2015 LIVING CONDITIONS MONITORING SURVEY REPORT

REPUBLIC OF ZAMBIA
CENTRAL STATISTICAL OFFICE

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Republic of Zambia

2015 LIVING CONDITIONS MONITORING SURVEY (LCMS) REPORT

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For the 2015 LCMS questionnaire, go to www.zamstats.gov.zm

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FOREWORD

Between April and May 2015, the Central Statistical Office (CSO) conducted the seventh Living Conditions Monitoring Survey (LCMS). Previous surveys had been conducted in 1996, 1998, 2002/2003, 2004, 2006 and 2010. The LCMS is a population-based, household survey that collects data using structured personal interviews with household members. The main objective of the LCMS is to measure the wellbeing of the Zambian population, and to provide trends in the different measures of societal wellbeing over time.

The 2015 LCMS was designed to provide estimates at national, rural/urban and province. Survey estimates were also disaggregated by age, sex and socio-economic strata. The survey collected information on the following areas of population wellbeing: general living conditions (including household size, composition and relationships; household incomes and expenditures; food production, food security and coping strategies), economic activity and employment status of household members, education level of household members, health status of household members (including child nutrition; incidence of ill health and injury; household deaths and cause of death), housing conditions (including type of housing; access to water and sanitation; and access to electricity), as well as access to community level socio-economic facilities such as health facilities, schools, banks and transport.

The results contained in this report are by no means exhaustive on the topics covered in the survey, but only highlight the salient aspects of the living conditions and wellbeing of the population at the time of the survey in April/May 2015. It should also be noted that the analysis of the 2015 LCMS data included a number of methodological improvements in the estimation of poverty levels among households, and thus users need to take caution when making comparisons of poverty estimates from this survey with those from past surveys. The 2015 LCMS raw data and any specialised tabulations can be made available to users upon request.

I would like to take this opportunity to thank the Government of the Republic of Zambia (GRZ) and the World Bank for funding the 2015 LCMS activities, from survey design and preparation to data analysis and report writing. I also thank the World Bank for providing technical assistance during the different stages of the survey undertaking. I would like to extend my sincere thanks and appreciation to the households surveyed, for their patience, cooperation and truthfulness when responding to our data collectors. I also thank all the staff involved in the different stages of the survey for ensuring the successful implementation of the 2015 LCMS. I hope the results contained in this report, and the rich dataset upon which it is based will find use among policy makers, programme managers, researchers and other data users for the betterment of the Zambian population.

John Kalumbi
DIRECTOR OF CENSUS & STATISTICS

November, 2016

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LIST OF ABBREVIATIONS

- AES - Adult Equivalent Scale
- BCG - Bacillus Calmete Guerin (Vaccination against Tuberculosis)
- CAPI - Computer Assisted Personal Interview
- CBN - Cost of Basic Needs
- CPI - Consumer Price Index
- CSA -Census Supervisory Area
- CSO - Central Statistical Office
- DPT - Diphtheria, Pertussis and Tetanus
- EA - Enumeration Area
- FGT - Foster, Greer and Thorbecke
- FHANIS - Food Security, Health, Agricultural and Nutrition Information System
- FNDP - Fifth National Development Plan
- GAR - Gross Attendance Rate
- GDP - Gross Domestic Product
- HFCE - Household Final Consumption Expenditure
- ILO - International Labour Organization
- LCMB - Living Conditions Monitoring Branch
- LCMS -Living Conditions Monitoring Survey
- LSAS - Large Scale Agricultural Stratum
- MDG - Millennium Development Goals
- MSAS - Medium Scale Agricultural Stratum
- NAR - Net Attendance Rate
- NAS - Non-Agricultural Stratum
- NFNC - National Food and Nutrition Commission
- PIC - Price and Income Commission
- PPES - Probability Proportional to Estimated Size
- PRSP - Poverty Reduction Strategy Paper
- PSDP - Private Sector Development Programme
- PSU - Primary Sampling Unit
- R- SNDP -Revised Sixth National Development Plan
- SAP - Structural Adjustment Programme
- SDGs - Sustainable Development Goals
- SSAS - Small Scale Agricultural Stratum
- TA - Technical Assistance
- TNDP - Transitional National Development Plan
- WB - World Bank
- ZDHS - Zambia Demographic and Health Survey

EXECUTIVE SUMMARY

The 2015 Living Conditions Monitoring Survey (LCMS) was conducted in April/May 2015 and covered 12,251 households in 664 randomly selected Enumeration Areas (EAs) across the ten (10) provinces of Zambia. The survey estimated a total population of 15.5 million, with 58.2 percent of that residing in rural areas. The survey estimated a total of 3,014,965 households, with an average household size of 5.1 persons.

Survey results indicate that 43 percent of the population aged 12 years or older were in paid employment while 27 percent were Full Time Student and 6.3 percent were Unpaid Family Workers. The unemployed made up 9.2 percent of the working age population.

Agricultural activity was the main economic activity engaged in by 58.5 percent of households (89.4 percent of households in rural areas and 17.9 percent in urban areas).

The survey estimated a national average monthly household income of K1,801 (K810 for households in rural areas and K3,152 for households in urban areas). On average, male-headed households earned more than female-headed households (K1,928 compared to K1,378, respectively). The average monthly household income ranged from K799 for households whose head had primary level of education to K8,354 for households whose head had degree or higher level of education. The survey estimated that the top 10 percent of households earned 56 percent of total household incomes while the bottom 50 percent earned seven percent of the total household incomes. The level of income inequality estimated by the Gini Coefficient was very high at 0.69 (0.60 for rural areas and 0.61 for urban areas). In rural areas, households spent 56.4 percent of their incomes on food and 43.6 percent on non-food expenditure items, while in urban areas expenditure on food amounted to 34.7 percent of household incomes and non-food expenditure amounted to 65.3 percent.

Survey results show that 54.4 percent of the population was living below the national poverty line at the time of the survey (76.6 percent in rural areas and 23.4 percent in urban areas). Further, the survey shows that 40.8 percent of the population were extremely poor (60.8 percent in rural areas and 12.8 percent in urban areas). At province level, the percentage of the population living in extreme poverty was highest in Western Province (73 percent), followed by Luapula Province (67.7 percent) and North western Province (67.6 percent). Lusaka Province had the least percentage of the population living in extreme poverty at 11 percent.

In rural areas 52.9 percent of households were living in Traditional huts and 29.9 percent in Improved Traditional huts, while in urban areas 47.4 percent of households were living in Detached houses and 22.5 percent in Flats or Multi-unit Apartments. Seventy percent of households owned the housing unit (91 percent in rural areas and 41 percent in urban areas). Seventy-eight percent of households had access to improved water sources (51.6 percent in rural areas and 89.2 percent in urban areas). Firewood was the most common source of energy for cooking in rural areas used by 84.5 percent of households, while charcoal was most common in urban areas used by 59.1 percent of households. Seventy-seven percent of households used pit latrine as toilet facility (own or shared); 86.1 percent in rural areas and 64.9 percent in urban areas.

CHAPTER 1
OVERVIEW ON ZAMBIA

1.1 Introduction

Zambia is a landlocked Sub-Sahara African country sharing boundaries with Malawi and Mozambique to the east; Zimbabwe, Botswana and Namibia to the south; Angola to the west; and the Democratic Republic of Congo and Tanzania to the north. The country lies between latitudes 8° and 18° south and longitudes 22° and 34° east. It covers 752,612 square kilometres.

About 58 percent of Zambia's total land area of 39 million hectares is potentially good for agricultural production although most of this arable land is yet to be fully utilised for the purpose of increasing the contribution of the agricultural sector to the national economy. Zambia`s agricultural activities is mainly rain fed despite having large water bodies that can easily be tapped for irrigation purposes.

Zambia`s economy still depends on Copper and Cobalt exports to generate most of its foreign exchange revenue. As a result, the country remains susceptible to high risk of external commodity price fluctuations.

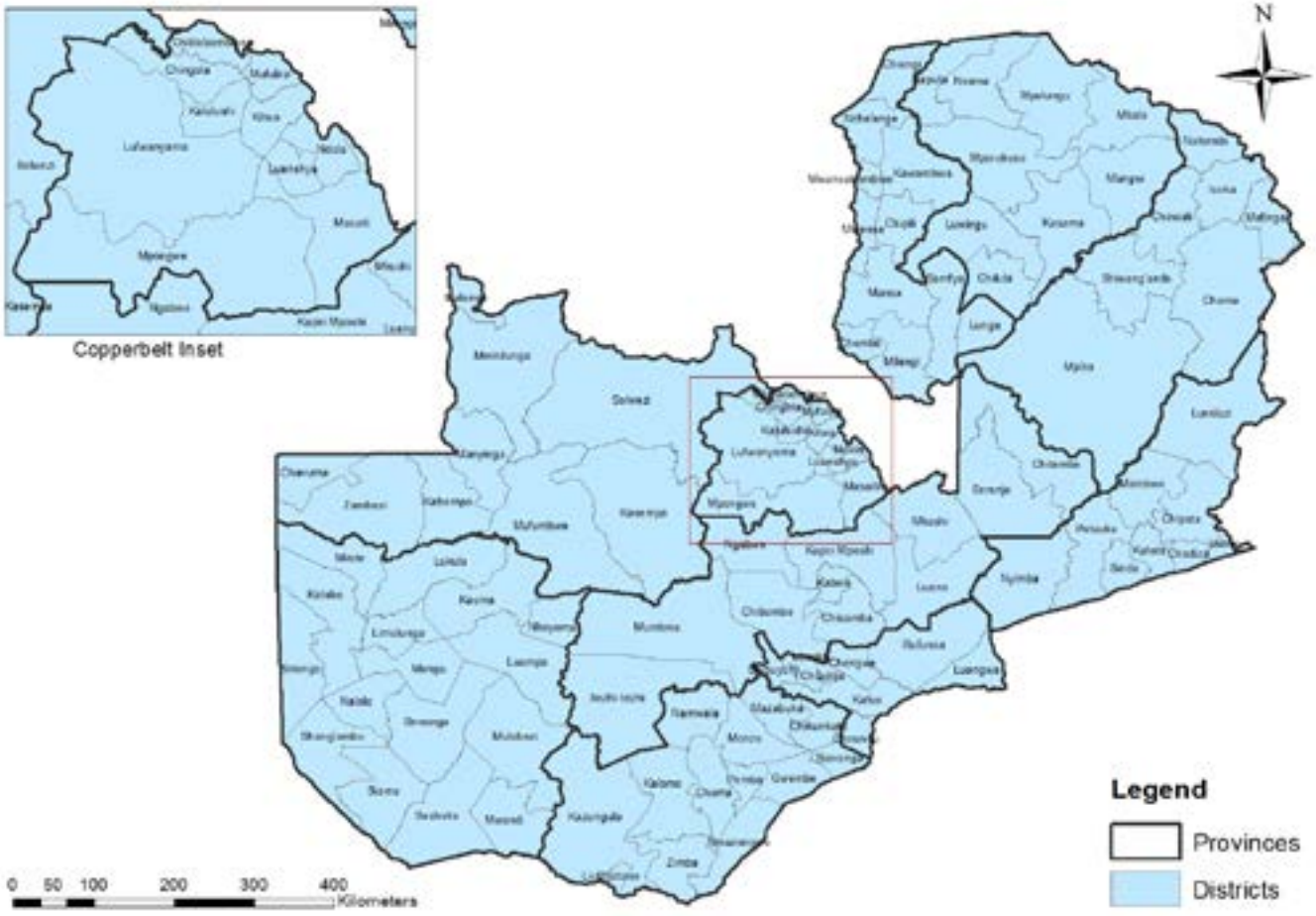
1.2. Land and the People

The population of Zambia increased almost threefold from 5.7 million in 1980 to an estimated 15.5 million in 2015. Between 2010 and 2015, the population increased from 13.1 to 15.5 million representing an increase of 18.3 percent. The country's average population density is 20.6 persons per square kilometre, while Lusaka Province has the highest density of 126.8 persons per square Kilometre. There are 73 ethnic groupings in Zambia with seven major languages used besides English which is the official language. The seven major languages are Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga.

1.3. Politics and Administration

Zambia got its independence from Britain in 1964. Politically, the country has gone through the era of multi-party democracy, 1964-72 and one party rule, 1972-1990 and later multi-party democracy since 1991 of governance. Administratively, the country is divided into 10 provinces namely Central, Copperbelt, Eastern, Luapula, Lusaka, Muchinga, Northern, North-Western, Southern and Western. These provinces are further subdivided into districts, constituencies and wards.

Figure 1.1: Administrative Map of Zambia showing Districts and Provinces.



1.4. Economy

Zambia's economic growth slowed down in 2015 similar to what was happening in most of the emerging and developing economies. The country`s economy was negatively affected by both internal and external macroeconomic pressures particularly the weakening in global trade and a slump in commodity prices (MoF, 2015 Economic Report). Plummeting copper prices, energy deficits, an unstable and depreciating Kwacha, increase in inflation and a decline in global demand for copper, which accounts for approximately 70% of the country's external revenue earnings, dampened the prospects for normal economic growth. Zambia's economic growth in 2015 was estimated at 2.9% (CSO, National Accounts 2016).

Most of the population in Zambia (58.2 percent) live in rural areas and are dependent on agriculture for their livelihood. Thus, addressing basic challenges faced by the agricultural community would not only improve household food security but also help quicken the process of poverty reduction. One of the main objectives of the Revised Sixth National Development Plan (R-SNDP) was to diversify the economy away from mining to agriculture. It was envisaged that Investment in the agriculture industry would enhance agricultural production, household food security and create room for increased exports of agricultural related products.

The country`s vision is to become a prosperous middle income country by 2030 (Vision 2030) via enhanced private sector participation. Thus, Zambia has embarked on the Private Sector Development Programme (PSDP), which is meant to attract both domestic and foreign investment in the various sectors of the economy. This is to be achieved through Zambia's broad macro-economic and social policies, which include pro-poor economic growth, low inflation, stable exchange rates and financial stability.

Table 1.1: Gross Domestic Product (GDP), Inflation and Exchange Rates, Zambia, 2000-2015.

Year	GDP at Current Prices (K' billions)	GDP at constant 2010 prices (K' billions)	Per capita GDP at current prices (K'000)	Per capita GDP at constant 2010 prices (K'000)	GDP growth rate %	Average Annual LME Copper Price	Average annual Inflation rate %	Average exchange rates
2000	11,201.00	47,404.9	1,143.86	4,841.0	3.9	-	25.9	3,112
2001	14,748.80	49,925.3	1,461.72	4,948.0	5.3	-	21.7	3,611
2002	18,447.00	52,174.9	1,772.11	5,012.2	4.5	1,552.48	22.2	4,307
2003	23,201.90	55,798.5	2,159.41	5,193.2	6.9	1,779.15	21.5	4,911
2004	29,729.90	59,722.5	2,680.86	5,385.4	7.0	2,864.94	18.0	4,846
2005	37,189.30	64,043.7	3,250.43	5,597.6	7.2	3,678.89	18.4	4,562
2006	45,964.20	69,105.6	3,896.00	5,857.5	7.9	6,722.14	9.1	3,698
2007	56,263.00	74,877.5	4,627.00	6,157.8	8.4	7,118.53	10.7	4,078
2008	67,088.70	80,698.5	5,536.00	6,659.0	7.8	6,955.88	12.4	3,777
2009	77,348.30	88,139.1	5,997.00	6,833.6	9.2	5,148.74	13.5	5,079
2010	97,215.90	97,215.9	7,425.00	7,425.0	10.3	7,534.78	8.2	4,816
2011	114,029.70	102,675.1	8,311.56	7,483.9	5.6	8,820.99	6.4	4,872
2012	131,271.90	110,450.3	9,280.14	7,808.2	7.6	7,949.95	6.6	5,170
2013	151,330.80	116,118.4	10,379.25	7,964.2	5.1	7,326.17	7.0	5,377
2014	166,954.40	121,953.2	11,113.25	8,117.8	5.0	6,859.14	7.8	5,910
2015	183,652.60	125,435.8	11,868.54	8,106.28	2.9	5,501.69	10.0	8.63

Note: 2015 is rebased exchange rate

1.5 Developments in the Social Sectors

Educational indicators reflect negative trends relative to the 2010 survey. For instance, the proportion of pupils in the right grade in line with the correct age (Net attendance rates) in 2015 for grades 1-7, 8-9 and 10-12 were 78.6, 30.2, and 25.6 percent, respectively. The gross attendance rates for grades 1-7 and 8-9 show similar trends to the net attendance rates.

The gross attendance rate for grades 10-12 reduced from 74.1 percent in 2010 to 51.2 percent in 2015.

Health indicators have also shown some improvements since the early 1990s. The Zambia Demographic and Health Surveys in 2007 and 2014 found the HIV and AIDS prevalence to be 14 and 13.3 percent, respectively.

Maternal mortality increased from 649 per 100,000 live births in 1996 to 729 maternal deaths per 100,000 live births in the period 2001/2002. In 2007, maternal mortality declined to 591 deaths per 100,000 live births. The 2013/2014 ZDHS indicates a further decline to 398 deaths per 100,000 live births.

Child mortality has consistently declined since 1996. Infant mortality rate per 1,000 live births was 109, 95, 70 and 45 in 1996, 2001/2002, 2007 and 2013/2014 ZDH surveys, respectively.

Under-five mortality has equally been declining over the years. It fell from 197 deaths per 1,000 live births in 1996 to 168 deaths per 1,000 live births in 2001/2002, 119 deaths per 1,000 live births in 2007 and further went down to 75 deaths per 1,000 live births in 2013/14.

CHAPTER 2
SURVEY BACKGROUND AND SAMPLE DESIGN METHODOLOGY

2.1 Survey background

Following change of government in 1991, the Zambian economy was liberalized anchored on free market policies. The newly formed government then embarked on a vigorous Structural Adjustment Programme (SAP) as the main developmental undertaking to be used to reform the ailing economy. SAP had its own share of successes and failures. Arising from the observed negative effects of this reform process, the Government of the Republic of Zambia with its co-operating partners decided to put in place a mechanism for monitoring and evaluating the welfare of the Zambian population through Priority Surveys I(PSI 1991) and II(PSII 1993).

The Living Conditions Monitoring Surveys (LCMSs) evolved from these monitoring and evaluation mechanisms. The first LCMS survey was conducted in 1996. Since then, seven surveys have been undertaken inclusive of the 2015 LCMS.

Each of the successive LCMS has been used to gauge effectiveness of Government policies and development programmes. For instance, the LCMS of 2002/2003 and 2004, which coincided with the period of the Transitional National Development Plan (TNDP) and the Poverty Reduction Strategy Paper (PRSP) covering the period 2002- 2005, were mainly used to monitor and evaluate these two Government policies and programmes.

The 2006 and 2010 LCMSs were mainly designed to help monitor and evaluate the Fifth National Development Plan (FNDP) covering the period 2006-2010. The FNDP was part of the long-term programme of the Vision 2030 targeting at the transformation of Zambia into "A prosperous middle-income nation by 2030".

In April/May 2015, CSO conducted the seventh LCMS which will help evaluate the achievements that have been made in meeting the 2015 MDGs targets and provide benchmark indicators for the Sustainable Development Goals (SDGs) and the Seventh National Development Programme (7NDP).

2.2 Objectives of the 2015 Living Conditions Monitoring Survey

The 2015 LCMS was mainly intended to monitor and highlight the living conditions of the Zambian society. The survey also included a set of priority indicators on poverty and living conditions that are periodically monitored and evaluated.

The following are some of the identified key objectives of the 2015 LCMS:

1. **Monitor the level of poverty and its distribution in Zambia;**
2. **Monitor the impact of government policies and programmes on the wellbeing of the Zambian population;**
3. **Provide various users with a set of reliable indicators against which to monitor progress and development;**
4. **Identify vulnerable groups in society and enhance targeting of pro-poor policies and programmes.**

For the purpose of measuring the above objectives, the LCMS questionnaire covered the following topics:

- *Demography and Migration*
- *Orphanhood*
- *Marital Status*
- *Health*
- *Education*
- *Economic Activities*
- *Income*
- *Household Agricultural Production*
- *Household Expenditure*
- *Household Assets*
- *Household Amenities and Housing Conditions*
- *Household Access to Facilities*
- *Child Health and Nutrition*
- *Community Developmental Issues*
- *Death in Households*
- *Self-assessed Poverty, Shocks to Household Welfare and Household Coping Strategies.*

2.3 Sample Design and Coverage

The Central Statistical Office (CSO) has consistently been using nationally representative Cross-Sectional household surveys with varied sample sizes to measure, monitor and evaluate the welfare of the Zambian society except in the 2002/3 survey where a longitudinal sample was used.

The 2015 survey was designed to cover a representative sample of 12,260 non-institutionalised private households residing in both rural and urban parts of the country. A total of 664 Enumeration Areas (EAs) were drawn from a total of 25,600 EAs nationwide. The survey was designed to produce reliable estimates at national, provincial and Residence (rural/urban) levels.

2.3.1 Sample Stratification and Allocation

The sampling frame used for the 2015 LCMS was developed from the 2010 Census of Population and Housing. The country is administratively demarcated into 10 provinces, which are further divided into districts.

The districts are further subdivided into constituencies, which are in turn divided into wards. For the purposes of conducting household based surveys, wards are further divided into Census Supervisory Areas (CSAs), which are subsequently subdivided into Enumeration Areas (EAs). The EAs constituted the Primary Sampling Units (PSUs) for the survey.

In order to have reasonable estimates at provincial level and at the same time take into account variation in the sizes of the provinces, the survey adopted the Optimal Square Root sample allocation method (Leslie Kish, 1987). This approach offers a better compromise between equal and proportional allocation, i.e. small sized strata (province) are allocated larger samples compared to proportional allocation. The allocation of the sample points to rural and urban strata was approximately proportional. Over the years the sample distribution of the LCMSs were initially the same but have since been changed in order to meet desired levels of precision for the key domains of analysis. Table 2.1 shows the allocation of PSUs by Province and Residence.

Table 2.1: Total number of selected SEAs by Province, Residence, Zambia, 2015.

Province	Rural	Urban	Total
Central	44	22	66
Copperbelt	40	32	72
Eastern	50	22	72
Luapula	42	20	62
Lusaka	42	36	78
Muchinga	40	18	58
Northern	44	20	64
North Western	40	20	60
Southern	48	22	70
Western	44	18	62
All Zambia	**434**	**230**	**664**

2.3.2. Coverage

The 2015 LCMS was undertaken using a sample of 664 EAs. All rural and urban households were explicitly stratified into groups based on the scale of their agricultural activities and type of residential area, respectively. Rural households were classified as Small, Medium, Large Scale farming and non-agriculture households. In case of households residing in urban areas, the survey adopted the classification system used by the Local authorities (Low, Medium and High cost residential areas).

The survey was designed to cover a representative sample of 12,260 non-institutionalised private households residing in both rural and urban parts of the country. The sample was intended to give reliable estimates at national, provincial and rural/urban levels.

Four of the original sampled EAs were replaced due to logistical challenges and flooding. Most of the replacements were done in North Western and Muchinga provinces. Since the sample was drawn with a provision for replacements, the targeted number of EAs was achieved representing 100 percent coverage at national level. To account for the effects of replacements, post-stratification adjustment of the weights was done.

2.3.4 Selection of Enumeration Areas (EAs)

The EAs in each stratum were selected as follows:

Calculating the sampling interval **(I)** of the stratum.

$$I = \frac{\sum_i M_i}{a}$$

Where: $\sum_i M_i$ = the total stratum size

a = the number of EAs allocated to the stratum

Calculating the cumulated size of the cluster (EA).

Calculating the sampling numbers **R, R+I, R+2I... R+(A-1) I**, where **R** is the random start number between 1 and I.

Comparing each sampling number with the cumulated sizes.

The first EA with a cumulated size that was greater or equal to the random number was selected. The subsequent selection of EAs was achieved by comparing the sampling numbers to the cumulated sizes of EAs in the same manner.

2.3.5 Selection of Households

The 2015 survey employed a two-stage stratified cluster sample design. During the first stage, 664 EAs were selected with Probability Proportional to Estimated Size (PPES) within the respective strata. The measure of size used was population figures taken from the frame developed from the 2010 Census of Population and Housing. During the survey, listing of all the households in the selected EAs was done before a sample of households to be interviewed was drawn. In the case of rural EAs, households were listed and stratified according to the scale of their agricultural activity. Therefore, there were four explicit strata created at the second sampling stage in each rural EA: the Small Scale Agricultural Stratum (SSAS), the Medium Scale Agricultural Stratum (MSAS), the Large Scale Agricultural Stratum (LSAS) and the Non-Agricultural Stratum (NAS). For the purposes of the survey, 7, 5 and 3 households were selected from the SSAS, MSAS and NAS, respectively. Large scale households were selected on a 100 percent basis. Urban EAs were explicitly stratified into Low Cost, Medium Cost and High Cost areas based on CSO's and local authorities' classification of residential areas.

In each rural EA, a minimum of 15 households were selected in the absence of large scale agricultural households, while 25 households in each urban EA were selected.

The selection of households from various strata was preceded by assigning each listed household with a

sampling serial number. The circular systematic sampling method was used to select households. The method assumes that households are arranged in a circle (G. Kalton, 1983) and the following relationship applies:

Let **N=nk**
Where:

N = total number of households assigned sampling serial numbers in a stratum
n = total desired sample size to be drawn from a stratum in an **EA**
k = the sampling interval in a given EA calculated as **k=N/n.**

2.4. Data collection

2.4.1. Computer Assisted Personal Interview (CAPI)

Data collection for the 2015 LCMS was done over the period of April/May. Face-to- face personal interviews were conducted using a structured electronic questionnaire via the Computer Assisted Personal Interviewing (CAPI) technique. The questionnaire was designed to collect information on the various aspects of the living conditions of the households using CAPI. Tablets were loaded with the World Bank (WB) Survey Solutions software. This was the first time that LCMS data was collected using the CAPI method.

Data collection for the 2015 LCMS involved 332 Enumerators, 54 Supervisors and 45 Master Trainers. The WB also provided Technical Assistance (TA) throughout the survey Process.

Table 2.2: Number of Field Staff by Province, Zambia, 2015.

Province	FIELD STAFF	
	Enumerator	Supervisor
Central	33	5
Copperbelt	36	6
Eastern	40	6
Luapula	31	5
Lusaka	39	6
Muchinga	25	4
Northern	32	6
N/western	30	5
Southern	35	6
Western	31	5
Total	**332**	**54**

Source: CSO, LCMS

2.4.2 Household Response Rate

The household response rate was calculated as the ratio of originally selected households with completed interviews over the total number of households selected. The household response rate for the 2015 LCMS was 98 percent at National level. The household selection technique allows for a systematic method of replacing non-responding households.

Table 2.3: Household Response Rate by Province, Zambia, 2015.

Province	Response Rate
Central	99
Copperbelt	97
Eastern	99
Luapula	94
Lusaka	98
Muchinga	99
Northern	94
North Western	100
Southern	99
Western	100
All Zambia	**98**

Source: CSO, LCMS

2.5. Estimation procedure

2.5.1. Sample Weights

Due to the disproportionate allocation of the sample points to various strata, sampling weights are required to correct for differential representation of the sample at the national and sub-national levels. The weights of the sample are in this case equal to the inverse of the product of the two selection probabilities employed at each stage of selection.

Therefore, the probability of selecting an EA was calculated as follows:

$$P_{hi}^{1} = \frac{a_h M_{hi}}{\sum_i M_{hi}}$$

Where:

P_{hi}^{1} = the first selection probability of **EAs**

a_h = the number of EAs selected in stratum **h**

M_{hi} = the size (in terms of the population count) of the ith EA in stratum **h**

$\sum_i M_{hi}$ = the total size of the stratum h (I = 1, 2, 3...n)

The selection probability of the household was calculated as follows:

$$P_{hi}^{2} = \frac{n_{hi}}{N_{hi}}$$

Where:

P_{hi}^{2} = the probability of selecting a household

n_{hi} = the number of households selected from the ith EA of h stratum

N_{hi} = the total number of households listed in an ith EA of h stratum.

Therefore, the EA specific sample weight was calculated as follows:

$$W_{hi}^{i} = \frac{1}{P_{hi}^{1} P_{hi}^{2}}$$

W_{hi}^{i} is called the PPS sample weight. In the case of rural EAs which have more than one second stage stratum, the first selection probability is multiplied with separate stratum- specific second stage selection probabilities. Therefore, the number of weights in each rural EA depends on the number of second stage strata that are available.

2.5.2. Post-Stratification Adjustment

The 2015 LCMS collected data on all usual household members in section 1 of the questionnaire. The weighted sum of the total number of household members (household size) is supposed to give a fairly good and accurate estimate of the current population in a particular domain such as province, residence and national level for which this survey was designed. The expression which is used to obtain the population total based on the base-weights is as follows:

$$Y^{\wedge} = \sum_{h} \sum_{i} \sum_{j} W_{hi}^{'} Y_{hij}$$

Where

Y = the population based on base-weights

$W_{hi}^{'}$ = the weight of the sample households in the ***i*th EA** of stratum ***h***

Y_{hij} = the household size **(y)** of the jth sample household with the ith EA of stratum **h**

The weighted results generated by the 2015 LCMS underestimated the total population when compared to the CSO projected population. This was mainly due to under-coverage of households during listing and the lack of updating the cartographic frame to reflect population growth over time. Therefore, the base-weights were adjusted to reflect the 2015 population projections. The procedure for adjusting the weights based on population projections is given below:

$$r = \frac{Y_{proj}}{Y^{\wedge}}$$

Where

r = adjustment factor, which represents growth in the population

Y_{proj} = the Projected Population of the domain (Province) from the 2010 Census Projections Report

Y^= the estimated population using base weights.

Therefore, the final weight was obtained as follows;

$$W_{hi} = W_{hi}^{'} r$$

Where

W_{hi} = the adjusted final household weight.

2.5.3. Estimation process

In order to correct for differential representation, all estimates generated from the 2015 LCMS data were weighted expressions. Therefore, if Y_{hij} is an observation on variable **Y** for the **j*th*** household in the **i*th*** EA of the **h*th*** stratum, then the estimated total for the hth stratum is expressed as follows:

$$Y_{h}^{\wedge} = \sum_{i=1}^{a_h} W_{hi} \sum_{j=1}^{n_h} Y_{hij}$$

Where:

$Y^{\wedge}_{h}$ = the estimated total for the **h*th*** stratum

i = 1 to **ah:** the number of selected clusters in the stratum (where **a** is the cluster)

j = 1 to nh: the number of sample households in the stratum In order to get the national and provincial estimates the following estimator is used:

$$\hat{Y} = \sum_{r=1}^{n} Y_{h}$$

Where:

$\hat{Y}$ = the national total estimate

n = the number of strata in a domain.

2.6 Data Processing and Analysis

The 2015 LCMS data was electronically collected using the Computer Assisted Personal Interviewing (CAPI) technique. Using tablets loaded with the WB Survey Solutions software, data collected from the field was transmitted to CAPI command Centre created in all the provincial headquarters. If accepted, the same information was then sent to the HQ command Centre for further scrutiny in terms of completeness and accuracy. However, incomplete questionnaires were sent back to the field staff for verification and subsequent correction. Once that was done, it was re-transmitted through the relevant channel to the HQ to be part of the verified dataset.

After data collection, the data were subjected to extensive checks on their validity and consistency in order to facilitate analysis using statistical software. A master version of the files was maintained in ASCII format, since this is the universal standard readable format by other software. However, CSO provides data sets in SAS, Stata, SPSS and ASCII formats depending on the clients' choice.

2.7. Limitations of the Living Conditions Monitoring Surveys (LCMS)

The Living Conditions Monitoring Surveys (LCMS) are typically undertaken on a sample basis as opposed to conducting a complete census survey. This implies that errors of estimation will always exist regardless of the perfection in the underlying design of the survey. Further, the 2015 LCMS poverty analysis is based on data from cross- sectional sample surveys as opposed to longitudinal surveys. Serious limitation of these designs is that results cannot directly be generalised to the rest of the year since the emerging poverty outcome will depend on the month or period or season when the data was collected. Therefore direct comparison of the results from cross-sectional surveys is only possible if and only if the surveys were undertaken during the same period or season.

Another limitation of the 2015 analysis of poverty emanates from the use of household consumption data which is collected using the Recall as opposed to the Diary methods. It is obvious that some households suffer from memory lapses and may not be in a position to account for all their consumption expenditures which they could have incurred.

Finally, lack of appropriate community prices to be used in deriving spatial and temporal price indices which are necessary for normalizing welfare is another limitation of the 2015 poverty analysis. Normalising cost of living differences across space and time requires the use of prices that each and every household is facing. The 2015 poverty analysis relied on price data from the Consumer Price Index (CPI) which is mainly carried out in urban parts of all the districts in Zambia. The set of prices from the CPI survey may not totally correspond to the set of prices that households across Zambia face.Other specific limitations have been highlighted in their respective chapters.

CHAPTER 3
GENERAL CONCEPTS & DEFINITIONS

3.1. Introduction

The concepts and definitions used in this report conform to the standard used in household surveys. These definitions are the same as those used in the previous Living Conditions Monitoring Surveys (LCMSs). Specific definitions are given within their relevant chapters.

3.2. General Concepts and Definitions

Building: A building is defined as any independent structure comprising one or more rooms or other spaces, covered by a roof and usually enclosed with external walls or dividing walls, which extend from the foundation to the roof.

For the purpose of the survey, partially completed structures were considered as buildings if they were used for living purposes. In rural areas, huts belonging to one household and grouped on the same premises were considered as one building.

Housing Unit: A Housing Unit is an independent place of abode intended for habitation by one household. This had direct access to the outside such that the occupants can come in or go out without passing through anybody else's premises, that is, a housing unit had at least one door which directly led outside in the open or into a public corridor or hallway. Structures which were not intended for habitation such as garages and barns, classroom etc., but were occupied as living quarters by one or more households at the time of the survey were also treated as housing units.

Household: A household is defined as a group of persons who eat and lived together. These people may or may not be related by blood, but made common provision for food and other essentials for living. A household comprised several members and in some cases had only one member.

Usual Member: The de jure approach is adopted for collecting data in all the Living Conditions Monitoring Surveys on household composition as opposed to the de facto approach which only considers those household members present at the time of enumeration. The de jure definition relies on the concept of usual residence.

A usual member of a household is considered to be one who had been living with a household for at least six months prior to the survey. Newly married couples were regarded as usual members of the household even if one or both of them had been in the household for less than six months. The newly born babies of usual members were also considered as usual members of the household.

Members of the household who were at boarding schools or temporarily away from the household, e.g. away on seasonal work, in hospital, visiting relatives or friends, but who normally live and eat together, were included in the list of usual members of the household.

Head of Household: This is the person all members of the household regarded as the head and who normally makes day-to-day decisions concerning the running of the household. The head of the household could be male or female.

In cases of shared accommodation and the persons or families sharing were identified as separate households, the Enumerator had to find out who was the head of the separate households. If they were identified as one household and the household members could not identify or consider one person as being the head, the oldest person had to be taken as the head. In polygamous households, the husband was assigned to the most senior wife's household if the wives were identified as running separate households. This was done to avoid double counting. In this case the second spouse automatically became the head of her household.

Background Variables: The analysis in this report uses seven main background variables:

- Province
- Residence (rural and urban)
- Sex of head of household
- Stratum
- Socio-economic group
- Poverty status, and
- Age group.

Residence Urban Area: The Central Statistical Office (CSO) defines an urban area mainly based on two criteria:

1. Population size, and
2. Economic activity.

An urban area is one with minimum population size of 5,000 people. In addition, the main economic activity of the population must be non-agricultural, such as wage employment. Finally, the area must have basic modern facilities, such as piped water, tarred roads, post office, police post/station, health centre, etc.

Stratum: Survey households were classified into different strata, based on the type of residential area in urban areas and on the scale of agricultural activities in rural areas. The urban areas were pre-classified while the rural strata were

established during the listing stage at the level of each household. These same groupings were used to stratify urban and rural households during the sampling process, urban strata being defined at the first stage and rural households at the second stage.

The presentation of results in this report uses seven strata as follows:

Rural Areas:
- Small-scale agricultural households
- Medium scale agricultural households
- Large-scale agricultural households
- Non-agricultural households

Urban Areas:
- Low cost housing residential areas
- Medium cost housing residential areas
- High cost housing residential areas.

These seven groups are mutually exclusive, and hence any given household belongs to one and only one stratum. The reader should note that within urban areas these strata constitute sampling domains which refer to areas rather than individual households. Therefore, a poor household can be living in a high cost housing area (an example might be servants' quarters), or a rich person may live in a low cost area.

Demographic Characteristics: Refers to socioeconomic characteristics of a population expressed statistically, such as age, sex, education level, income level, marital status, occupation and employment status, and average size of the household.

Socio-Economic Group: All persons aged 12 years or older were assigned a socio-economic status. These socio-economic groupings were based on the main economic activity, occupation, employment status and sector of employment of an individual.

In total 11 socio-economic groups were specified as follows:
- **Subsistence farmers,** i.e. those whose main current economic activity was farming and whose occupational code indicated subsistence agricultural and fishery workers, ISCO code 6210, forestry workers ISCO code 6141, fishery workers, hunters and trappers, ISCO codes 6151, 6152, 6154, respectively.
- **Commercial farmers,** i.e. those whose main current economic activity was farming and whose occupational code indicated market oriented skilled agricultural workers, ISCO codes 6111-4, and market oriented crop and animal producers, ISCO code 6130.
- **Government employees,** comprising both Central and Local Government employees.
- **Parastatal employees** were those employees who worked for firms/companies which were partly or wholly owned/controlled by Government.
- **Formal employment,** i.e. those whose employment was accompanied with social security entitlements such as pension, paid leave or gratuity.
- **Informal employment,** i.e. those whose employment does not provide any entitlement to some social security scheme including pension, paid leave or gratuity.
- **Self-employed outside agriculture,** i.e. their employment status was self-employed on the basis of being Own-account workers and their main current economic activity was running a non-farming business.
- **Unpaid family worker,** i.e. a person that worked in a family business or a farm with no entitlement to payment of a salary or wage.
- **Workers not elsewhere classified,** based on employment status.
- **Unemployed** were those who were neither working nor running a business, but were looking for work or means to do business, or neither working nor running a business and not looking for work or means to do business, but available and wishing to do so.
- **Inactive persons** were those whose main current activity was full time student, full time homemaker, retired or unable to work because of old age or for reasons of ill health or disability.

Poverty Status: All households and household members were assigned a poverty status based on their household consumption expenditure. Each member of a household was assigned the same poverty status based on the household's adult equivalent consumption expenditure.

The households and individuals were classified as non-poor, moderately poor or extremely poor. The construction of the different poverty lines is described in detail in Chapter 12.

3.3. Conventions

The following conventions are adopted for this publication.
- Most percentages and proportions are presented to the first decimal place in the 2015 LCMS report. However, in some previous LCMSs the general rounding rules were applied. Thus, when summing up percentages, the total will not always be 100 percent.
- When obtaining total population and household figures, the numbers are rounded to the nearest 1,000, following the general rounding rules.
- In the 2015 LCMS we included a missing values column in the tables.
- "-" Means no observation.

CHAPTER 4
GENERAL DEMOGRAPHIC CHARACTERISTICS

4.1. Introduction

The demographic characteristics of any country are important in understanding the living conditions of the people through the impact they may have on the prevailing socio- economic situation.

Furthermore, data on the demographic characteristics provide background information and the necessary framework for the understanding of other aspects of the population, including economic activity, poverty and food security. For instance, information on all aspects of the living conditions of the population become more useful when disaggregated by demographic characteristics such as age, sex and geographical areas.

The 2015 LCMS collected data on the following demographic characteristics:

- *Population size, age, sex and geographical distribution*
- *Household size and headship*
- *Marital status*
- *Disability*
- *Orphanhood*
- *Deaths in households.*

4.2. Population Size and Distribution

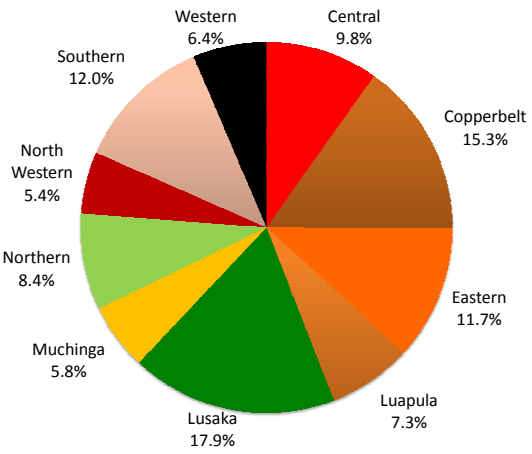
Table 4.1 shows the population distribution by residence and province. Residence analysis shows that 58.2 percent of the population resided in the rural areas and 41.8 percent resided in the urban areas. The most urbanised provinces are Lusaka Province (85.7 percent) and Copperbelt Province (83 percent). The least urbanised provinces were Eastern (12.2 percent) and Western provinces and (12.5 percent) respectively. Notably, North Western Province at 27.2 percent is urbanising quite rapidly surpassing Southern and Central provinces in terms of its' share of the urban population.

The population of Zambia was estimated at 15,473,905. Lusaka Province recorded the highest proportion of the population, at 17.9 percent, followed by Copperbelt Province, at 15.3 percent. North-western Province had the lowest proportion of the population, at 5.4 percent.

Table 4.1: Percentage Distribution of Population by Province, Residence, Zambia, 2015.

Province	Number of Persons	Rural Percentage Share	Urban Percentage Share	Total
Total Zambia	**15, 473,905**	**58.2**	**41.8**	**100**
Central	1,515,086	74.6	25.4	100
Copperbelt	2,362,207	17.0	83.0	100
Eastern	1,813,445	87.8	12.2	100
Luapula	1,127,453	79.0	21.0	100
Lusaka	2,777,439	14.3	85.7	100
Muchinga	895,058	76.3	23.7	100
Northern	1,304,435	81.0	19.0	100
North- Western	833,818	72.8	27.2	100
Southern	1,853,464	74.1	25.9	100
Western	991,500	87.5	12.5	100

Figure 4.1: Percent Share of Population by Province, Zambia, 2015.



4.3. Age and Sex Distribution of the Population

Table 4.2 shows the distribution of the population by age group and sex. The distribution across ages is concentrated on the younger age cohorts. About 65 percent of the population is below the age of 25 years, indicating that the country has a young population.

Table 4.2: Percentage Distribution of the Population by Age Group and Sex, Zambia, 2015.				
Age Group	Male	Female	Both	Number of persons
Total	**100**	**100**	**100**	**15,473,905**
0 - 4	9.9	10.0	9.9	1,536,048
5 - 9	18.8	18.7	18.8	2,902,927
10- 14	14.3	14.2	14.2	2,201,329
15 - 19	12.6	12.6	12.6	1,951,215
20 - 24	9.5	9.6	9.6	1,483,666
25 - 29	7.1	7.9	7.5	1,163,404
30 - 34	6.1	6.3	6.2	960,741
35 - 39	5.7	5.5	5.6	868,372
40 - 44	4.5	3.9	4.2	647,030
45 - 49	3.3	2.8	3.0	466,454
50 - 54	2.3	2.4	2.3	362,640
55 - 59	1.9	1.8	1.9	287,784
60 - 64	1.2	1.4	1.3	198,116
65 +	2.8	3.0	2.9	444,177

Table 4.3 and figure 4.2 shows the distribution of the population by sex and age group and broad age group, respectively. Results indicate that there are proportionately more females (51 percent) than males (49 percent) in Zambia. This can be attested to by the sex ratio of about 95 males per 100 females. By broad age group, 46.5 percent of the population in rural areas is below the age 15 compared to 38 percent in urban areas. The population aged 15-64 constitutes 50 percent of the population and 60 percent of the urban population (Figure 4.2).

Table 4.3: Percentage Distribution of the Population by Age Group, Sex Ratio and Sex, Zambia, 2015.							
Age Group	Total	Percent Total	Male	Percent Male	Female	Percent female	Sex Ratio
Total	**15,473,905**	**100**	**7,525,764**	**49**	**7,948,141**	**51**	**94.7**
0 - 4	1,536,048	100	743,977	48	792,072	52	93.9
5 - 9	2,902,927	100	1,415,299	49	1,487,628	51	95.1
10- 14	2,201,329	100	1,075,914	49	1,125,415	51	95.6
15 - 19	1,951,215	100	950,656	49	1,000,559	51	95.0
20 - 24	1,483,666	100	716,973	48	766,793	52	93.5
25 - 29	1,163,404	100	532,679	46	630,726	54	84.5
30 - 34	960,741	100	458,357	48	502,385	52	91.2
35 - 39	868,372	100	430,014	50	438,358	50	98.1
40 - 44	647,030	100	337,592	52	309,439	48	109.1
45 - 49	466,454	100	245,658	53	220,795	47	111.3
50 - 54	362,640	100	175,159	48	187,481	52	93.4
55 - 59	287,784	100	146,635	51	141,150	49	103.9
60 - 64	198,116	100	89,095	45	109,020	55	81.7
65 +	444,177	100	207,856	47	236,321	53	88.0

Figure 4.2: Percentage Distribution of the Population by Age and Sex, Zambia, 2015

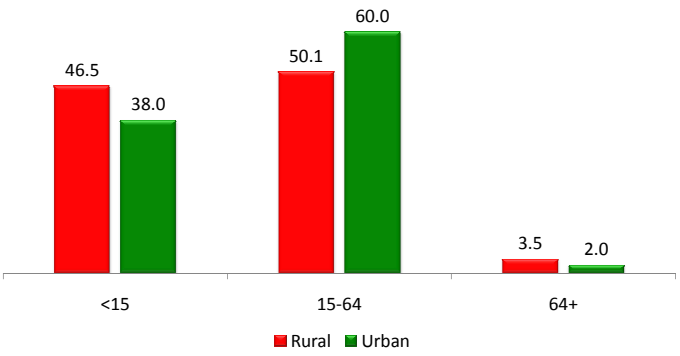


Table 4.4 shows the percentage distribution of the population by Residence, sex and age group. Analysis of the age specific sex ratio (number of males per 100 females) by Residence indicates that there were more females than males in the rural areas between the ages 0 and 39 years. However, the sex ratio for those aged between 40 and 59 years, shows that there were more males than females in the rural areas.

In urban areas, the age specific sex ratio shows that they were more females than males in the urban areas between the ages 0 and 34 years and those aged 60 years or older. The age specific sex ratio for those aged between 35 to 49 and 50-59 years years were greater than 100 indicating presence of more males than females in urban areas.

Table 4.4: Percentage Distribution of the Population by Residence, Sex and Age Group, Zambia, 2015.								
Age Group	Rural				Urban			
	Male	Female	Total	Sex Ratio	Male	Female	Total	Sex Ratio
Total Zambia	**4,401,152**	**4,600,495**	**9,001,647**	**95.7**	**3,124,612**	**3,347,646**	**6,472,258**	**93.3**
0 - 4	475,118	517,227	992,345	91.9	268,858	274,844	543,703	97.8
5 - 9	902,729	925,728	1,828,457	97.5	512,570	561,900	1,074,470	91.2
10 - 14	677,304	684,887	1,362,191	98.9	398,609	440,529	839,138	90.5
15 - 19	542,701	550,561	1,093,262	98.6	407,955	449,998	857,953	90.7
20 - 24	371,063	400,622	771,684	92.6	345,811	366,171	711,982	94.4
25 - 29	276,178	311,979	588,157	88.5	256,501	318,747	575,248	80.5
30 - 34	234,494	258,614	493,107	90.7	223,863	243,771	467,634	91.8
35 - 39	216,593	229,878	446,471	94.2	213,421	208,480	421,901	102.4
40 - 44	180,404	159,155	339,560	113.4	157,187	150,283	307,471	104.6
45 - 49	137,293	128,094	265,387	107.2	108,366	92,701	201,067	116.9
50 - 54	98,441	116,015	214,456	84.9	76,718	71,466	148,184	107.4
55 - 59	88,104	88,015	176,118	100.1	58,531	53,135	111,666	110.2
60 - 64	54,468	63,247	117,715	86.1	34,628	45,773	80,401	75.7
65 +	146,263	166,473	312,736	87.9	61,593	69,848	131,441	88.2

Table 4.5 shows the population and household distribution by socio-economic strata and Residence. Results show that 90 percent of the population in rural areas comprised small scale farming households and the stratum with the least percentage share was the large scale, at 0.2 percent. In urban areas, 77.6 percent of the population resided in low cost areas while 9.3 percent resided in high cost areas. For both rural and urban areas, the distribution of households across strata follows that of their respective population.

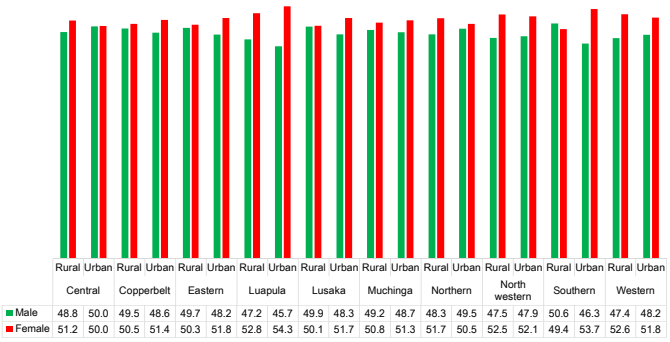
Table 4.5: Percentage Distribution of the Population by Stratum, Zambia, 2015.				
Stratum	Population	Percentage share	Households	Percentage share
Rural				
Total Rural	**9,001,647**	**100**	**1,718,060**	**100**
Small Scale	8,103,729	90.0	1,542,587	89.8
Medium Scale	403,872	4.5	56,974	3.3
Large Scale	21,348	0.2	2,807	0.2
Non-Agriculture	472,699	5.3	115,692	6.7
Urban				
Total Urban	**6,472,258**	**100**	**1,296,905**	**100**
Low Cost	5,021,227	77.6	996,975	76.9
Medium Cost	848,046	13.1	166,580	12.8
High Cost	602,985	9.3	133,350	10.3

Table 4.6 shows the percentage distribution of the population by relationship to the household head. The results show that heads of households make up 19.5 percent of households members. Own child and Spouse accounted for 49.3 and 13.9 percent of households members, respectively.

Table 4.6: Percentage Distribution of the Population by Relationship to the Household Head, Zambia, 2015.		
Relationship to the head of Household	Number of persons	Percentage share
Head	3,014,965	19.5
Spouse	2,146,728	13.9
Own Child	7,630,931	49.3
Step Child	148,235	1.0
Adopted	2,847	0.0
Grand Child	1,125,102	7.3
Brother/Sister	327,168	2.1
Cousin	66,006	0.4
Nephew/Niece	558,147	3.6
Brother/Sister in Law	197,887	1.3
Parent	65,170	0.4
Parent in Law	33,402	0.2
Other Relatives	112,360	0.7
Maid/Nanny/House-Servant	14,273	0.1
Non-Relative	30,685	0.2
All Zambia	15,473,905	100

Figure 4.3 shows the percentage distribution of the population by province, sex and Residence. The distribution of the male and female populations across rural and urban areas tends to be similar across provinces, with a larger female population in most provinces. Luapula Province had the highest percentage of females in both the rural (52.8 percent) and urban areas (54.3 percent) whilst Southern province had the lowest percentage of females (49.4 percent) in rural areas.

Figure 4.3: Percentage distribution of the population by Sex, and Residence, Zambia, 2015.



	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
	Central		Copperbelt		Eastern		Luapula		Lusaka		Muchinga		Northern		North western		Southern		Western	
Male	48.8	50.0	49.5	48.6	49.7	48.2	47.2	45.7	49.9	48.3	49.2	48.7	48.3	49.5	47.5	47.9	50.6	46.3	47.4	48.2
Female	51.2	50.0	50.5	51.4	50.3	51.8	52.8	54.3	50.1	51.7	50.8	51.3	51.7	50.5	52.5	52.1	49.4	53.7	52.6	51.8

4.4 Household distribution, size and headship

Table 4.7 shows the distribution of households by province and Residence. Of the 3,014, 965 households in Zambia, 57 percent were living in rural areas while 43 percent were in urban areas. Lusaka and Copperbelt provinces had the largest share of households, with 19.6 and 15 percent, respectively. North Western Province had the smallest share of households, at 5.4 percent.

Table 4.7: Distribution of Households by Province and Residence, Zambia, 2015.

Province	Number of House-holds	Percentage Share	Rural	Urban	Household Total
Total	**3,014,965**	**100**	**57.0**	**43.0**	**100**
Central	292,049	9.7	73.6	26.4	100
Copperbelt	450,843	15.0	18.2	81.8	100
Eastern	342,161	11.3	87.6	12.4	100
Luapula	207,612	6.9	80.8	19.2	100
Lusaka	592,073	19.6	14.2	85.8	100
Muchinga	174,832	5.8	75.6	24.4	100
Northern	253,779	8.4	81.2	18.8	100
North Western	164,141	5.4	72.7	27.3	100
Southern	338,259	11.2	70.0	30.0	100
Western	199,215	6.6	88.0	12.0	100

Table 4.8 shows the distribution of households by Residence and stratum. The results show that 51.2 percent of all households were Small Scale farmers, 33.1 percent were residing in Low Cost areas and 0.1 percent were engaged in Large Scale farming.

Table 4.8: Distribution of Household by Residence and Stratum, Zambia, 2015.

Residence/Stratum	Number of Households	Percentage Share
Total Zambia	**3,014,965**	**100**
Rural	**1,718,060**	**57.0**
Small Scale	1,542,587	51.2
Medium Scale	56,974	1.9
Large Scale	2,807	0.1
Non-Agriculture	115,692	3.8
Urban	**1,296,905**	**43.0**
Low Cost	996,975	33.1
Medium Cost	166,580	5.5
High Cost	133,350	4.4

Table 4.9 and Figure 4.4 shows the percentage distribution of household heads by age group. Results reveal an increase in the proportion of persons heading household as their age increases and only begin to progressively fall after the age of 39.

Table 4.9: Percentage Distribution of Household Heads by Age Group, Zambia, 2015.

Age of Household Head	Number of Household Head	Percentage Share
Total Zambia	**3,014,965**	**100**
15 - 19	8,619	0.3
20 - 24	153,090	5.0
25 - 29	366,907	12.2
30 - 34	448,214	14.9
35 - 39	471,589	15.6
40 - 44	398,955	13.2
45 - 49	298,167	9.9
50 - 54	232,021	7.7
55 - 59	200,660	6.7
60 - 64	136,039	4.5
65 +	300,704	10.0

Figure 4.4: Percentage Distribution of Household Heads by Age, Zambia, 2015.

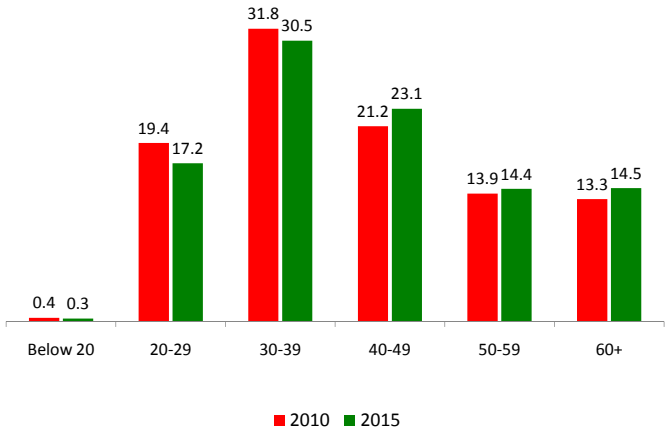


Table 4.10 shows the average household size by province, Residence and sex of head. The average household size in Zambia was 5.1 persons. Overall, the average household size tends to be larger in rural areas with an average of 5.2 persons compared to 5.0 persons in urban areas.

Analysis by province reveals that Copperbelt, Luapula and Western provinces had a slightly larger average household size in urban areas compared to rural areas. In Lusaka both urban and rural areas had equal average household size.

Male headed households tended to have larger average household size than female headed households. The average household size for male headed households was 5.4 persons compared to 4.3 persons for female headed households.

Table 4.10 Average Household Size by Residence and Province, Zambia, 2015.

Province	Average Household Size	Residence		Sex of Head		Number of Households
		Rural	Urban	Male	Female	
Total Zambia	**5.1**	**5.2**	**5.0**	**5.4**	**4.3**	**3,014,965**
Central	5.2	5.3	5.0	5.4	4.4	292,049
Copperbelt	5.2	4.9	5.3	5.4	4.8	450,843
Eastern	5.3	5.3	5.2	5.6	4.2	342,161
Luapula	5.4	5.3	5.9	5.8	4.4	207,612
Lusaka	4.7	4.7	4.7	4.8	4.1	592,073
Muchinga	5.1	5.2	5.0	5.4	3.9	174,832
Northern	5.1	5.1	5.2	5.4	4.2	253,779
North Western	5.1	5.1	5.1	5.5	4.1	164,141
Southern	5.5	5.8	4.7	5.8	4.5	338,259
Western	5.0	4.9	5.2	5.3	4.3	199,215

Table 4.11 shows the percentage distribution of female headed households by province and Residence. Results show that 23.2 percent of the households were headed by females. Western Province had the highest proportion of female headed households at 31.7 percent. Northern Province had the lowest percentage of female headed household 20.3 percent.

Analysis by Residence, Western Province had the highest percentage of female headed households both in rural and urban areas at 31.6 and 32.1 percent respectively. Lusaka Province had the lowest percentage of female headed households in rural areas while Muchinga Provinces had the lowest percentage of female headed households in urban areas at 18.9 percent.

Table 4.11: Percentage Distribution of Female Headed Households by Province and Residence, Zambia, Zambia, 2015.

Province	Total	Rural	Urban	Number
Total	**23.2**	**22.9**	**23.5**	**698,051**
Central	22.2	21.1	25.2	64,714
Copperbelt	22.4	20.7	22.8	100,975
Eastern	20.6	20.6	20.5	70,373
Luapula	24.3	23.5	27.6	50,369
Lusaka	21.9	18.9	22.4	129,685
Muchinga	20.7	21.3	18.9	36,239
Northern	20.3	20.1	21.1	51,450
North Western	30.5	30.2	31.4	50,041
Southern	24.0	22.4	27.6	81,069
Western	31.7	31.6	32.1	63,136

4.5. Marital status

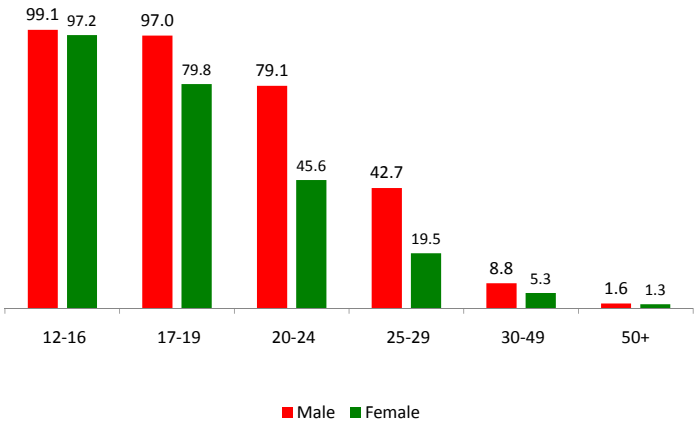
Table 4.12 shows the percentage distribution of persons aged 12 years or older by marital status. Results show that 45.1 percent of persons aged 12 years or older have never married while 45.1 percent are married. Less than 1 percent of persons aged 12 years or older were cohabiting. Analysis by sex shows that 50.6 percent of males had never married compared to 39.9 percent of their female counterparts. A higher percentage of males (45.8 percent) were married than females at 44.5 percent. Females were 8 times more likely to be widowed than males. Similarly, females were 3 times more likely to be divorced than males at 4.8 and 1.5 percent respectively.

The peak age-group for marriage was 30 – 49 years at 79.2 percent. Further, results indicate that females were getting married at younger ages than males, with 2.6 percent of females being married by the time they reach the age of 17 years compared to only 0.9 percent of males in that age group. Figure 4.5 attests to this result as it shows that males are more likely to be single than their female counterparts.

Table 4:12: Percentage Distribution of Persons Aged 12 Years or Older by Marital Status, Zambia, 2015.

Sex, Age Group	Never Married	Married	Separated	Divorced	Widowed	Co-habiting	Total	Persons aged 12 years or older
Total Zambia	**45.1**	**45.1**	**1.8**	**3.2**	**4.7**	**0.1**	**100**	**10,127,748**
Male	50.6	45.8	1.0	1.5	1.0	0.1	100	4,924,415
Female	39.9	44.5	2.5	4.8	8.2	0.2	100	5,203,333
Age Group								
12 - 16	98.1	1.8	0.1	0.0	0.0	0.0	100	2,170,673
17 - 19	88.1	10.9	0.6	0.3	0.0	0.1	100	1,075,348
20 - 24	61.8	34.2	1.5	1.8	0.4	0.2	100	1,483,138
25 - 29	30.1	61.5	2.8	4.6	0.7	0.4	100	1,163,275
30 - 49	7.0	79.2	2.8	6.0	4.7	0.2	100	2,942,597
50+	1.4	66.5	2.6	4.7	24.8	0.0	100	1,292,718
MALE								
12 - 16	99.1	0.9	0.0	0.0	0.0	0.0	100	1,069,858
17 - 19	97.0	3.0	0.0	0.0	0.0	0.0	100	515,168
20 - 24	79.1	19.7	0.3	0.4	0.4	0.1	100	716,474
25 - 29	42.7	52.9	1.5	2.1	0.5	0.3	100	532,549
30 - 49	8.8	85.6	1.8	2.8	0.9	0.1	100	1,471,621
50+	1.6	88.5	2.0	2.8	5.0	0.0	100	618,746
FEMALES								
12 - 16	97.2	2.6	0.1	0.0	0.0	0.0	100	1,100,816
17 - 19	79.8	18.1	1.2	0.6	0.1	0.1	100	560,180
20 - 24	45.6	47.8	2.7	3.2	0.5	0.3	100	766,663
25 - 29	19.5	68.8	3.8	6.6	0.9	0.4	100	630,726
30 - 49	5.3	72.9	3.9	9.2	8.5	0.2	100	1,470,976
50+	1.3	46.3	3.0	6.4	43.0	0.0	100	673,972

Figure 4.5: Proportion of Never Married Persons by Age Group and Sex, Zambia, 2015.



4.6. Orphanhood

The prevalence and level of orphanhood are a direct consequence of the prevailing mortality pattern among adults in a population.

In the Living Condition Monitoring Survey, an orphan is defined as any person aged 20 years or below who had lost at least one parent. The 20 years cut off point was used because after this age, a person is normally considered old enough to fend for him/herself.

Orphans are usually classified into three categories: "Paternal orphans"- those who have lost a father; "Maternal orphans"- those who have lost a mother; and "Double orphans"- those who have lost both parents. Whatever the category, orphanhood negatively affect a child's development by increasing the risk of missing out on education opportunities, living in a home which is food insecure, suffering from anxiety or depression, as well as other factors.

Table 4.13 shows percentage distribution of orphanhood by type, Residence, age group, stratum and province. At national level, the incidence of orphanhood was 13.6 percent. The proportion of paternal orphans was more than twice that of maternal orphans. The proportion of paternal orphans was 59.4 percent while that of maternal orphans was 17.7 percent.

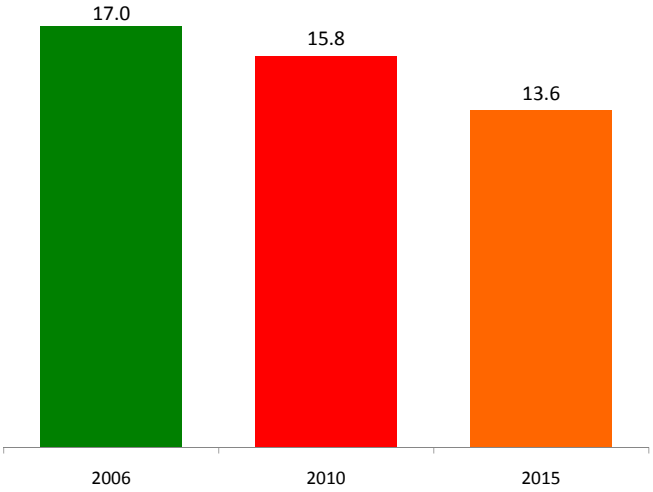
Analysis by Residence shows that there was a higher proportion of orphans in urban areas (16.7 percent) than in rural areas (11.6 percent). Further analysis by province shows that Copperbelt Province had the highest proportion of orphans at 16.7 percent while Northern Province had the lowest at 9.5 percent.

Table 4.13: Percentage Distribution of Orphanhood by Type, Residence, Age Group, Stratum and Province, Zambia, 2015.

Age Group/ Stratum/Province	Number of Orphans	Percentage of Population or Orphans	Mother Only Dead	Father Only Dead	Both Parents Dead	Total	Number of Persons Aged 0-20
Total Zambia	**1,217,644**	**13.6**	**17.7**	**59.4**	**22.9**	**100**	**8,962,219**
Rural	635,334	11.6	18.7	58.6	22.7	100	5,478,212
Urban	582,310	16.7	16.7	60.2	23.1	100	3,484,007
Age group							
0 - 5	92,553	4.0	22.3	63.8	13.9	100	2,301,350
6 - 9	203,950	9.5	19.6	64.0	16.4	100	2,137,625
10 - 14	334,228	15.2	17.6	59.7	22.7	100	2,201,329
15 - 18	384,746	23.5	15.8	58.0	26.1	100	1,638,093
19 - 20	202,167	29.6	17.4	54.8	27.8	100	683,821
Stratum							
Small Scale	588,214	11.9	18.5	58.6	22.8	100	4,950,626
Medium Scale	16,550	6.6	25.8	50.2	24.0	100	250,493
Large Scale	1,995	15.7	18.9	66.7	14.4	100	12,703
Non-Agriculture	28,574	10.8	17.0	62.7	20.2	100	264,391
Low Cost	449,822	16.3	14.8	62.1	23.1	100	2,765,739
Medium Cost	83,898	19.3	23.7	52.3	24.0	100	433,792
High Cost	48,590	17.1	22.0	56.3	21.8	100	284,476
Province							
Central	130,200	14.7	15.9	65.1	19.0	100	886,711
Copper belt	210,065	16.7	18.9	58.8	22.3	100	,259,299
Eastern	124,238	11.4	20.8	55.6	23.7	100	,088,412
Luapula	111,065	15.8	19.2	56.3	24.5	100	701,925
Lusaka	221,255	15.1	15.2	58.4	26.4	100	1,468,392
Muchinga	75,244	13.8	17.2	55.2	27.6	100	546,136
Northern	75,984	9.5	13.1	63.9	23.0	100	796,691
North Western	68,479	13.5	16.9	63.2	19.8	100	506,591
Southern	120,829	10.8	20.8	61.6	17.6	100	,121,126
Western	80,285	13.7	18.5	57.4	24.1	100	586,935

Figure 4.6 shows the trend in orphanhood in 2006, 2010 and 2015. The proportion of orphans has been decreasing since 2006, representing a reduction of 3.4 percentage points.

Figure 4.6: Proportion of orphans, Zambia, 2006, 2010 and 2015.



4.7. Deaths in the households

The 2015 LCMS collected information on deaths of household members during the period 12-months prior to the survey. For any deaths reported to have occurred during the reference period, information pertaining to the sex, age and cause of death was collected.

Table 4.14 presents information on the total population and reported household deaths during the period 12 months prior to the survey, as well as estimated crude death rates (CDR) by province and rural/urban residence. A total of 243, 917 deaths were reported by households (162, 714 deaths in rural areas and 81, 202 deaths in urban areas). The estimated CDR was 15.8 deaths per 1000 population overall; 18.1 deaths per 1000 population in rural areas and 12.5 deaths per 1000 in urban areas. At province level, the CDR was highest in Luapula Province at 27 deaths per 1000 population and lowest in Central province at 8.9 deaths per 1000 population, respectively.

Table 4.14: Total Population, Deaths and Estimated Crude Death Rates (CDR) by Province and Residence, Zambia, 2015.

Province/Residence	Population	Deaths	Crude death rate (CDR) /1000 Population
Central	1,515,086	13,429	8.9
Copperbelt	2,362,207	37,758	16.0
Eastern	1,813,445	31,714	17.5
Luapula	1,127,453	31,119	27.6
Lusaka	2,777,439	32,849	11.8
Muchinga	895,058	14,708	16.4
Northern	1,304,435	20,681	15.9
North Western	833,818	15,935	19.1
Southern	1,853,464	21,787	11.8
Western	991,500	23,937	24.1
Zambia	15,473,905	243,917	15.8
Rural	9,001,646	162,714	18.1
Urban	6,472,259	81,202	12.5

Figure 4.7 and Table 4.15 present information on deaths by age group, and age specific crude death rates (ASCDR) by rural/urban residence respectively. The ASCDRs show that mortality is high among the population below the age of five in both rural and urban areas (ASCDR of 34.1 deaths per 1000 population in rural areas and 20.2 deaths per 1000 population in urban areas among the population aged 0-4 respectively). However mortality declines significantly among those aged 5-14, before steadily rising thereafter. Results show higher ASCDRs at all age groups in rural areas compared to urban areas, except for age group 25-29 where the ASCDR in urban areas of 20.2 deaths per 1000 population is higher than the 15.1 deaths per 1000 population in rural areas. As expected, death rates are highest among the elderly (those aged 65 years or older) in both rural and urban areas, but more so in rural areas compared to urban areas (101 deaths per thousand population over 65 years in rural areas compared to 72 in urban areas respectively).

Figure 4.7: Distribution of deaths by age groups, Zambia, 2010 and 2015.

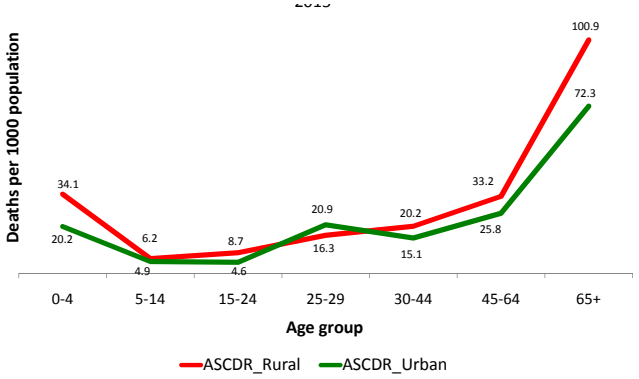


Table 4.15: Total Population and Deaths by Residence and Age Group, Zambia, 2015.

Age group	Total		Rural		Urban	
	Population	Deaths	Population	Deaths	Population	Deaths
0-4	1,536,048	44,807	992,345	33,845	543,703	10,962
5-14	5,104,256	29,271	3,190,648	19,851	1,913,608	9,419
15-24	3,434,881	23,498	1,864,946	16,271	1,569,935	7,227
25-29	1,163,404	21,618	588,157	9,600	575,248	12,018
30-44	2,476,143	43,980	1,279,138	25,872	1,197,006	18,108
45-64	1,314,994	39,676	773,676	25,709	541,318	13,967
65+	444,177	41,067	312,736	31,567	131,441	9,501
Total Zambia	15,473,905	243,916	9,001,646	162,714	6,472,259	81,202

Table 4.16 shows the percentage distribution of reported causes of death by province. Malaria was the most common cause of death in Zambia at 23.0 percent, however it was less prevalent in Southern and Lusaka provinces, at 11.1 and 11.7 percent respectively. This compares to high proportions of 27.2 percent and 25.9 percent in North-Western and Copperbelt provinces.

Table 4.16: Percentage Distribution of Reported Causes of Death by Province, Zambia, 2015.

Causes of Death	Total	Central	Copperbelt	Eastern	Luapula	Lusaka	Muchinga	Northern	North-West-ern	Southern	Western
Fever/Malaria	23.0	14.3	25.9	19.4	25.7	11.7	25.7	20.8	27.2	11.1	18.2
Cerebral Malaria	3.2	4.1	0.9	4.1	3.6	8.5	6.8	1.0	1.8	3.7	1.5
Cough/Cold/Chest Infection	8.2	14.3	9.8	7.1	5.7	6.4	6.8	3.0	6.1	4.9	8.3
Tuberculosis	5.6	14.3	7.1	5.1	2.9	11.7	5.4	1.0	7.0	6.2	8.3
Asthma	1.8	0.0	0.0	5.1	2.1	1.1	1.4	4.0	3.5	0.0	3.8
Bronchitis	1.5	2.0	1.8	2.0	0.0	2.1	0.0	1.0	0.9	2.5	1.5
Pneumonia/Chest Pain	2.9	2.0	1.8	0.0	2.1	8.5	2.7	0.0	3.5	3.7	1.5
Diarrhoea Without Blood	1.4	0.0	.9	5.1	2.1	0.0	0.0	3.0	1.8	0.0	1.5
Diarrhoea With Blood	1.9	0.0	1.8	0.0	3.6	2.1	2.7	2.0	0.0	2.5	0.8
Diarrhoea And Vomiting	1.8	2.0	0.9	2.0	2.1	3.2	4.1	2.0	1.8	0.0	5.3
Vomiting	0.9	0.0	0.0	1.0	2.1	0.0	1.4	1.0	0.0	2.5	2.3
Abdominal Pains	3.5	2.0	3.6	1.0	5.7	0.0	2.7	4.0	3.5	4.9	3.0
Constipation/Stomach Upset	1.7	0.0	1.8	2.0	2.1	0.0	1.4	1.0	0.9	1.2	3.8
Liver Infection/Side Pain	2.2	0.0	0.9	4.1	0.7	2.1	1.4	2.0	0.9	2.5	0.8
Lack Of Blood/Anaemia	3.1	6.1	8.0	4.1	2.9	7.4	2.7	1.0	0.9	2.5	2.3
Boils	0.4	2.0	0.0	0.0	0.0	0.0	1.4	1.0	0.0	0.0	0.0
Skin Rash/Skin Infection	0.6	0.0	0.0	1.0	2.1	0.0	0.0	0.0	0.0	1.2	0.0
Piles/Haemorrhoids	0.2	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.2	0.8
Shingles/Herpes Zoster	0.1	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Paralysis Of Any Kind	1.3	2.0	0.0	1.0	4.3	1.1	0.0	1.0	0.9	0.0	1.5
Suicide	1.4	0.0	0.9	0.0	0.0	2.1	4.1	1.0	0.9	2.5	0.8
Murdered	2.1	2.0	0.9	1.0	.7	1.1	0.0	2.0	4.4	1.2	2.3
Accident	4.8	6.1	3.6	5.1	3.6	9.6	4.1	6.9	5.3	8.6	3.0
Stroke	2.1	0.0	6.3	1.0	2.9	0.0	1.4	4.0	5.3	3.7	3.8
Hypertension	2.0	0.0	4.5	2.0	.7	2.1	1.4	3.0	1.8	4.9	0.8
Diabetes/Sugar Disease	2.0	0.0	4.5	4.1	1.4	0.0	0.0	5.0	0.9	0.0	3.0
Headache	1.5	0.0	0.9	2.0	2.9	2.1	2.7	4.0	2.6	3.7	0.8
Measles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0
Jaundice/Yellowness	0.3	0.0	0.0	1.0	0.0	0.0	1.4	0.0	0.0	0.0	0.8
Cancer Of Any Kind	2.0	4.1	2.7	3.1	2.9	4.3	1.4	4.0	5.3	2.5	1.5
Meningitis	0.7	4.1	.9	1.0	0.0	2.1	1.4	1.0	0.0	1.2	1.5
Other	5.9	12.2	1.8	6.1	5.0	6.4	5.4	6.9	5.3	8.6	6.8
Don't Know	9.8	6.1	8.0	9.2	7.9	4.3	9.5	11.9	7.9	11.1	9.8
340.000	0.3	0.0	0.0	0.0	.7	0.0	0.0	2.0	0.0	0.0	0.0
Total	100	100	100	100	100	100	100	100	100	100	100

CHAPTER 5
MIGRATION

5.1 Introduction

Migration is one of the three components of population change, complementing fertility (births) and mortality (deaths). It is the geographic movement of people across a specified boundary of the country for the purpose of establishing a new residence. Migration can either be internal or international.

Internal Migration refers to changes of residence within a nation and is defined in terms of residential movements across boundaries that are often taken as the boundary or minor divisions of the province or district of a country. Movements that do not result in crossing boundaries are termed mobility. International Migration refers to changes of residence involving crossing a national boundary. People migrate primarily for economic reasons although other factors such as social unrest in a particular country may lead to moving out of that country or Residence. A migrant is a person who changes his/her usual place of residence by crossing an administrative boundary and residing in a new area for a period of not less than six months or intends to stay in the new area for a period not less than six months. Migration flows refers to a group of migrants having a common origin and destination in a given migration period.

Data on migration was obtained by asking the household members to state; the place of residence (locality) 12 months prior to the survey, district of residence 12 months prior to the survey, place of residence (rural/urban) 12 months prior to the survey and the reason for migration. The concept of residence referred above means the actual place at which an individual was interviewed and the place one was 12 months before enumeration.

This chapter presents findings on the migration of the population in Zambia. For the purposes of the LCMS, only internal migration has been considered and discussed. The analysis of migration in this report includes proportions of persons who moved by age and reason for migrating. The analysis also takes into account the direction of flow of movement, i.e. rural-rural, rural-urban, urban-rural or urban-urban migration. During the 2015 LCMS, other than the individual persons who migrated, households which moved from one clearly defined geographical area to another were considered to have migrated. The geographical units used in this report are rural, urban, district, and province.

The terms migrants or persons who moved and non-migrants or persons who did not move have been used interchangeably.

For easy presentation of survey results, the findings have been divided into two major sections: Individual Migration and Household Migration. Each of these two sections has got three parts. The first part presents levels of migration, while the second part presents the direction or flow of migration and the third part looks at the reasons for migrating. Similar analysis has been applied to both individual and household migration except for the household section that has a part on the age characteristic of the head of the household.

5.2. Individual Migration

5.2.1 Level of Migration

The levels of migration have been discussed in relation to the residence of persons (Rural or Urban), Province, level of involvement in agriculture (Small, Medium, or Large Scale or Non-Agriculture), type of an urban area (Low, Medium, or High Cost), sex, and age of migrants. In this regard individual migration is defined as the movement of an individual member of a household from one clearly defined geographical area to another regardless of whether the head of the household moved with that individual or not.

Table 5.1 shows the percentage distribution of persons by type of migration, residence, stratum and province. At national level, of the 15,473,905 estimated population 1.5 percent migrated

Table 5.1: Percentage Distribution of Persons by Type of Migration, Residence, Stratum and Province, Zambia, 2015.

Residence/Stratum/ Province	Non-migration			Internal migration		International migration	Not applicable	Total
	Same dwelling	Different dwelling, same locality/ same district	Different locality/ same district	Different district same province	Different province	Different country		
Total	**14040**	**53**	**24**	**101**	**130**	**13**	**418**	**15,474**
Percent	90.7	3.4	1.6	0.7	0.8	0.1	2.7	100
Residence								
Rural	92.5	2.2	1.2	0.6	0.5	0.1	3.0	100
Urban	88.2	5.2	2.1	0.8	1.3	0.1	2.3	100
Stratum								
Small Scale	92.5	2.2	1.2	0.6	0.5	0.0	2.9	100
Medium Scale	88.2	5.2	2.1	0.8	1.3	0.1	1.7	100
Large Scale	92.5	2.2	1.2	0.6	0.5	0.2	8.0	100
Non-Agriculture	88.2	5.2	2.1	0.8	1.3	0.2	4.0	100
Low Cost	87.9	5.8	1.8	0.7	1.3	0.0	2.5	100
Medium Cost	88.3	3.9	3.1	0.9	1.5	0.1	2.1	100
High Cost	90.8	2.1	2.5	0.7	1.5	0.8	1.6	100
Province								
Central	92.3	2.7	0.6	0.6	1.2	0.2	2.5	100
Copperbelt	91.3	3.3	1.2	0.7	1.1	0.0	2.3	100
Eastern	91.9	2.2	1.4	0.8	0.5	0.0	3.2	100
Luapula	90.6	3.3	1.8	0.6	0.6	0.0	3.1	100
Lusaka	86.7	6.6	2.4	0.5	1.2	0.2	2.3	100
Muchinga	91.1	3.3	1.4	0.8	0.7	0.0	2.7	100
Northern	90.0	2.9	2.5	0.6	1.1	0.0	2.8	100
North Western	92.4	2.2	1.3	1.0	0.6	0.0	2.5	100
Southern	91.5	2.9	1.5	0.6	0.5	0.0	3.1	100
Western	94.1	1.0	1.1	0.5	0.2	0.1	3.0	100

Table 5.2 shows the percentage distribution of Migrants 12 months prior to the survey by residence, stratum and province. At national level 1.5 percent of the population migrated.

There was a high proportion of migrants in urban areas at 2.1 percent compared to rural areas at 1.1 percent. In rural areas, households in the Small Scale Stratum were more likely to migrate than households in the other rural strata while in urban areas, households from Low Cost areas were more likely to migrate than other households in the urban strata.

Table 5.2: Percentage Distribution Of Migrants 12 Months Prior To The Survey By Residence, Stratum And Province, Zambia, 2015.

Residence/Stratum/Province	Migrants		Total Population
	Total	Percent	
Total Zambia	**229,000**	**1.5**	**15,043,000**
Residence			
Rural	95,000	1.1	8,730,000
Urban	134,000	2.1	6,313,000
Rural Stratum			
Small Scale	72,000	50.6	7,861,000
Medium Scale	52,000	36.6	444,000
Large Scale	231	0.2	19,000
Non-Agriculture	18,000	12.7	453,000
Urban Stratum			
Low Cost	101,000	74.8	4,896,000
Medium Cost	20,000	14.8	829,000
High Cost	14,000	10.4	589,000
Province			
Central	27,000	11.8	1,475,000
Copperbelt	44,000	19.2	2,305,000
Eastern	23,000	10.0	1,755,000
Luapula	13,000	5.7	1,092,000
Lusaka	48,000	21.0	2,708,000
Muchinga	13,000	5.7	871,000
Northern	22,000	9.6	1,267,000
North Western	13,000	5.7	813,000
Southern	19,000	8.3	1,796,000
Western	7,000	3.1	961,000

Figure 5.1 shows the proportional distribution of migrants 12 months prior to the survey, by age-group and sex, Zambia 2015. The peak age-group for migration in Zambia was 20-24 years (2.3 percent). Analysed by sex, the peak age-group for migration among males was 20-24 years (2.6 percent) while that of females was 25-29 years. From the age-group of 20-24 up to 30-39 years, the proportions of male migrants tend to be higher than the national average.

Figure 5.1: Percentage Distribution of Migrants 12 Months Prior to the Survey by Age Group and Sex, Zambia, 2015.

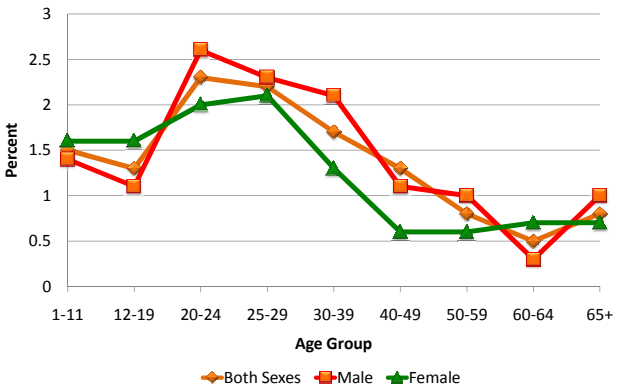
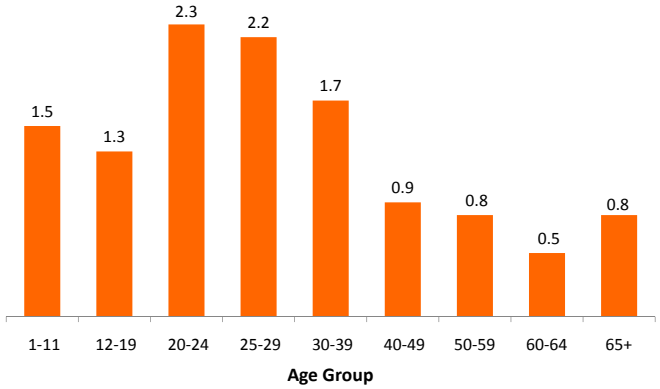


Figure 5.2 shows the percentage distribution of migrants during the 12 months prior to the survey by sex and age group. At national level, results show that the proportion of male and female migrants was the same at 1.5 percent. The results reveal that the highest proportion of migrants were in the age group 20-24 at 2.3 percent. Further, results show that the proportion of migrants for males was higher than that of females.

Figure 5.2: Percent distribution of migrants during the last 12 months prior to the survey by broad age groups, Zambia, 2015.



5.2.2 Direction of Individual Migration

Knowing the direction or flow of migration helps planners and policy makers to come up with good planning strategies and policies. By looking at migration flow, we are able to understand the pull and push factors affecting migration as well as assessing the available resources in a receiving residence and how sufficient they are to support the in-migrants.

Table 5.5 shows the percentage distribution of persons who migrated by province and the direction of migration flow i.e. where they moved from and where they went. Results indicate that there was a higher proportion of persons who migrated from one urban area to another at 37 percent, followed by those who had migrated from an urban area to a rural area at 21.6 percent. The lowest proportion of the population that migrated moved from rural to urban at 20.7 percent.

There were variations in the direction of migration of persons at provincial level. Luapula province had the highest percentage of rural to rural migrants (55.2 percent), followed by Muchinga (41.6 percent), whereas Western and Lusaka provinces had the lowest percentages, 4.8 and 6.9 percent respectively. However, the highest percentages of urban to urban migrants were recorded in Copperbelt and Lusaka provinces at 59.3 and 48.6 percent respectively while Eastern Province had the lowest percentage of urban to urban migrants at 13.6 percent. Northern and Eastern provinces had the highest percentage of rural to urban migrants at 48.6 and 39.9 percent respectively while Lusaka and Copperbelt provinces had the least percentages at 6.2 and 6.9 percent respectively. Lusaka Province had the highest percentage of urban to rural migrants at 38.3 percent whereas Eastern Province had the lowest at 10.2 percent.

Table 5.5: Percentage Distribution of Individual Migrants by Province and Direction of Migration Flow, Zambia, 2015.

Direction	2015										
	Central	Copper-belt	Eastern	Luapula	Lusaka	Much-inga	Northern	N/West-ern	South-ern	Western	Total
Number (000s)	27	44	23	13	48	13	22	13	19	7	229
Rural to rural	30.0	10.4	36.3	55.2	6.9	41.6	18.2	24.4	16.5	4.8	20.8
Rural to urban	24.1	6.9	39.9	7.3	6.2	18.9	48.6	20.5	34.6	34.0	20.7
Urban to rural	17.9	23.4	10.2	10.5	38.3	11.5	16.5	20.2	16.3	19.8	21.6
Urban to urban	28.0	59.3	13.6	27.1	48.6	28.0	16.7	34.9	32.6	41.0	37.0
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Figure 5.3 shows the trends in the direction of movement between the two surveys 2010 and 2015. There was a higher proportion of rural to rural migrants at 24.1 percent in 2010 compared to 20.8 percent in 2015. There was a reduction in the proportion of urban to rural migrants from 23.9 percent in 2010 to 21.6 in 2015.

5.2.3. Reasons for Migrating

People migrate for different reasons and these may vary from place to place. Members of the household who had migrated 12 months prior to the survey were asked to state the main reason why they migrated.

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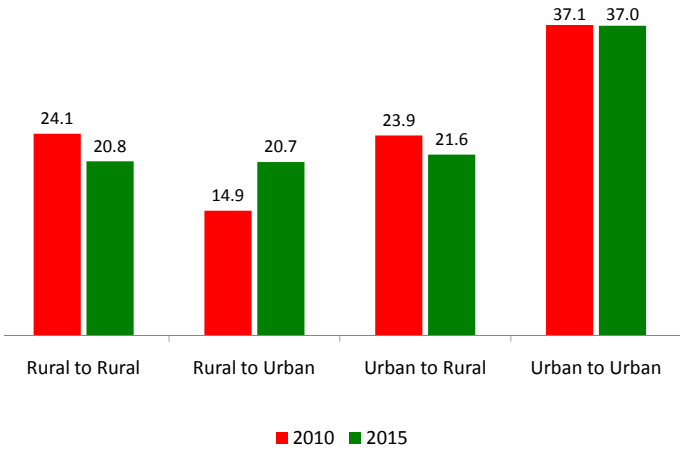
Table 5.6 shows the percentage distribution of individual migrants by age group and reason for migrating. The main reason cited for migration was transfer of head of household at 19.9 percent, followed by resettlement at 17.7 percent while 'refugee/asylum seeker' were the lowest at 0.1 percent.

Figure 5.3: Percentage Distribution of Migrants by Direction of Migration Flow, Zambia, 2010 and 2015.



Analysis of reasons for migrating by age group indicates that those in the age group 1-11 were more affected on account of the head of household being transferred at 26.1 percent while the age group 65+ year or older migrated due to desire to resettle at 26 percent. The highest percentage of those that migrated to seek work were recorded in the age group 20-24 at 15.0 percent, while 10.2 percent was the highest recorded for those that migrated to start work/ business. Youths are more likely to migrate for purposes of seeking or starting work or businesses.

Table 5.6: Percentage Distribution of Individual Migrants by Age Group and Reason for Migration, Zambia, 2015.

Reason for migrating	Age group (years)									
	1 -11	12 -19	20 - 24	25 - 29	30 – 39	40 - 49	50 - 59	60 - 64	65+	Total
Transfer of head of household	26.1	24.9	11.8	15.2	13.6	18.4	12.1	1.2	3.2	19.9
Decided to resettle	14.4	13.9	15.4	20.3	23.2	29.8	33.1	54.8	26.0	17.7
Acquired own/ different accom-modation	7.6	6.3	6.2	6.3	11.8	7.7	4.9	5.7	6.3	7.5
To seek work/ business	0.0	0.7	15.0	12.4	10.0	4.8	3.8	0.0	0.0	5.2
School	4.9	11.6	8.1	1.2	0.4	0.0	0.0	0.0	0.0	5.2
Death of parent/ guardian	4.9	7.2	4.6	2.1	1.1	0.0	0.0	5.0	0.0	4.1
Previous house-hold could not afford to keep him/her	5.6	6.2	3.4	3.6	1.6	0.5	6.9	16.5	1.8	4.5
To start work/ business	0.1	1.3	5.9	10.1	10.2	7.6	9.7	0.0	0.0	5.2
New household	4.9	3.3	3.0	6.3	1.9	0.7	1.3	7.4	2.4	3.8
Got married	0.4	5.2	7.6	3.9	3.7	0.1	0.0	8.9	0.0	3.2
Found new agri-cultural land	1.9	1.8	3.0	3.4	3.8	0.5	8.2	0.6	5.8	2.5
Back from school/ studies	0.0	2.1	3.2	1.6	1.0	0.1	0.0	0.0	0.0	1.2
Retrenchment	0.0	0.0	0.6	1.7	0.6	3.9	0.0	0.0	0.0	0.5
Retirement	0.1	0.2	0.0	0.0	0.3	0.0	1.6	0.0	3.5	0.2
Refugee/asylum seeker	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1
Other	28.7	15.2	12.3	11.9	16.9	25.7	18.4	0.0	51.0	20.0
Total	100	100	100	100	100	100	100	100	100	100

Table 5.7 shows the reasons for individual migration by direction of migration flow. The main reason for those that moved from one rural area to another, a rural area to an urban area, an urban area to a rural area and one urban area to another was the transfer of the head of the household at 26.7 percent, 32.5 percent,29.8 percent and 27.4 percent respectively. Resettlement was the second most cited reason for individual migration.

Table 5.7: Reasons for Individual Migration by Direction of Migration Flow, Zambia, 2015.

Reason for Migrating	Direction of Migration				Total
	Rural to Rural	Rural to Urban	Urban to Rural	Urban to Urban	
Transfer of head of household	26.7	32.5	29.8	27.4	28.3
Decided to resettle	23.6	15.2	19.7	22.6	21.3
Acquired own/different accommodation	4.4	0.3	1.5	16.5	8.1
To seek work/ business	2.6	4.0	10.3	5.5	5.4
School	6.4	6.7	7.2	3.0	5.2
Death of parent/guardian	7.0	7.3	2.8	3.6	4.9
Previous household could not afford to keep him/her	4.3	5.4	3.5	4.1	4.5
To start work/ business	1.9	6.8	4.4	4.5	4.2
New household	5.3	1.3	6.7	2.5	3.8
Got married	5.0	2.8	3.6	2.0	3.3
Found new agricultural land	5.8	7.8	0.5	0.0	2.8
Back from school/studies	0.2	1.6	1.5	1.3	1.2
Sick	1.6	1.2	0.3	0.4	0.8
Retrenchment	0.1	1.5	0.5	0.3	0.5
Retirement	0.1	0.3	0.2	0.1	0.2
Refugee/asylum seeker	0.1	0.7	0.0	0.0	0.1
Other	5.0	4.7	7.5	5.2	5.4
Total	100	100	100	100	100

5.3 Household Migration

Household migration is highly influenced by the movement of the head of the household to a different residence. In order to establish the migration status of a household in this survey it was assumed that the migration of the head of the household meant that the whole household migrated.

5.3.1. Household Migration Levels

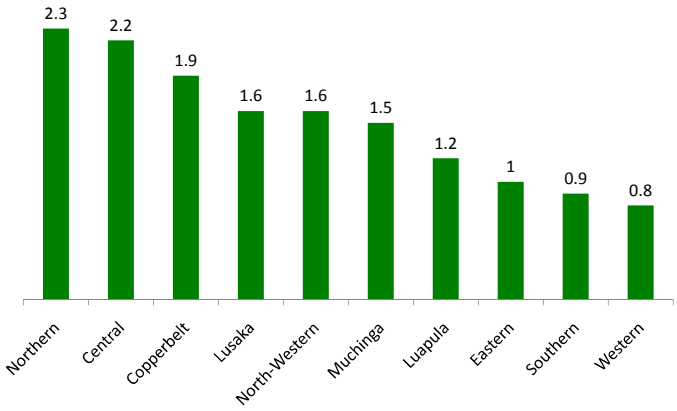
Table 5.8 shows migrant and non-migrant households 12 months prior to the survey by residence, stratum, and province. Overall 1.5 percent of households migrated one year prior to the survey. Migration was more prominent in urban areas at 2.0 percent compared to rural areas at 1.1 percent.

Table 5.8: Migrant and Non Migrant Households 12 Months prior to the Survey by Residence, Stratum, and Province, Zambia, 2015.

Residence, Stratum and Province	Migration Status					
	Migrant Households		Non-migrant Households		Total	
	Numbers	Per cent	Numbers	Per cent	Numbers	Per cent
Total Zambia	**45956**	**1.5**	**2,968,376**	**98.5**	**3,014,332**	**100**
Residence						
Rural	19,687	1.1	1,697,920	98.9	1,717,607	100
Urban	26,269	20.0	1,270,456	980.0	1,296,725	100
Stratum						
Small Scale	14,159	.9	1,528,105	99.1	1,542,264	100
Medium Scale	495	.9	56,479	99.1	56,974	100
Large Scale	-	00.0	2,677	100	2,677	100
Non-Agriculture	5,033	40.4	110,659	95.6	115,692	100
Low Cost	18,260	1.8	978,536	98.2	996,795	100
Medium Cost	4,321	2.6	162,260	970.4	166,580	100
High Cost	3,689	2.8	129,661	97.2	133,350	100
Province						
Central	6,425	2.2	285,624	97.8	292,049	100
Copperbelt	8,628	1.9	442,044	98.1	450,672	100
Eastern	3,461	10.0	338,700	990.0	342,161	100
Luapula	2,579	1.2	204,853	98.8	207,432	100
Lusaka	9,217	1.6	582,705	980.4	591,922	100
Muchinga	2,666	1.5	172,166	98.5	174,832	100
Northern	5,713	2.3	248,066	97.7	253,779	100
North Western	2,629	1.6	161,512	980.4	164,141	100
Southern	3,036	.9	335,094	99.1	338,129	100
Western	1602	.8	197,613	99.2	199,215	100

Figure 5.4 shows the proportion of households that migrated 12 months prior to the Survey by province. The results show that Northern and Central provinces had the highest percentage of households that migrated at 2.3 percent and 2.2 percent respectively, whereas Southern and Western provinces has the least percentages at 0.9 percent and 0.8 percent respectively.

Figure 5.4: Proportion of Households that Migrated 12 months prior to the Survey by Province, Zambia, 2015.



5.3.2. Direction of Household Migration

Table 5.9 shows results on the direction of movement of the households that changed residence 12 months prior to the survey. There was a higher proportion of households had migrated from one urban area to another at 34.4 percent, followed by households who migrated from an urban area to a rural area at 22.2 percent and rural to rural area at 22 percent while the proportion of rural to urban migrant households was the least at 21.4 percent.

Eastern Province with 46.1 percent had the highest proportion of households that moved from one rural area to another while Western Province with 5.4 percent had the lowest proportion. The proportion of rural to urban migrating households was highest in Northern Province with 43.3 percent, whereas Luapula Province recorded the lowest with 7.2 percent.

Lusaka Province had the highest proportion of households migrating from urban to rural areas at 46.4 percent while Copperbelt Province was the highest in terms of households moving from one urban area to another at 58.3 percent.

Table 5.9: Percentage Distribution of Migrant Households by Province and Direction of Migration flow, Zambia, 2015.

Direction 2015	Central	Copper-belt	Eastern	Luapula	Lusaka	Much-inga	Northern	N/West-ern	Southern	Western	Total
Number (000s)	7	8	3	3	8	2	5	2	3	1	44
Rural to rural	31.1	8.8	46.1	43.6	7.0	36.2	26.0	34.0	12.3	5.4	22
Rural to urban	25.3	9.3	29.8	7.2	11.2	12.7	43.3	28.6	35.0	27.7	21.4
Urban to rural	14.2	23.6	8.7	14.7	46.4	14.0	15.4	6.3	26.3	12.4	22.2
Urban to urban	29.4	58.3	15.4	34.5	35.4	37.1	15.3	31.1	26.4	54.5	34.4
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 5.10 shows the percentage distribution of migrant households 12 months prior to the survey by age of the Head. The highest proportion of household that migrated were headed by persons aged 30-39 years at 0.5 percent, followed by the age group 25-29 years at 0.4 percent.

Table 5.10: Proportion of Migrant Households 12 Months prior to the Survey by Age of the Head of Household, Zambia, 2015.

Age group of head of household (years)	2015	
	Number	Percent of all households
Total	45,956	1.5
1 -11	-	0.0
12 -19	-	0.0
20 - 24	4,610	0.2
25 - 29	11,687	0.4
30 - 39	15,294	0.5
40 - 49	8,003	0.3
50 - 59	3,555	0.1
60 - 64	379	0.0
65+	2,429	0.1

CHAPTER 6
EDUCATION

6.1 Introduction

This chapter presents statistical information on educational characteristics of the population based on the data obtained from the 2015 Living Conditions Monitoring Survey (LCMS). Education is one of the fundamental factors that enhance the well-being and quality of life for persons and for the entire society. Education, therefore, has profound effect on the population's welfare in terms of health, employment earnings, poverty levels and nutrition. Data on education were collected based on the existing formal education system in Zambia. The survey collected data from each household member on the following:

1. Whether he/she was currently attending school
   - The grade being attended
   - The type of school currently being attended
2. Whether one has ever attended school or not;
   - Highest grade attained
   - Main reason for leaving school or never having attended school

The following are the key education indicators that are used to assess and evaluate the performance of the education system in Zambia:

School attendance rate- the percentage of the population by age group attending school (grades 1-12) at the time of the survey.

- *School attendance rate (SAR).*
- *Gross attendance rate (GAR).*
- *Net attendance rate (NAR).*

The estimation of the above stated rates follows Zambia's levels of formal education system which can be outlined as follows:

- Pre-primary/nursery level corresponds to persons of ages 5-6 years
- Lower primary grades 1-4 correspond to persons of ages 7-10 years
- Upper primary grades 5-7 correspond to persons of ages 11-13 years
- Primary school grades 1-7 correspond to persons of ages 7- 13 years
- Junior secondary grades 8 and 9 correspond to persons of ages 14-15 years
- Senior secondary grades 10-12 corresponds to persons of ages 16-18 years
- Tertiary education level corresponds to persons of ages 19 or older.

6.2. School attendance rate

Table 6.1 shows the school attendance rates by age group, Residence, stratum and sex. The school attendance rate for persons in Pre-primary school age range was 29.8 percent, Primary school at 83.1 percent, Junior Secondary at 85.7 percent and Senior Secondary at 65.3 percent. Overall, school attendance rate for persons in Secondary school age was 75.7 percent. School attendance rate by persons whose age correspond to Tertiary education level was 29.4 percent.

Analysis of school attendance rates for schools in rural areas shows that the Pre-primary was 18.2 percent, Primary was 79.1 percent, Junior Secondary was 83.4 percent and Senior Secondary was 59.1 percent. School attendance rates by persons in secondary school and Tertiary education age range were at 72.7 percent and 25.4 percent, respectively.

Analysis of urban school attendance rates for schools in rural areas shows that the Pre-primary school attendance rate was 48.8 percent, Primary school (90.2 percent), Junior Secondary school (89.2 percent) and Senior Secondary school (72.8 percent). School attendance rates by persons with age corresponding to Secondary and Tertiary education levels were 80.3 percent and 34.0 percent, respectively. The results show that persons in urban areas are more likely to attend school at any level of education than their rural counterparts.

Analysis of school attendance rates by sex shows that school attendance rates by males in Pre-primary was 28.2 percent, Primary (81.3 percent), Junior Secondary (86.1 percent) and Senior Secondary (70.9 percent). Equally, school attendance rates for females in Pre-primary was 31.4 percent, Primary (84.8 percent), Junior Secondary (85.3 percent) and Senior Secondary (60.1 percent). Results further show that males aged 19-22 years were more likely to be attending school than their female counterparts at 36.3 percent and 22.5 percent, respectively.

Table 6.1: School Attendance Rates by Age-Group, Residence, Stratum and Sex, Zambia, 2015.

Residence/Stratum/Sex			Pre-primary age	Primary school age		Secondary school age		Primary school age	Secondary school age	Higher education age	Population estimate of persons 5-22 yrs. old attending grades
			5-6 yrs.	7-10 yrs.	11-13 yrs.	14-15 yrs.	16-18 yrs.	7-13 yrs.	14-18 yrs.	19-22 yrs.	1-12
All Zambia		**Total**	**29.8**	**77.2**	**90.9**	**85.7**	**65.3**	**83.1**	**75.7**	**29.4**	**4,697,435**
		Male	28.2	75.5	88.9	86.1	70.9	81.3	78.4	36.3	2,327,154
		Female	31.4	78.9	92.8	85.3	60.1	84.8	73.4	22.5	2,370,281
Residence	Rural	Total	18.2	71.4	88.9	83.4	59.1	79.1	72.7	25.4	2,678,395
		Male	16.4	69.2	86.7	84.2	66.7	77.0	75.8	35.7	1,359,181
		Female	19.9	73.5	91.2	82.7	51.3	81.1	70.1	15.4	1,319,214
	Urban	Total	48.8	87.4	94.1	89.2	72.8	90.2	80.3	34.0	2,019,039
		Male	48.1	86.8	92.8	89.2	76.5	89.3	82.3	37.1	967,972
		Female	49.6	88.0	95.3	89.3	69.7	91.1	78.6	31.0	1,051,067
Stratum	Small Scale	Total	17.5	70.7	88.6	83.1	59.0	78.5	72.5	24.5	2,399,084
		Male	16.0	68.4	86.4	83.3	66.5	76.5	75.2	34.7	1,212,880
		Female	19.1	72.8	90.9	82.8	51.3	80.6	70.4	14.5	1,186,204
	Medium Scale	Total	20.6	85.5	94.1	91.3	69.6	89.2	81.5	42.7	154,558
		Male	15.0	82.3	91.8	91.4	71.7	86.4	82.5	52.6	80,033
		Female	26.5	88.7	96.3	91.2	67.1	92.0	80.2	29.0	74,525
	Large Scale	Total	37.8	85.7	100	100	75.2	91.7	87.7	46.7	8,532
		Male	30.8	90.0	100	100	87.8	94.1	93.2	35.0	4,188
		Female	44.9	82.6	100	100	61.5	90.0	83.7	60.3	4,344
	Non-Agriculture	Total	26.7	72.0	88.1	80.1	49.2	79.0	65.5	23.7	116,220
		Male	24.8	70.5	86.0	90.1	62.3	77.7	76.9	33.0	62,080
		Female	28.8	73.3	90.5	68.4	37.0	80.3	53.7	17.4	54,140
	Low Cost	Total	43.2	85.8	93.4	87.7	72.5	89.0	79.5	31.2	1,572,472
		Male	42.1	84.9	91.4	87.3	76.1	87.6	81.3	34.4	752,424
		Female	44.2	86.6	95.1	88.1	69.2	90.2	78.0	27.9	820,048
	Medium Cost	Total	70.6	94.0	97.0	93.5	74.5	95.3	82.5	40.8	265,924
		Male	70.3	94.5	98.2	95.5	78.8	96.1	85.7	42.8	127,537
		Female	70.8	93.5	96.0	92.1	71.4	94.5	80.1	38.9	138,387
	High Cost	Total	74.6	94.3	96.6	97.5	73.0	95.3	84.4	44.6	180,643
		Male	74.7	93.6	97.6	99.1	76.7	95.3	88.1	48.7	88,011
		Female	74.4	95.1	95.7	95.8	70.4	95.4	81.4	40.9	92,632

Table 6.2 shows school attendance rate by age group, province and sex. The results indicate that Copperbelt Province had the highest school attendance rate (91.2 percent) for persons in primary school age range while Luapula Province had the lowest rate (70.9 percent). Results further show that Muchinga Province (had the highest attendance rate 79.9 percent) for persons in secondary school age range while Eastern Province had the lowest rate (68.8 percent).

Table 6.2: School Attendance Rates by Age Group, Province and Sex, Zambia, 2015.

Province/Sex		Pre-primary age	Primary school age		Secondary school age		Primary school age	Secondary school age	Higher education age	Population estimate of persons 5-22 yrs. old attending grades
		5-6 yrs.	7-10 yrs.	11-13 yrs.	14-15 yrs.	16-18 yrs.	7-13 yrs.	14-18 yrs.	19-22 yrs.	1-12
Sex	Total	29.8	77.2	90.9	85.7	65.3	83.1	75.7	29.4	4,697,435
	Male	28.2	75.5	88.9	86.1	70.9	81.3	78.4	36.3	2,327,154
	Female	31.4	78.9	92.8	85.3	60.1	84.8	73.4	22.5	2,370,281
Province										
Central	Total	23.5	80.9	92.3	87.4	64.8	85.6	76.9	29.5	479,067
	Male	22.4	81.9	91.3	85.7	72.7	85.7	78.7	35.6	240,326
	Female	24.6	80.0	93.4	88.7	56.2	85.6	76.1	23.8	238,741
Copperbelt	Total	49.0	88.7	94.3	87.4	70.1	91.2	78.0	37.9	730,386
	Male	46.1	87.2	93.5	85.7	70.6	90.1	78.1	38.9	346,374
	Female	52.0	90.0	95.2	89.4	69.7	92.2	78.0	36.8	384,012
Eastern	Total	18.7	68.0	83.4	78.2	58.4	74.9	68.8	27.2	502,833
	Male	15.4	63.3	76.4	76.6	65.1	69.3	70.7	37.9	250,834
	Female	22.0	72.3	91.2	79.8	51.4	80.5	67.6	16.0	251,999
Luapula	Total	14.6	58.2	83.6	80.6	62.4	70.9	72.4	25.4	313,632
	Male	15.0	56.0	83.5	85.6	67.4	70.1	77.2	36.7	157,522
	Female	14.2	60.3	83.8	76.3	57.8	71.6	68.3	16.8	156,110
Lusaka	Total	47.7	84.9	93.5	87.8	69.0	88.3	77.8	26.3	819,168
	Male	46.9	85.4	90.8	87.6	73.2	87.5	79.8	28.3	391,317
	Female	48.4	84.5	95.8	87.9	65.4	89.1	76.2	24.3	427,851
Muchinga	Total	21.5	76.0	93.7	87.3	72.0	83.6	79.9	31.2	305,513
	Male	19.7	77.3	93.4	88.7	83.3	84.1	85.9	46.6	164,350
	Female	23.1	74.7	94.0	85.9	60.6	83.0	74.6	17.7	141,163
Northern	Total	12.8	67.9	88.9	87.2	58.4	77.2	74.8	26.9	380,988
	Male	14.0	62.9	85.6	89.4	66.6	72.6	78.6	35.1	187,094
	Female	11.7	72.5	91.3	85.1	48.8	81.0	71.3	18.4	193,894
North Western	Total	20.4	75.8	92.5	84.5	67.2	83.0	76.7	29.7	269,757
	Male	19.5	72.7	92.9	87.3	71.3	81.9	79.7	40.1	132,731
	Female	21.3	78.8	92.1	82.2	63.4	84.3	74.1	21.4	137,026
Southern	Total	35.4	82.1	93.3	88.8	67.8	86.8	78.5	31.3	599,514
	Male	32.6	81.4	92.9	90.2	76.3	86.3	82.8	43.0	314,263
	Female	38.2	82.8	93.6	87.4	58.8	87.3	74.7	18.0	285,251
Western	Total	21.4	76.2	92.2	85.3	55.3	83.1	71.8	21.4	296,577
	Male	18.2	71.6	90.5	86.1	58.0	80.3	74.6	27.0	142,342
	Female	24.9	80.2	93.8	84.4	53.4	85.8	69.3	16.5	154,235

Table 6.3 shows school attendance rates by poverty status. Results show that the primary school attendance rate for extremely poor, moderately poor and non-poor persons were 69.4 percent, 75.8 percent and 82.2 percent, respectively.

The results further show that the secondary school attendance rate for extremely poor, moderately poor and non-poor persons were 69.4 percent, 28.7 percent and 33.5 percent, respectively. Analysis by residence shows that primary school attendance rate for extremely poor persons in both rural and urban areas was 70.1 percent and 65.1 percent, respectively. The attendance rate for moderately poor persons in rural and urban areas was estimated at 75.4 percent and 78.9 percent, respectively.

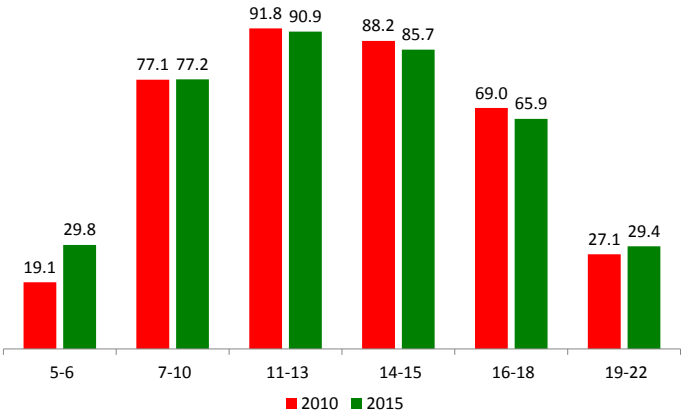
Table 6.3: School Attendance Rates by Age Group and Poverty Status, Zambia, 2015.

Residence/Stratum/Sex		Pre-primary age	Primary school age		Secondary school age		Higher education age	Primary school age	Secondary school age	Population estimate of persons 5-22 yrs. old attending grades
		5-6 yrs.	7-10 yrs.	11-13 yrs.	14-15 yrs.	16-18 yrs.	19-22 yrs.	7-13 yrs.	14-18 yrs.	1-12
All Zambia	Total	29.9	77.3	90.9	85.6	65.2	83.1	75.7	29.4	4,186,079**
	Male	28.3	75.4	88.9	86.1	70.8	81.3	78.4	36.4	2,034,807
	Female	31.4	79.0	92.8	85.2	60.0	84.9	73.4	22.5	2,151,272
	Rural	18.2	71.4	88.9	83.4	59.0	79.0	72.6	25.4	2,422,052
	Urban	49.2	87.6	94.2	89.2	72.7	90.3	80.3	34.0	1,764,027
Extremely Poor	Total	13.3	66.6	85.3	80.5	54.3	74.9	69.4	23.7	1,716,512
	Male	12.0	64.8	82.5	80.0	61.5	72.6	71.1	32.9	838,839
	Female	14.5	68.2	88.0	80.9	46.9	77.0	68.3	13.3	877,674
	Rural	12.9	66.3	86.1	81.2	54.8	75.1	70.1	23.0	1,494,481
	Urban	15.9	68.7	79.9	75.9	51.8	73.6	65.1	27.3	222,032
Moderately Poor	Total	22.3	80.6	95.1	84.8	64.9	86.9	75.8	28.7	572,283
	Male	22.4	77.2	93.2	86.3	71.2	84.5	79.4	37.4	281,984
	Female	22.2	83.5	96.9	83.0	58.1	89.0	72.0	19.7	290,299
	Rural	22.7	78.2	94.6	85.7	61.8	85.4	75.4	28.8	383,044
	Urban	21.3	85.8	96.0	82.9	70.7	90.1	76.9	28.6	189,239
Non Poor	Total	51.7	89.9	96.1	91.7	74.2	92.5	82.2	33.5	1,897,283
	Male	49.6	88.6	95.0	92.6	79.2	91.3	85.3	38.7	913,984
	Female	53.8	91.1	97.2	90.8	70.0	93.6	79.5	28.8	983,299
	Rural	31.8	85.0	94.0	88.1	67.9	88.8	78.0	28.0	544,526
	Urban	60.4	92.1	97.0	93.3	76.6	94.1	83.9	35.8	1,352,757

NOTE **: Individuals whose consumption expenditure was not stated, were omitted from total figure at derivation stage of poverty lines.

Figure 6.1 shows school attendance rates across age groups in 2010 and 2015. The overall rates for pre-school age group (5-6 years) shows a 10 percentage point increase between 2010 and 2015. The attendance rates for primary school age group remained relatively the same over the period under review. Further, school attendance rates for the age-groups 14-15 and 16-18 years dropped by a minimum of 2.5 percentage points over the period. However, school attendance rates went up by 2.3 percentage points for the age-group 19-22 years.

Figure 6.1: School Attendance Rate Trends by Age Group Zambia, 2010 and 2015.



6.3: Gross attendance rate

Gross attendance rate (GAR) is one of the educational indicators that show the proportion of population participating at a given level of education. It reflects the efficiency of the education system in terms of participation by particular age-groups in a corresponding education level, indicating the extent of over-aged or under-aged persons. Ideally, the computed GAR should portray a measure of 100 percent, in principle implying that the education system is able to accommodate all school aged population. However, this is not usually the case as the numerator includes all persons attending a level, regardless of age, and it is possible to obtain a gross attendance rate that is over 100 percent.

Table 6.4 shows the Gross Attendance Rate by grade, Residence, stratum and sex. At national level, the gross attendance rate for primary school was 104.1 percent. This implies that 4.1 percentage points of the population were attending primary level outside the official school age-group (7-13 years). In other words, for every 100 pupils who were eligible for primary school level, 4 more were either younger than 7 or older than 13 years attending this level of education.

The GAR for Junior secondary school and Senior secondary school was 80.8 percent and 51.2 percent, respectively.

In rural and urban areas, the GAR for primary school was 102.6 percent and 106.7 percent, respectively.

In rural areas the GAR for Junior and senior secondary schools were 67.7 and 31.4 percent, respectively. In urban areas, the GAR for Junior and senior secondary schools were 101.4 percent and 75.0 percent, respectively.

Analysis by sex show that the primary school GAR for males, at 105.3 percent was higher than that of females at 103.0 percent. Similarly, the Junior secondary school rates for males and females were 82.5 and 79.3 percent, respectively.

Table 6.4: Gross Attendance Rates by Grade, Residence, Stratum and Sex, Zambia, 2015.

Province/Sex			Schooling grades				Primary	Primary and Junior secondary	Secondary	Population estimate of persons 5-22 yrs. old attending Grades 1-12.
			1-4	5-7	8-9	10-12	1-7	1-9	8-12	
Total Zambia		**Total**	**107.0**	**99.6**	**80.8**	**51.2**	**104.1**	**99.1**	**64.4**	**4,697,435**
		Male	108.0	101.3	82.5	55.6	105.3	100.4	67.6	2,327,154
		Female	106.1	97.9	79.3	47.1	103.0	97.9	61.3	2,370,281
Residence	Rural	Total	108.1	93.7	67.7	31.4	102.6	95.3	48.5	2,678,395
		Male	108.3	93.9	74.5	38.8	102.6	96.8	55.3	1,359,181
		Female	107.8	93.6	61.2	23.8	102.5	93.8	41.8	1,319,214
	Urban	Total	105.2	109.1	101.4	75.0	106.7	105.5	85.8	2,019,039
		Male	107.3	114.3	95.1	78.0	110.1	106.7	85.2	967,972
		Female	103.2	104.5	107.4	72.5	103.7	104.5	86.2	1,051,067
Stratum	Small Scale	Total	107.8	93.0	66.3	29.3	102.1	94.6	46.9	2,399,084
		Male	107.8	92.5	74.7	35.8	101.8	96.3	53.8	1,212,880
		Female	107.7	93.4	58.5	22.7	102.3	93.1	40.2	1,186,204
	Medium Scale	Total	121.8	108.1	82.9	51.1	116.2	108.6	66.4	154,558
		Male	118.5	117.5	71.7	65.6	118.1	106.6	68.6	80,033
		Female	125.1	99.1	97.1	34.2	114.2	110.7	63.7	74,525
	Large Scale	Total	146.2	105.9	119.1	43.7	130.9	127.4	76.4	8,532
		Male	161.0	88.9	158.5	47.4	133.5	141.6	93.3	4,188
		Female	135.3	118.5	82.7	39.6	129.0	116.2	59.2	4,344
	Non-Agriculture	Total	98.0	93.0	74.2	45.2	96.1	91.5	57.0	116,220
		Male	105.3	96.6	69.2	59.8	101.7	94.5	63.9	62,080
		Female	91.5	88.9	80.1	31.4	90.6	88.6	49.9	54,140
	Low Cost	Total	104.6	111.0	98.8	67.5	107.1	105.2	80.5	1,572,472
		Male	107.2	117.6	92.5	67.8	111.3	106.9	78.4	752,424
		Female	102.2	105.3	104.8	67.1	103.4	103.7	82.4	820,048
	Medium Cost	Total	110.5	105.0	115.3	99.5	108.2	109.8	105.2	265,924
		Male	112.5	108.6	111.6	111.7	110.9	111.0	111.7	127,537
		Female	108.5	101.7	118.1	90.4	105.7	108.7	100.4	138,387
	High Cost	Total	103.7	97.8	106.9	101.8	101.2	102.5	103.8	180,643
		Male	101.1	94.4	99.1	123.9	98.3	98.5	112.9	88,011
		Female	106.4	101.1	114.6	86.5	104.1	106.5	96.6	92,632

Figure 6.2 shows the Gross Attendance Rates in 2010 and 2015. The figure shows a downward trend in GAR in the primary and Junior Secondary School grades, while there was an upward trend in Senior Secondary School grades during this period. This implies that more persons were attending senior education level in 2015 than in 2010.

Table 6.5 shows the GAR by grade, province and sex. Analysis by province shows that Southern Province had the highest primary GAR at 109.6 percent while Luapula Province had the lowest GAR at 91.7 percent.

The results further show that Copperbelt (101.3 percent) had the highest GAR for Junior secondary school while Eastern (59 percent) had the lowest rate. Copperbelt (74.1 percent) had the highest GAR for Senior secondary school while Western (32.4 percent) had the lowest rate.

Figure 6.2: Gross Attendance Rates by Grades, Zambia, 2010 and 2015.

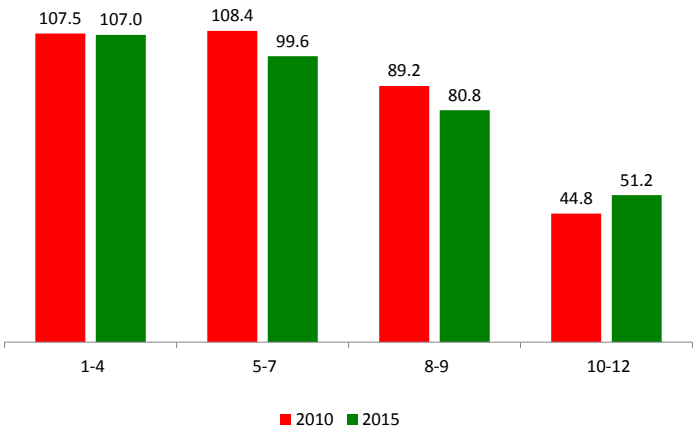


Table 6.5: Gross Attendance Rates by Grade, Province and Sex, Zambia, 2015.

Province/Sex		Schooling grades				Primary	Primary and Junior secondary	Secondary	Population estimate of persons 5-22 years. old attending grades 1-12.
		1-4	5-7	8-9	10-12	1-7	1-9	8-12	
All Zambia	**Total**	**107.0**	**99.6**	**80.8**	**51.2**	**104.1**	**99.1**	**64.4**	**4,697,435**
	Male	108.0	101.3	82.5	55.6	105.3	100.4	67.6	2,327,154
	Female	106.1	97.9	79.3	47.1	103.0	97.9	61.3	2,370,281
Central	Total	105.2	110.7	78.7	53.1	107.3	100.9	64.9	479,067
	Male	105.4	111.2	89.1	58.8	107.6	103.8	71.6	240,326
	Female	105.0	110.2	70.4	46.9	107.0	98.3	58.6	238,741
Copperbelt	Total	100.9	111.7	101.3	74.1	105.5	104.6	85.1	730,386
	Male	103.9	113.4	92.7	74.6	108.1	104.5	82.7	346,374
	Female	98.3	110.1	110.9	73.7	103.2	104.7	87.2	384,012
Eastern	Total	111.4	81.0	58.9	35.5	99.3	91.0	46.1	502,833
	Male	110.5	78.2	59.3	44.6	97.1	89.3	51.2	250,834
	Female	112.1	84.0	58.6	26.1	101.5	92.6	41.0	251,999
Luapula	Total	104.2	73.5	64.4	37.2	91.7	85.8	50.5	313,632
	Male	108.5	69.9	68.3	45.6	92.5	87.6	56.5	157,522
	Female	100.1	77.2	61.1	29.5	90.9	84.1	45.3	156,110
Lusaka	Total	104.4	110.4	98.8	59.5	106.6	104.9	75.7	819,168
	Male	106.0	121.7	87.4	60.9	111.8	106.4	71.9	391,317
	Female	103.0	100.5	109.1	58.3	102.1	103.6	79.0	427,851
Muchinga	Total	105.6	104.6	80.9	46.8	105.2	100.4	62.7	305,513
	Male	107.4	104.0	94.8	51.2	106.1	103.9	71.8	164,350
	Female	103.6	105.2	66.4	42.3	104.2	96.5	53.5	141,163
Northern	Total	103.0	99.2	71.9	32.4	101.5	95.0	50.9	380,988
	Male	99.0	112.8	82.7	35.7	103.8	98.8	57.0	187,094
	Female	106.6	89.0	60.7	28.7	99.6	91.6	44.1	193,894
North-Western	Total	116.7	89.2	74.2	49.1	106.1	99.3	61.4	269,757
	Male	112.9	85.9	91.6	54.0	102.2	100.1	71.7	132,731
	Female	120.3	92.7	60.3	44.6	110.0	98.5	52.6	137,026
Southern	Total	113.9	103.0	85.6	54.3	109.6	104.3	68.2	599,514
	Male	116.6	103.8	91.0	64.2	111.6	107.1	75.7	314,264
	Female	111.2	102.1	80.6	44.0	107.6	101.4	60.7	285,251
Western	Total	109.5	97.5	64.6	32.4	104.8	97.1	46.7	296,577
	Male	110.5	95.7	59.9	35.8	104.6	95.5	47.7	142,342
	Female	108.6	99.2	69.6	30.0	105.1	98.5	45.8	154,235

Table 6.6 shows the Gross Attendance Rate by poverty status 2015.

The results show that the Primary school (1-7) Gross Attendance Rate among the extremely poor, moderately poor and non-poor was 97.7, 113.3 and 109.0 percent, respectively. The results further show that the Secondary school (8-12) gross attendance rate among the extremely poor, moderately poor and non-poor was 38.1, 60.4 and 89.9 percent, respectively.

Table 6.6: Gross Attendance Rates by Grade and Poverty Status, Zambia, 2015.

Poverty status/Residence/ Sex		Schooling grades				Primary school	Primary & Junior secondary	Secondary	Population estimate of persons 5-22 years old attending Grades 1-12.
		1-4	5-7	8-9	10-12	1-7	1-9	8-12	
Total Zambia	Total	107.0	99.5	80.8	51.2	104.1	99.1	64.4	4,677,585**
	Male	107.8	101.3	82.6	55.5	105.2	100.4	67.6	2,315,476
	Female	106.2	97.9	79.1	47.1	103.0	97.9	61.3	2,362,109
	Rural	108.0	93.7	67.7	31.4	102.5	95.2	48.5	2,671,009
	Urban	105.2	109.2	101.3	75.1	106.8	105.6	85.8	2,006,576
Extremely Poor	Total	102.7	89.6	56.7	21.2	97.7	89.4	38.1	1,864,202
	Male	104.1	88.9	65.6	25.6	98.3	91.9	43.9	935,642
	Female	101.4	90.3	48.8	16.6	97.1	87.2	32.5	928,560
	Rural	104.4	87.8	56.2	18.9	98.1	89.8	36.9	1,620,149
	Urban	90.6	101.6	59.9	33.4	95.0	87.1	45.5	244,053
Moderately Poor	Total	115.8	109.4	75.5	46.3	113.3	104.5	60.4	650,133
	Male	116.8	120.5	71.3	54.7	118.3	106.3	62.9	329,622
	Female	115.0	98.6	80.4	37.4	108.8	102.8	57.7	320,511
	Rural	115.4	106.2	70.9	42.2	111.8	102.4	56.2	432,884
	Urban	116.8	116.4	85.1	54.3	116.6	109.0	68.8	217,249
Non Poor	Total	109.5	108.1	109.2	76.9	109.0	109.0	89.9	2,163,250
	Male	109.8	109.5	105.4	83.1	109.7	108.7	92.4	1,050,212
	Female	109.3	106.7	112.8	71.7	108.3	109.3	87.8	1,113,038
	Rural	115.9	104.2	99.8	55.8	111.2	108.6	75.0	617,976
	Urban	106.7	109.8	113.5	84.9	108.0	109.2	96.1	1,545,274

NOTE **: Individuals whose expenditures or income was not stated, were omitted from total figure at derivation stage of poverty levels.

6.4: Net attendance rate

The Net Attendance Rate (NAR) is the number of persons of the official school age-group for a given level of education, expressed as a percentage of the corresponding total population. The indicator is calculated by dividing the number of official age-group attending a given level of education, by the population of same age-group and then multiplying by 100.

Table 6.7 shows net attendance rates by grade, Residence, stratum and sex. At national level, the primary school net attendance rate was 78.6 percent. This means that almost 79 out of every 100 children aged 7-13 years were appropriately attending primary school grades. The NAR for Junior secondary school was estimated at 30.2 percent, while NAR for Senior secondary school was estimated at 25.6 percent.

Analysis by Residence shows that the NAR for primary school and secondary school going persons in the rural areas was estimated at 75.5 and 31.5 percent, respectively. In the urban areas, the NAR for primary school was 84.0 percent and that for secondary school was 60.0 percent.

Analysis by stratum shows that in the rural areas, the Net Attendance Rate was lowest among persons from the small scale agricultural and the non-agricultural households who were attending senior secondary school.

The primary school NAR for small scale and non-agricultural households was estimated at 74.9 and 75.3 percent, respectively while the senior secondary school NAR for small scale and non-agricultural households was 11.9 and 22.5 percent, respectively.

In the urban strata, the primary school net attendance rate for low cost was 83.9 percent and senior secondary school was at 36.9 percent. In the medium cost, the NAR for primary and senior secondary schools was 85.0 and 53.7 percent, respectively. In the high cost, the NAR for primary and senior secondary schools was 83.7 and 55.1 percent, respectively.

Table 6.7: Net Attendance Rates by Grade, Residence, Stratum and Sex, Zambia, 2015.

Residence/Stratum/Sex			Schooling grade				Primary	Primary and Junior Secondary	Secondary	Population estimate of persons 7-18 years. Attending grades
			1-4	5-7	8-9	10-12	1-7	1-9	8-12	1-12
All Zambia		Total	68.5	48.0	30.2	25.6	78.6	81.0	43.7	4,204,282
		Male	67.6	45.4	28.3	25.8	77.1	79.9	42.8	2,045,700
		Female	69.4	50.4	32.1	25.4	80.1	82.1	44.5	2,158,581
Residence	Rural	Total	65.9	41.6	21.2	12.8	75.5	77.6	31.5	2,429,248
		Male	63.9	39.0	20.0	14.9	73.5	76.2	32.4	1,206,451
		Female	67.7	44.3	22.3	10.6	77.3	79.0	30.7	1,222,797
	Urban	Total	73.2	58.3	44.3	40.9	84.0	86.7	60.0	1,775,034
		Male	74.4	56.8	41.2	40.3	83.5	86.3	57.7	839,250
		Female	72.2	59.7	47.2	41.4	84.5	87.0	62.1	935,785
Stratum	Small Scale	Total	65.3	40.7	20.2	11.9	74.9	77.1	30.3	2,180,842
		Male	63.3	37.9	18.9	13.7	72.9	75.6	31.0	1,078,928
		Female	67.3	43.5	21.3	10.0	76.8	78.5	29.6	1,101,913
	Medium Scale	Total	78.5	48.5	25.2	17.6	86.3	88.3	39.8	136,883
		Male	75.6	44.1	20.1	20.7	83.6	86.0	36.0	69,236
		Female	81.4	52.7	31.8	14.0	89.1	90.6	44.4	67,647
	Large Scale	Total	75.7	41.9	46.8	31.6	90.7	92.7	60.6	7,365
		Male	77.9	23.6	55.3	38.6	93.8	95.2	71.4	3,584
		Female	74.0	55.6	39.0	23.9	88.4	90.8	49.7	3,781
	Non-Agriculture	Total	62.7	54.3	36.0	22.5	75.3	75.5	42.8	104,158
		Male	62.4	56.9	38.3	28.2	74.8	75.4	49.5	54,702
		Female	62.9	51.5	33.2	17.2	75.8	75.6	36.0	49,455
	Low Cost	Total	72.9	57.5	42.2	36.9	83.9	86.1	57.0	1,392,060
		Male	74.0	53.9	37.4	35.4	82.7	85.4	53.3	656,094
		Female	71.8	60.6	46.8	38.3	85.0	86.7	60.5	735,966
	Medium Cost	Total	77.5	61.4	47.8	53.7	85.0	89.5	69.0	225,644
		Male	78.7	66.6	50.4	55.3	87.9	91.9	70.8	106,161
		Female	76.3	56.5	45.8	52.5	82.3	87.4	67.7	119,482
	High Cost	Total	70.9	61.7	59.7	55.1	83.7	88.5	73.3	157,330
		Male	72.0	67.5	65.7	64.1	84.7	87.7	81.5	76,994
		Female	69.7	56.0	53.8	48.9	82.7	89.3	66.7	80,337

Figure 6.3 shows the Net Attendance Rates by grade. In general, NAR tends to reduce as the educational level increases.

Figure 6.3: Net Attendance Rates by Grade Level, Zambia, 2015.

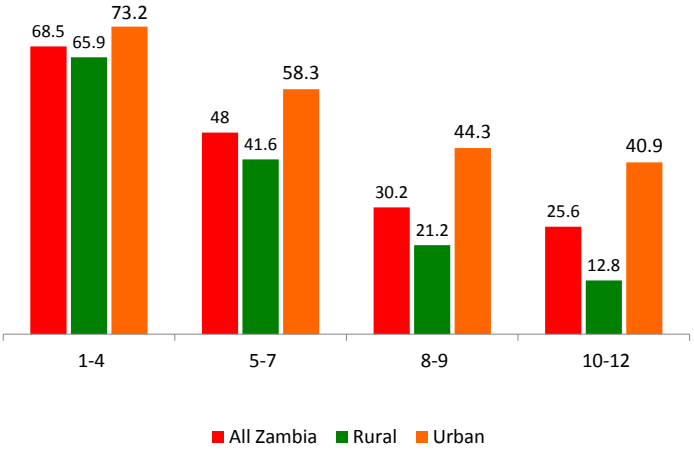


Figure 6.4 shows Net Attendance Rates by grade in 2010 and 2015. Results show that there was a marginal decrease in NAR for grades 1-7 while there was a marginal improvement in NAR for grades 8-12.

Figure 6.4: Net Attendance Rates by Grade, Zambia, 2010 and 2015.

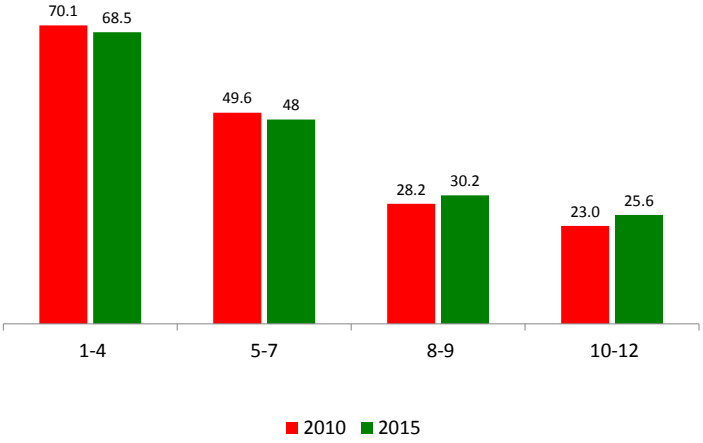


Table 6.8 shows the net attendance rates by grade level, province and sex. Analysis by province shows that Copperbelt Province had the highest primary school net attendance rate (83.8 percent), followed by Southern Province while Luapula Province (65.3 percent) had the lowest rate (83.0 percent).

For Junior Secondary, Lusaka Province had the highest NAR at 45.2 percent followed by Copperbelt Province (39.9 percent) while Eastern Province (18.0 percent) had the lowest rate. The highest Senior Secondary NAR was recorded on the Copperbelt at 38.3 percent,), followed by Lusaka Province (35.1 percent) while Eastern Province (13.3 percent) had the lowest rate.

Table 6.8: Net Attendance Rate by Grades, Province and Sex, Zambia, 2015.

Province/Sex		Schooling grades				Primary	Primary and Secondary	Secondary	Population estimate attending grades
		1-4	5-7	8-9	10-12	1-7	1-9	8-12	1-12
Total Zambia	**Total**	**68.5**	**48.0**	**30.2**	**25.6**	**78.6**	**81.0**	**43.7**	**4,204,282**
	Male	67.6	45.4	28.3	25.8	77.1	79.9	42.8	2,045,700
	Female	69.4	50.4	32.1	25.4	80.1	82.1	44.5	2,158,581
Central	Total	74.3	55.9	31.8	25.5	81.9	84.0	43.8	431,629
	Male	76.0	56.5	29.9	28.0	82.2	83.3	46.0	213,589
	Female	72.5	55.4	33.3	22.7	81.6	84.7	41.8	218,040
Copperbelt	Total	70.4	63.2	39.9	38.3	83.8	86.2	57.2	638,806
	Male	72.4	63.2	38.5	34.0	83.4	85.1	53.6	298,979
	Female	68.8	63.2	41.6	41.6	84.2	87.3	60.4	339,827
Eastern	Total	63.1	31.3	18.0	13.3	71.5	73.2	28.2	450,487
	Male	59.5	26.6	14.3	13.9	66.4	68.9	25.9	218,595
	Female	66.5	36.5	21.6	12.7	76.7	77.5	30.6	231,892
Luapula	Total	53.5	29.9	20.2	15.1	65.3	69.3	31.8	285,125
	Male	51.9	27.4	19.9	19.9	64.9	69.8	33.6	140,100
	Female	55.1	32.4	20.4	10.8	65.6	68.8	30.3	145,024
Lusaka	Total	73.8	56.4	45.2	35.1	82.9	85.8	55.6	730,247
	Male	74.5	53.3	39.4	35.1	82.4	85.5	51.5	345,085
	Female	73.3	59.1	50.3	35.1	83.4	86.0	59.2	385,162
Muchinga	Total	67.6	47.2	28.6	25.4	80.4	82.4	43.6	276,409
	Male	69.1	45.7	31.5	25.7	81.3	83.3	47.4	146,938
	Female	66.0	48.7	25.7	25.0	79.4	81.4	39.6	129,471
Northern	Total	62.5	40.9	23.3	14.8	73.6	77.1	33.3	349,465
	Male	58.0	39.6	21.5	16.2	69.3	74.2	35.7	166,814
	Female	66.6	41.9	25.0	13.1	77.3	79.7	30.6	182,651
North Western	Total	68.3	39.7	26.5	20.5	77.9	79.6	39.3	238,072
	Male	65.6	38.2	29.8	19.3	75.7	79.1	41.0	115,560
	Female	70.9	41.2	23.8	21.6	80.1	80.1	37.8	122,512
Southern	Total	73.4	51.6	29.3	25.7	83.0	84.4	46.5	531,263
	Male	72.9	46.9	26.4	28.3	82.4	84.8	46.5	271,959
	Female	73.9	56.3	32.0	23.0	83.6	83.9	46.5	259,304
Western	Total	71.1	47.2	20.3	16.5	79.7	81.6	32.4	272,779
	Male	66.6	43.2	19.6	18.3	76.7	79.2	30.4	128,082
	Female	75.1	51.2	21.0	15.3	82.5	84.0	34.1	144,697

Figure 6.5 shows primary school Net Attendance Rate by province. Copperbelt (83.8 percent) had the highest NAR while Luapula (65.3 percent) had the lowest NAR. Further, results show that North-Western, Northern, Eastern and Luapula provinces had NAR below the national rate.

Figure 6.5: Primary School net attendance rates by province, Zambia, 2015.

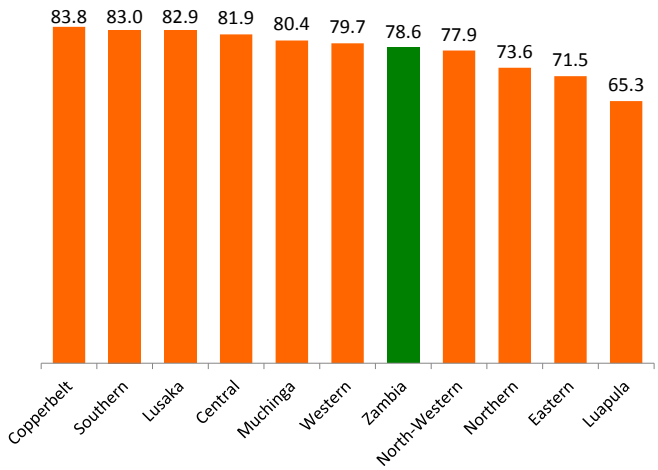


Table 6.9 shows the net attendance rate by grade and poverty status for 2015.

Analysis by poverty status shows that the net attendance rate for primary and secondary schools for the extremely poor persons was 71.3 and 24.4 percent, respectively

Table 6.9: Net Attendance Rates by Grades and Poverty Status, Zambia, 2015.

Poverty status/Residence/ Sex		Schooling grades			persons 7-18 years old	Primary	Primary and Junior Secondary	Secondary	Population estimate attending grades
		1-4	5-7	8-9	10-12	1-7	1-9	8-12	1-12
All Zambia	**Total**	**68.5**	**48.0**	**29.3**	**25.2**	**78.6**	**80.7**	**43.5**	**4,186,079****
	Male	67.5	45.4	27.2	25.2	77.0	79.5	42.5	2,034,807
	Female	69.5	50.5	31.3	25.2	80.1	81.8	44.4	2,151,272
	Rural	65.8	41.6	20.8	12.7	75.4	77.4	31.5	2,422,052
	Urban	73.3	58.5	42.5	40.2	84.1	86.3	59.7	1,764,027
Extremely Poor	Total	61.1	37.0	14.9	7.7	71.3	73.5	24.4	1,716,512
	Male	59.8	32.7	13.7	8.2	69.6	71.9	24.3	838,839
	Female	62.3	41.1	15.9	7.2	73.0	74.9	24.5	877,674
	Rural	61.1	35.7	14.1	6.5	71.5	73.7	23.4	1,494,481
	Urban	60.7	45.5	19.4	14.2	70.5	72.2	30.1	222,032
Moderately Poor	Total	73.5	50.5	27.0	18.5	83.7	83.8	39.7	572,283
	Male	70.9	50.9	21.2	20.8	81.3	82.1	38.9	281,984
	Female	75.8	50.1	33.7	16.0	85.8	85.4	40.5	290,299
	Rural	71.9	49.1	24.7	16.0	81.9	82.8	35.2	383,044
	Urban	77.3	53.3	31.9	23.2	87.7	85.9	48.6	189,239
Non Poor	Total	76.5	60.3	46.0	41.2	86.0	88.5	62.3	1,897,283
	Male	76.5	58.6	44.1	41.9	85.0	87.9	61.5	913,984
	Female	76.4	61.9	47.7	40.5	87.0	89.1	63.1	983,299
	Rural	78.7	55.9	38.0	26.1	84.7	86.3	50.8	544,526
	Urban	75.5	62.2	49.6	46.8	86.6	89.5	67.1	1,352,757

NOTE **: Individuals whose expenditures or income was not stated, were omitted from total figure at derivation stage ofpoverty levels.

6.5. School Attendance by Type of School and Level

Table 6.10 shows the percentage distribution of School attendance rates by type of school and level. Type of school refers to institutional ownership or the entity that runs the school. Regardless of the level of education, most persons were attending school in central government facilities. Private schools had the second highest enrolments of persons at all levels.

Table 6.10: School Attendance Rates by Type of School and Level, Zambia, 2015.

Type of School	Central Government	Local Government (Councils)	Mission/ Religious	Industrial	Private	Other*	Community	Total
All levels	**84.0**	**1.0**	**2.1**	**0.1**	**10.0**	**0.4**	**2.3**	**100**
Primary	83.5	1.2	2.5	0.1	10.4	0.0	2.4	100
Secondary	90.9	0.0	3.0	0.0	6.0	0.0	0.0	100
College	62.1	0.9	3.5	0.3	33.1	0.0	0.0	100
University or above	66.3	0.0	3.1	0.2	30.0	0.4	0.0	100

INote (*): Attending school abroad.

6.6. Characteristics of Persons not in Education at the time of Survey.

Table 6.11 shows the percentage distribution of the population five years or older who were not attending school at the time of the survey by highest level of education attained, residence, age group and sex.

Overall, 27 percent of the population aged five years or older had no formal education. Almost 35 percent of the population had attended primary level of education. Of the total estimated population aged 5 years or older 1.4 percent had Degree or higher qualifications.

Table 6.11: Percentage Distribution of Population Five Years or Older who were not in Education at the time of the Survey by Highest Level of Education Attained, Residence, Age Group and Sex, Zambia, 2015.

Residence, Age Group and Sex	Highest Level Of Education Obtained							Total	Population Estimate Persons 5+ Yrs. Currently Not In Education
	No Education	Grade 1-4	Grade 5-7	Grade 8-9	Grade 10-12 (O-Level)	Grade 12 (A-Level/ Certificate/ Diploma/ under graduate)	Degree (Postgraduate) & Above		
Total Zambia	**27.0**	**10.8**	**24.0**	**16.3**	**15.7**	**4.7**	**1.4**	**100**	**8,959,459**
Sex									
Male	25.2	9.0	21.8	16.6	19.5	5.9	2.0	100	4,310,128
Female	28.7	12.5	26.1	16.1	12.1	3.7	0.8	100	4,649,330
Rural									
Total	33.4	15.3	28.3	14.1	7.2	1.4	0.3	100	5,261,387
Male	31.4	13.0	27.6	15.4	10.2	2.1	0.4	100	2,522,909
Female	35.3	17.5	28.9	13.0	4.5	0.8	0.1	100	2,738,479
Urban									
Total	17.9	4.3	18.1	19.5	27.7	9.5	3.0	100	3,698,071
Male	16.4	3.3	13.7	18.4	32.6	11.3	4.2	100	1,787,220
Female	19.3	5.3	22.1	20.5	23.1	7.8	1.9	100	1,910,852
Age group									
5-9 yrs.	98.2	1.8	0.0	0.0	0.0	0.0	0.0	100	1,624,721
10-14 yrs.	54.0	31.2	12.5	1.5	0.9	0.0	0.0	100	237,347
15-19 yrs.	9.7	15.0	36.6	22.9	15.2	0.6	0.0	100	652,778
20-24 yrs.	4.9	8.0	27.3	27.1	29.8	2.8	0.2	100	1,185,391
25-29 yrs.	7.3	9.2	25.7	22.2	26.4	7.8	1.5	100	1,093,371
30-39 yrs.	8.4	10.8	29.5	21.6	18.6	8.7	2.4	100	1,775,857
40-49 yrs.	8.8	11.8	33.4	19.9	15.6	7.2	3.3	100	1,100,654
50-59 yrs.	12.7	13.2	36.3	12.8	16.2	6.1	2.8	100	647,522
60+ yrs.	26.5	25.5	24.3	9.7	8.3	4.2	1.4	100	641,818

The survey collected data relating to the reason for leaving school among persons not attending school at the time of enumeration. At national level, the main reason cited was lack of financial support to meet educational costs at 40.9 percent. The same reason was the highest cited in both rural and urban at 44.8 and 36.3 percent, respectively.

Pregnancy (10.6 percent) among females was the third major cited reason for leaving school, while for the males "Not selected or failed" (8.3 percent) was their third major reason for leaving school.

Table 6.12: Percentage Distribution of Reasons for Leaving School by Residence and Sex, Zambia, 2015.

	Residence		Sex		Total
Reason for Leaving school	Rural	Urban	Male	Female	
Lack of Financial support	44.8	36.3	42.3	39.4	40.9
Completed Studies/School	7.6	34.6	24.9	15.6	20.2
Not Selected/Failed	9.0	6.8	8.3	7.6	8.0
No need to continue school	8.2	3.3	6.0	5.9	5.9
Pregnancy	5.7	5.0	0.0	10.6	5.4
School Not Important	5.8	2.2	4.3	3.8	4.1
Got Married	3.2	2.7	0.5	5.3	2.9
Too far	4.3	0.8	2.3	3.0	2.7
Illness/Injury /Disabled	3.2	0.8	2.2	2.1	2.1
Started working/Business	1.2	3.1	3.2	0.9	2.1
Needed to help out at home	2.5	0.9	1.4	2.1	1.8
Expensive	1.4	2.0	1.9	1.5	1.7
Unsafe to travel to school	1.0	0.3	0.5	0.9	0.7
Death of Parent(s)/Guardian/Sponsor	0.5	0.6	0.3	0.7	0.5
Made girl pregnant	0.7	0.2	0.9	0.0	0.4
Other	0.4	0.2	0.3	0.4	0.3
Expelled	0.4	0.2	0.5	0.1	0.3
Relocation/Resettlement/Transfer	0.1	0.1	0.1	0.1	0.1
Total	**100**	**100**	**100**	**100**	**100**

Table 6.13 shows the percentage distribution of persons who were not attending school at the time of the survey and had never attended school, by age group and reasons for never having attended school.

The reasons most cited for never having attended school were being under-age (42.1 percent) and never enrolled (27.2 percent). The third prominent reason for never having attended school was lack of financial support (14 percent).

The most common reason cited by persons aged 5-9 years for never having attended school was "under-age" (66.4 percent) whereas "was never enrolled" was the most prominent reason for all persons, i.e. across all age-groups. The least cited reason for never having attended school was "Disability" estimated at 0.2 percent.

Table 6.13: Percentage Distribution by Age Group and Reason for never having Attended School, Zambia, 2015.

Reason for never having attended school 2015	Age group									Total
	5-9	10-14	15-19	20-24	25-29	30-39	40-49	50-59	60+	
Under age	66.4	12.1	3.7	3.6	0.8	0.4	0.5	0.0	0.2	42.1
Was never enrolled	21.1	38.7	29.9	34.2	24.3	36.9	40.3	40.9	42.5	27.2
No Financial support	4.3	19.9	31.0	35.6	43.3	37.3	30.6	24.7	22.4	14.0
School not important	0.4	8.9	17.7	10.1	14.3	14.7	13.4	14.7	15.6	5.5
School Too Far	2.7	4.2	5.6	5.2	8.2	5.3	6.3	9.8	14.0	4.6
Couldn't find a place	2.6	3.8	2.4	1.6	1.3	1.0	1.4	3.0	1.0	2.3
Unsafe to travel to school	1.1	1.4	0.9	1.2	3.0	0.8	2.5	5.2	2.9	1.6
Illness/Injury	0.6	7.5	3.6	4.7	3.3	1.6	2.4	1.0	0.6	1.4
Other	0.3	0.7	3.2	0.2	0.7	1.7	1.8	0.2	0.8	0.6
Expensive	0.4	1.9	0.9	3.1	0.3	0.1	0.6	0.1	0.0	0.5
Disability	0.1	0.9	1.1	0.5	0.5	0.2	0.2	0.4	0.0	0.2
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

CHAPTER 7
HEALTH

7.1 Introduction

The 2015 LCMS collected data on the health status of all persons in Zambia. The health status of a household member directly affects the welfare of the household. Information on health consultations made and health facilities visited was obtained from all persons in the survey who reported illness in order to come up with indicators on incidence of illnesses, medication and health consultations costs. The reference period was the two-week period prior to the survey. The following data were collected in the survey: -

- Whether the individual had been sick or injured in the two-week period preceding the survey
- The symptoms or illnesses the individual suffered from
- Whether a person consulted a health institution(s) or personnel for the illness or injury
- The amount of money spent on medication and/or consultation
- The source of medication and the amount spent
- The type of personnel or institution that attended to the person during the period of illness or injury
- If a person was admitted at an institution and for how long
- The mode of payment used to pay for services, and
- Whether a person was unable to carry out normal activities due to illness or injury.

7.2 Prevalence of illness or Injury

Table 7.1 shows the proportion of persons who were ill/injured in the two-week period preceding the survey by residence, stratum and province. At national level, 14.2 percent of the population reported having had an illness/injury two weeks prior to the survey.

The proportion of persons in rural areas who reported an illness was higher (17.9 percent) than those in urban areas (9.1 percent).

Table 7.1 further shows that 18.3 percent of persons among Small Scale agricultural households and 14.7 percent among Non-agricultural households had reported an illness/injury.

Table 7.1 also shows that 9.7 percent of persons in Low cost areas reported an illness/injury compared to 7 percent in Medium cost and 7.1 percent in High Cost areas.

The distribution of illness/injury by province shows that Eastern reported the highest incidence of illness/injury at 24.7 percent, followed by Luapula at 17.5 percent. Lusaka had the lowest reported incidence of illness/injury at 7.2 percent. Results further show that the poor are more likely to report illness than the non-poor.

Table 7.1: Proportion of Persons reporting Illness in the Two Weeks preceding the Survey by Residence, Stratum, Province and Poverty Status, Zambia, 2015.

Residence/Stratum/Province/Poverty Status		Ill/Injured	Missing	Percent	Total Number of Persons ('000)
Total Zambia		**14.2**	**0.1**	**100**	**15,472**
Residence	Rural	17.9	0.1	100	9,000
	Urban	9.1	0.1	100	6,472
	Total	14.2	0.1	100	15,472
Stratum	Small Scale	18.3	0.1	100	8,103
	Medium Scale	13.2	0.0	100	404
	Large Scale	12.1	0.6	100	20
	Non-Agriculture	14.7	0.1	100	473
	Low Cost	9.7	0.1	100	5,021
	Medium Cost	7.0	0.2	100	848
	High Cost	7.1	0.1	100	603
Province	Central	15.4	0.1	100	1,515
	Copperbelt	10.5	0.2	100	2,362
	Eastern	24.7	0.1	100	1,813
	Luapula	17.5	0.1	100	1,127
	Lusaka	7.2	0.0	100	2,777
	Muchinga	17.4	0.0	100	895
	Northern	15.9	0.1	100	1,304
	North Western	13.0	0.0	100	834
	Southern	13.3	0.2	100	1,852
	Western	15.7	0.0	100	992
Poverty	Extremely Poor	16.3	0.1	100	6,283
	Moderately Poor	15.8	0.0	100	2,094
	Non Poor	11.8	0.1	100	7,026

Figure 7.1: Proportion of Persons Reporting Illness in the Two Weeks Preceding the Survey by Province, Zambia. 2015.

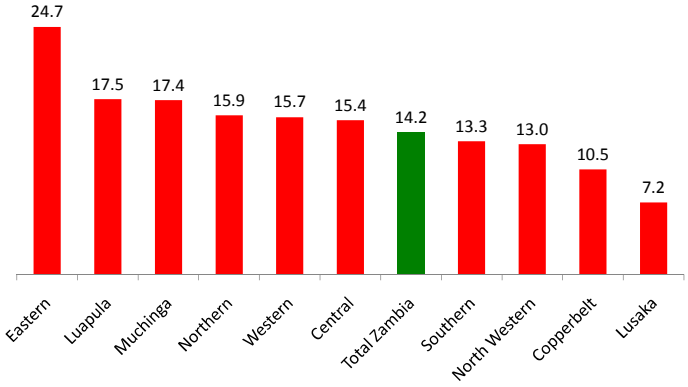


Table 7.2 shows the percentage distribution of persons reporting illness or injury two weeks prior to the survey by sex and age group. The table also shows that 1.6 percent more females than males reported an illness or injury at 15 and 13.4 percent, respectively.

The highest reported incidence of illness/injury was in the age group 50 years or older at 27 percent and lowest in the age group 15 – 19 years at 8.5 percent.

Table 7.2: Percentage Distribution of Persons Reporting Illness /Injury in the Two Week Period Preceding the Survey by Sex and Age Group, Zambia, 2015.

		Not ill or injured	Ill or injured	Missing	Total	Total number ('000)
All Zambia	**Total**	**85.7**	**14.2**	**0.1**	**100.0**	**15,472**
Sex	Male	86.5	13.4	0.1	100.0	7,525
	Female	84.9	15.0	0.1	100.0	7,947
Age group	0-4	75.3	24.6	0.0	100.0	1,664
	5-9	86.7	13.2	0.1	100.0	2,775
	10-14	89.8	10.1	0.2	100.0	2,201
	15-19	91.4	8.5	0.1	100.0	1,951
	20-24	90.2	9.7	0.1	100.0	1,483
	25-29	88.7	11.3	0.1	100.0	1,163
	30-34	87.4	12.5	0.0	100.0	961
	35-39	86.8	13.0	0.2	100.0	868
	40-44	84.6	15.3	0.0	100.0	647
	45-49	82.8	17.2	0.1	100.0	466
	50+	72.9	27.0	0.1	100.0	1,292

7.3. Main illness

Table 7.3 shows the proportion of persons reporting illness by residence and type of illness reported. Respondents were asked to state the main illness that they were suffering from two weeks prior to the survey. At national level, 4 out of every 10 persons cited Fever/malaria as the main cause of illness while 2 in every 10 cited cough/cold/chest infection.

In rural areas, 4 out of every 10 persons cited fever/malaria as the main cause of illness compared to 3 out of every 10 persons in urban areas. Further, in both rural and urban areas, 2 out of every 10 persons cited cough/cold/chest infection as the second highest common cause of illness/injury.

Table 7.3: Percentage Distribution of Persons Reporting Illness by Residence and Type of Illness Reported, Zambia, 2015.

Type of Illness	Rural	Urban	All Zambia	Total number ('000)
Fever/Malaria	43.7	34.9	41.3	910
Cough/Cold/Chest Infection	21.3	23.3	21.9	481
Tuberculosis (TB)	0.5	0.4	0.4	10
Asthma	1.0	0.7	0.9	21
Bronchitis	0.2	0.2	0.2	4
Pneumonia/Chest Pain	0.6	1.1	0.7	16
Diarrhoea without Blood	3.0	3.3	3.1	68
Diarrhoea with Blood	0.6	0.1	0.5	11
Diarrhoea and Vomiting	0.8	1.5	1.0	22
Vomiting	0.2	0.2	0.2	4
Abdominal Pains	3.4	3.7	3.5	77
Constipation/Stomach	1.2	1.3	1.2	26
Liver Infection/Side	0.1	0.1	0.1	3
Lack of Blood/Anaemia	0.4	0.4	0.4	9
Boils	0.4	0.3	0.4	8
Skin Rash/Skin Infection	1.6	2.2	1.7	38
Piles/Hemorrhoids	0.1	0.1	0.1	1
Shingles/Herpes Zoster	0.0	0.0	0.0	0
Paralysis of Any Kind	0.4	0.5	0.5	10
Stroke	0.2	0.5	0.3	6
Hypertension	0.7	1.8	1.0	22
Diabetes/Sugar Diseases	0.4	1.5	0.7	15
Eye Infection	1.4	1.4	1.4	31
Ear Infection	0.3	0.2	0.2	5
Toothache/Mouth Infection	2.6	2.8	2.6	58
Headache	6.0	6.8	6.2	137
Measles	0.0	0.2	0.1	2
Jaundice/Yellowness	0.0	0.0	0.0	0
Backache	2.7	1.9	2.5	55
Cancer of Any Kind	0.1	0.1	0.1	2
Meningitis	0.1	0.0	0.1	2
Body Pains	0.7	1.0	0.8	17
Body Swelling	0.4	0.7	0.4	10
Other	5.0	7.2	5.6	123
Total	**100**	**100**	**100**	**2,200**

Figure 7.2: The 10 most commonly reported illnesses in rural areas, Zambia, 2015.

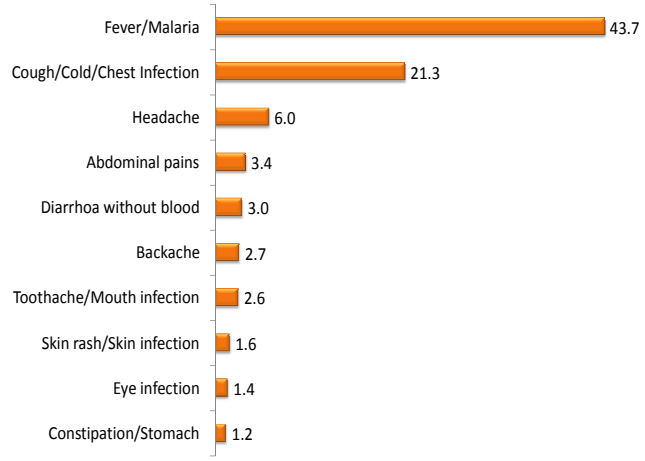


Figure 7.3: The 10 most commonly reported illnesses in urban areas, Zambia, 2015.

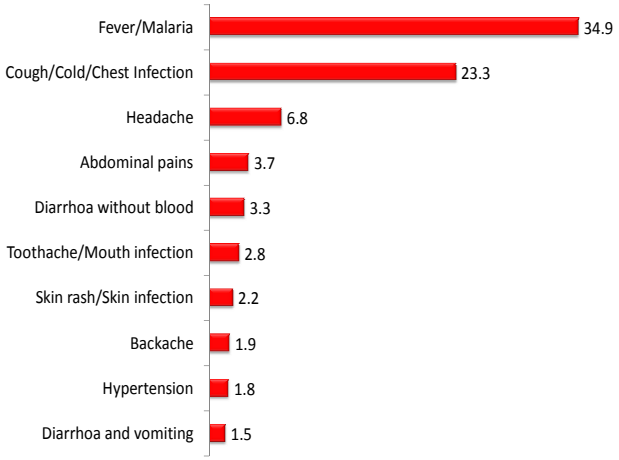


Figure 7.2 shows the 10 most commonly reported illnesses in rural areas were fever/malaria, cough/cold/ chest infection, headache, abdominal pains, diarrhoea without blood, backache, toothache/mouth infection, skin rash/skin infection, eye infection and constipation/ stomach.

Figure 7.3 the 10 most commonly reported illness in urban were fever/malaria, cough/cold/chest infection, headache, abdominal pains, diarrhoea without blood, toothache/ mouth infection, backache, hypertension, pneumonia/ chest pain, asthma and boils.

Table 7.4 shows percentage distribution of persons reporting illness by poverty status and main illness reported. Amongst the extremely poor population, meningitis was first of the top 10 reported illnesses at 43.5 percent, followed by Cough/Cold/Chest infection at 21.8 percent. Among the moderately poor population, Fever /malaria was first of the top 10 reported illnesses at 46.2 percent, followed by Cough/Cold/Chest at 21.6 percent. The tenth reported illness was eye infection at 1.3 percent.

Table 7.4: Percentage Distribution of Persons Reporting Illness by Poverty Status and Main Type of Illness, Zambia, 2015.

Type of Illness	Poverty			
	Extremely Poor	Moderately Poor	Non Poor	Total
Fever/malaria	43.5	46.2	39.6	902,742
Cough/cold/chest infection	21.8	21.6	23.9	480,191
Headache	6	4.6	7.2	133,667
Diarrhoea without blood	3.3	2.8	3.2	67,611
Abdominal pains	3.8	2.5	3.1	71,570
Backache	2.7	2.4	2.2	51,829
Toothache/mouth infection	2.4	1.7	2.6	50,361
Eye infection	1.7	1.3	1.2	30,483
Skin rash/skin infection	1.8	1.8	1.7	37,590
Constipation/stomach upset	1.3	1.6	1.0	25,687
Asthma	1.1	0.9	0.8	20,755
Diarrhoea and vomiting	0.9	0.5	1.3	21,741
Pneumonia/chest pain	0.5	0.5	1.1	15,491
Tuberculosis (TB)	0.5	0.7	0.3	9,759
Vomiting	0.2	0.3	0.1	3,854
Hypertension	0.5	0.9	1.5	20,833
Diarrhoea with blood	0.6	0.8	0.2	10,524
Lack of blood/anaemia	0.4	0.7	0.3	8,928
Boils	0.5	0.4	0.2	7,740
Bronchitis	0.3	0	0.2	3,848
Paralysis of any kind	0.5	0.7	0.3	10,008
Stroke	0.3	0.1	0.3	5,844
Ear infection	0.1	0.7	0.2	5,037
Diabetes/sugar disease	0.5	0.3	1.1	15,068
Jaundice/yellowness	0	0	0.0	460
Liver infection/side pain	0.1	0.2	0.1	2,368
Piles/hemorrhoids	0.1	0.1	0.0	1,260
Shingles/herpes zoster	0	0	0.0	262
Measles	0	0	0.2	1,693
Cancer of any kind	0.1	0	0.1	1,741
Meningitis	0.1	0	0.1	1,555
Other	4.4	5.4	5.8	107,772
Total	**100**	**99.7**	**99.9**	**2,128,272**

Table 7.5 shows the proportion of persons reporting illness/injury by province and type of illness. The results show that fever/malaria was the most common illness reported across all the provinces.

The highest proportion of persons citing fever/malaria during the two weeks prior to the survey was in North Western province at 50.5 percent, followed by Luapula Province at 49.4 percent. Southern Province had the lowest cited cases of fever/malaria at 22.3 percent.

Table 7.5: Proportion of Persons Reporting Illness/Injury by Age Group and Type of Illness Reported, Zambia, 2015.

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Number of Persons ('000)
Fever/malaria	44.8	43.2	45.4	49.4	28.1	47.3	46.9	50.5	22.3	38.4	41.3	910
Cough/cold/chest infection	24.9	19.0	23.4	18.6	27.1	20.9	20.3	15.9	26.9	14.1	21.9	481
Tuberculosis (TB)	0.8	0.1	0.1	0.7	0.1	0.3	0.2	0.7	0.6	1.5	0.4	10
Asthma	0.6	0.6	0.9	0.5	0.0	1.1	1.0	0.3	2.7	1.3	0.9	21
Bronchitis	0.2	0.2	0.4	0.0	0.0	0.2	0.2	0.1	0.2	0.0	0.2	4
Pneumonia/chest pain	0.8	1.3	0.3	0.1	0.9	0.4	1.2	0.6	0.6	1.2	0.7	16
Diarrhoea without blood	2.2	2.2	1.8	3.9	5.0	1.8	3.7	3.1	4.8	4.0	3.1	68
Diarrhoea with blood	0.0	0.2	0.6	1.4	0.0	0.6	0.6	0.0	0.8	0.7	0.5	11
Diarrhoea and vomiting	0.6	0.9	0.7	0.9	2.1	1.0	0.6	0.2	1.5	1.6	1.0	22
Vomiting	0.1	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.1	0.2	4
Abdominal pains	3.3	3.1	2.9	3.9	3.0	5.4	3.8	3.5	3.7	3.5	3.5	77
Constipation/stomach	0.2	1.1	1.3	2.7	1.5	1.4	1.3	0.5	0.8	1.0	1.2	26
Liver infection/side	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.1	3
Lack of blood/anaemia	0.6	0.3	0.2	0.3	0.6	0.7	0.6	0.2	0.6	0.2	0.4	9
Boils	0.8	0.1	0.3	0.9	0.0	0.0	0.7	0.0	0.4	0.3	0.4	8
Skin rash/skin infect	0.4	2.5	1.9	1.7	2.2	1.3	4.0	0.9	0.7	1.1	1.7	38
Piles/haemorrhoids	0.1	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.3	0.0	0.1	1
Shingles/herpes zoster	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0
Paralysis of any kind	0.7	0.3	0.7	0.3	0.6	0.2	0.2	0.2	0.8	0.0	0.5	10
Stroke	0.3	0.6	0.2	0.4	0.3	0.2	0.2	0.0	0.2	0.2	0.3	6
Hypertension	1.4	1.6	0.4	0.9	1.3	0.6	0.2	1.2	0.8	2.2	1.0	22
Diabetes/sugar disease	0.5	2.3	0.2	0.5	1.2	0.6	0.3	1.0	0.5	0.0	0.7	15
Eye infection	2.2	1.0	0.6	1.1	1.1	1.0	0.7	0.9	3.2	2.9	1.4	31
Ear infection	0.3	0.2	0.2	0.0	0.3	0.0	0.1	0.9	0.4	0.3	0.2	5
Toothache/mouth infection	1.9	3.1	3.1	0.8	2.3	2.3	1.4	1.4	3.8	5.3	2.6	58
Headache	5.1	5.6	6.8	3.3	9.7	5.0	4.2	4.3	8.3	8.6	6.2	137
Measles	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.1	2
Jaundice/yellowness	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0
Backache	2.6	2.5	2.1	1.4	1.0	2.3	2.3	4.2	3.6	4.7	2.5	55
Cancer of any kind	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.0	0.1	2
Meningitis	0.0	0.0	0.1	0.2	0.0	0.2	0.0	0.0	0.2	0.0	0.1	2
Body pains	0.4	1.8	0.7	0.2	0.3	0.7	0.4	1.1	1.2	0.9	0.8	17
Body swelling	0.1	0.3	0.3	0.2	1.2	0.2	0.2	0.3	0.7	1.3	0.4	10
Other	4.3	5.4	4.0	5.6	9.5	4.1	4.7	7.6	8.3	4.7	5.6	123
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**2200**

7.4. Health Consultations

Health consultations in this survey mean seeking medical advice from any health institution or personnel. Institutions consulted included medical, traditional, church and spiritual institutions. If a person initially consulted and later used self-administered medicine, this person was regarded as having consulted.

Table 7.6 shows the percentage distribution of persons reporting illness in the last two weeks prior to the survey by residence, province and consultation status. At national level, 70.5 percent of the persons who reported illness during the period under consideration had consulted over their illness or injury, 19.7 percent reported self-administered medication and 9.8 percent neither consulted nor used self-administered medication.

Table 7.6 also shows that 71.4 percent of the population in rural areas consulted compared with 67.9 percent in urban areas. Urban areas had a higher proportion of persons who used self-administered medication at 22.4 percent than rural areas at 18.7 percent.

Analysis by province shows that Eastern had the highest proportion of persons who consulted at 80.7 percent followed by North-Western (73.2 percent) and Luapula had the lowest proportion of persons who made consultation at (58.5 percent).

Luapula had the highest proportion of persons who used self- administered medicine at 29.5 percent while the lowest proportion was in Eastern at 13.3 percent.

Central had the highest proportion of persons who neither consulted nor used self-administered medication at 13.5 percent while Eastern had the lowest (6.0 percent).

Table 7.6: Percentage Distribution of Persons Reporting Illness in the Last Two Weeks Prior to the Survey by Residence, Province and Consultation Status, Zambia, 2015.

Residence and Province	Consulted	Used self-administered medicines	None	Total number of ill persons ('000)
Total	**70.5**	**19.7**	**9.8**	**2,200**
Residence				
Rural	71.4	18.7	9.9	1,610
Urban	67.9	22.4	9.7	591
Province				
Central	69.8	16.7	13.5	234
Copperbelt	66.9	21.8	11.2	249
Eastern	80.7	13.3	6.0	448
Luapula	58.5	29.5	12.0	197
Lusaka	66.4	23.7	9.8	199
Muchinga	72.2	19.0	8.8	156
Northern	65.0	24.3	10.8	208
North Western	73.2	17.1	9.7	108
Southern	69.8	19.4	10.8	246
Western	73.0	18.7	8.3	156

Table 7.7 shows the percentage distribution of persons reporting illness in the two weeks prior to the survey by sex, age group and consultation status. Analysis by sex shows that 70.6 percent of the females compared to 70.4 males consulted health personnel.

Analysis by age group shows that the highest consultations were made for the age group 0-4 years at 79.8 percent, followed by those in the age group 40-44 years at 71.2 percent. The lowest consultations made were for the age group 35-39 years at 62.6 percent. The age group that had the lowest number of persons who consulted also had the highest percentage of users of self-administered medicines.

Analysis of proportion of persons reporting Illness by poverty status shows that the highest proportion of the population that consulted over their illness were the moderately poor at 75.6 percent while both the extremely poor and non-poor presented the same proportion of consultations.

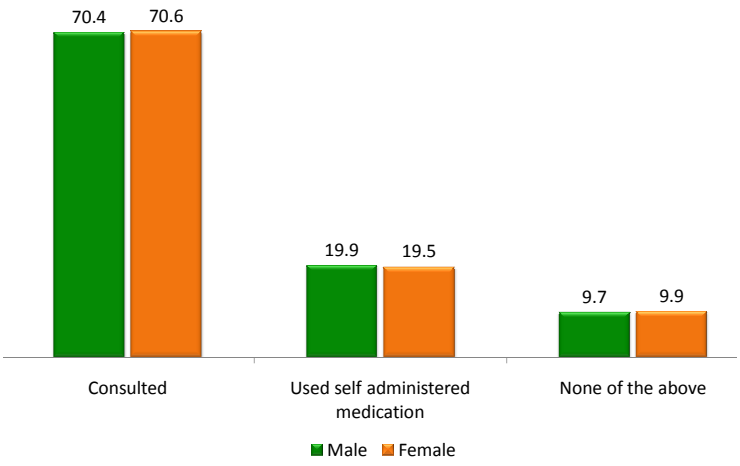
Amongst the non-poor, 22.3 percent used self-administered medicines while among the extremely poor and moderately poor, 18 percent used self-administered medicines, respectively. The extremely poor had a higher percentage of persons that neither consulted nor used self-administered medicines at 12.3 percent than the non-poor (8.1 percent) and moderately poor (6.4 percent).

Table 7.7: Percentage distribution of Persons Reporting Illness in the Last Two Weeks Prior to the Survey by Sex, Age Group, Poverty Status and by Consultation Status, Zambia, 2015.

Sex, Age Group and Poverty Status	Consulted	Used self-administered medicines	None	Total	Total number of ill persons ('000)
Total Zambia	**70.5**	**19.7**	**9.8**	**100**	**2,200**
Sex					
Male	70.4	19.9	9.7	100	1,009
Female	70.6	19.5	9.9	100	1,191
Age Group					
0-4	79.8	13.0	7.2	100	410
5-9	70.9	20.9	8.2	100	367
10-14	67.7	20.8	11.4	100	221
15-19	68.8	19.7	11.5	100	166
20-24	67.6	19.0	13.4	100	144
25-29	69.2	22.5	8.3	100	131
30-34	68.8	22.2	9.0	100	120
35-39	62.6	29.6	7.8	100	113
40-44	71.2	18.7	10.2	100	99
45-49	66.8	19.7	13.5	100	80
50+	67.2	21.0	11.8	100	349
Poverty Status					
Extremely Poor	69.6	18.1	12.3	100	1,027
Moderately Poor	75.6	18.0	6.4	100	331
Non Poor	69.6	22.3	8.1	100	833

Figure 7.4 shows the proportion of persons reporting illness/injury in the two weeks period preceding the survey by sex and consultation status. Results show no major sex differences in terms of their health consultation status. Results reveal similarities in health seeking behaviours by both sexes.

Figure 7.4: Percentage distribution of Persons Reporting Illness in the Last Two Weeks Prior to the Survey by Sex and Consultation Status, Zambia, 2015.



7.4.1 Medical Institution Visited

Persons that reported to have consulted over the illness in the two weeks' period prior to the survey were asked which type of institution (or personnel) they visited.

Table 7.8 shows the percentage distribution of persons who visited a health institution by type of institution (or personnel) visited by residence, stratum and province. The table shows that the publicly owned health facilities were the most visited by persons reporting illness with 58 percent visiting Government clinics and 24.4 percent, Government hospitals.

Lusaka Province had the highest proportion of persons who visited privately owned medical institutions (19.3 percent) while Western had the lowest (0.5 percent), followed by Central and Eastern provinces. North Western and Southern provinces reported about 10 percent of ill persons who visited mission institutions.

Table 7.8: Percentage Distribution of Persons Who Visited a Health Institution by Type of Institution (Or Personnel) Visited by Rural/ Urban, Stratum and Province, Zambia, 2015.

Residence, Stratum and Province	Government Hospital	Government Health Centre/ Clinic	Government Health Post	Mission Institution	Industrial Institution	Private Institution	Institution Outside Zambia	Medical Personnel	Traditional Healer	Faith/ Spiritual/ Church Healer	Other (Specify)	Total	Number of persons reporting illness ('000)
Total Zambia	**24.4**	**58.0**	**7.6**	**3.9**	**0.4**	**3.2**	**0.0**	**0.4**	**0.8**	**0.2**	**1.2**	**100**	**1,551**
Residence													
Rural	21.8	60.0	9.7	4.5	0.0	1.3	0.0	0.3	1.0	0.2	1.2	100	1,150
Urban	31.9	52.4	1.5	1.9	1.6	8.7	0.1	0.6	0.1	0.0	1.3	100	401
Stratum													
Small Scale	21.3	60.4	9.9	4.5	0.0	1.1	0.0	0.3	1.1	0.2	1.2	100	1,065
Medium Scale	26.8	54.4	8.8	6.1	0.1	2.5	0.0	0.0	0.1	0.0	1.1	100	38
Large Scale	41.1	41.7	4.2	8.7	0.0	4.4	0.0	0.0	0.0	0.0	0.0	100	1
Non-Agric	28.5	55.5	6.3	3.6	0.0	4.6	0.0	0.2	0.8	0.0	0.5	100	45
Low Cost	30.6	54.9	1.7	2.0	1.6	7.5	0.0	0.5	0.1	0.0	1.2	100	335
Medium Cost	41.3	39.5	0.6	1.3	1.7	13.2	0.0	0.9	0.5	0.0	1.0	100	40
High Cost	34.0	40.7	0.3	1.7	1.7	16.3	0.8	1.5	0.1	0.0	2.7	100	27
Province													
Central	24.2	66.1	8.2	0.3	0.0	0.9	0.0	0.0	0.1	0.0	0.0	100	163
Copperbelt	25.0	59.0	2.5	2.5	3.5	5.1	0.0	0.2	0.0	0.0	2.2	100	167
Eastern	20.2	61.4	11.4	4.2	0.0	0.8	0.0	0.2	0.8	0.1	0.9	100	362
Luapula	15.9	73.3	4.2	1.8	0.0	1.5	0.0	0.5	1.2	0.0	1.7	100	115
Lusaka	21.2	54.1	2.0	2.5	0.0	19.3	0.2	0.3	0.1	0.0	0.4	100	132
Muchinga	28.5	56.1	8.3	1.5	0.1	0.6	0.0	0.9	0.9	0.2	2.8	100	113
Northern	26.6	60.8	6.4	1.8	0.0	1.4	0.0	0.6	1.3	0.6	0.5	100	135
North Western	37.2	44.1	5.3	10.1	0.4	1.8	0.0	0.1	0.4	0.0	0.5	100	79
Southern	31.0	42.6	8.6	10.3	0.1	2.9	0.0	0.9	1.4	0.5	1.8	100	172
Western	23.5	54.9	13.1	4.2	0.0	0.5	0.0	0.1	2.2	0.0	1.6	100	114

7.4.2. Personnel Consulted

Table 7.9 also shows Clinical officers are based mostly in Government health institutions. Doctors are mostly found in hospitals and large health centres. Table 7.9 shows percentage distribution of persons consulting over their illness in the last two weeks prior to the survey by province and type of personnel consulted during the first visit. At national level, the highest proportion of ill persons consulted a clinical officer (40.5 percent) followed by Nurses and midwives (35 percent). A higher percentage of ill persons consulted a medical doctor in urban (29.9 percent) compared to 12.7 percent in rural areas.

The highest proportions of persons attended to by clinical officers was in Northern Province at 48.2 percent. Lusaka Province had the highest proportion of persons reporting illness being attended to by medical doctors at 34.8 percent. The highest proportion of persons attended to by community health workers was in Western Province at (9.6 percent) followed by Muchinga at 7.0 percent.

Table 7.9: Percentage Distribution of Persons Consulting over their illness in the Last Two Weeks Prior to the Survey by Province and Type of Personnel Consulted during the First Visit, Zambia, 2015.

Residence, Stratum and Province	Medical Personnel									Number of persons who reported sickness ('000)
	Medical Doctor	Clinical Officer	Nurse/Mid-wife	Commu-nity Health Worker	Traditional Healer	Faith Healer	Spiritual Healer	Church Healer	Other	
Total Zambia	**17.1**	**40.5**	**35**	**5**	**0.8**	**0**	**0**	**0.1**	**1.4**	**1551**
Rural	12.7	41	36.6	6.8	1	0	0	0.2	1.7	1150
Urban	29.9	39	30.4	0.1	0.1	0	0	0	0.4	401
Stratum										
Small Scale	12.4	41.2	36.9	6.5	1	0	0	0.2	1.7	1065
Medium Scale	15.3	42.2	33.6	7.1	0.1	0	0	0	1.7	38
Large Scale	14.8	28.3	47.9	9	0	0	0	0	0	1
Non-Agric	16.3	36.8	32.2	13.7	0.8	0	0	0	0.3	45
Low Cost	28	39.5	31.8	0.1	0.1	0	0	0	0.4	335
Medium Cost	33	40.1	26.3	0.1	0.5	0	0	0	0	40
High Cost	48.9	30.7	19	0	0.2	0	0	0	1.2	27
Province										
Central	15.9	45.8	31.5	6.4	0.1	0	0	0	0.2	163
Copperbelt	30.1	38.8	29.8	0.8	0	0	0	0	0.5	167
Eastern	13.1	47	30.8	6.9	0.8	0.1	0	0.1	1.1	362
Luapula	8	33.8	48.9	5.8	1.3	0	0	0	2.2	115
Lusaka	34.8	39.5	23.5	0.3	0.1	0	0	0	1.8	132
Muchinga	15.4	42.5	30.8	7	0.8	0	0.3	0	3.2	113
Northern	11.4	48.2	32.2	3.8	1	0	0	0.5	2.9	135
North Western	11.4	35.1	48.3	4.4	0.4	0	0	0	0.5	79
Southern	20.4	32.5	40.3	4.1	1.4	0	0	0.5	0.8	172
Western	8.8	27.3	50.4	9.6	2.2	0	0	0	1.7	114

7.4.3 Mode of Payment for Consultation

Table 7.10 shows the percentage distribution of persons who consulted over their illness by mode of payment. The table shows that at national level, 16 percent of the person who consulted over their illness paid for their treatment directly, 75 percent indicated that they did not pay for their treatment, and only 1 percent paid using a pre-payment scheme.

In urban areas, 24.2 percent of the population reported to have paid directly compared to 13.2 percent in rural areas. Pre-payment schemes were reported mostly in urban areas, although they do exist in rural areas. Health insurance is negligible nationwide.

Table 7.10: Percentage distribution of Persons who consulted over the Illness by Province and Mode of Payment Used to Pay for Consultation, 2015.

	Pre-payment low cost scheme	Pre-payment scheme high cost	Paid for by employer	Paid by insurance	Paid part and the oth-er part by other;(e.g. Employer, friend	Paid directly	Didn't pay	Paid for by other (specify)	Not applicable	total number of persons ('000)
Total Zambia	**0.5**	**0.5**	**0.5**	**0.1**	**0.1**	**16.0**	**75.0**	**0.2**	**7.1**	**1,551**
Rural	0.4	0.0	0.1	0.0	0.0	13.2	78.6	0.1	7.6	1,150
Urban	0.6	1.8	1.8	0.1	0.4	24.2	64.8	0.7	5.5	401
Stratum										
Small Scale	0.4	0.0	0.0	0.0	0.0	12.6	79.2	0.1	7.6	1,065
Medium Scale	1.1	0.3	0.0	0.0	0.4	22.3	67.0	0.0	9.0	38
Large Scale	0.0	3.8	0.0	0.0	0.0	10.6	85.6	0.0	0.0	1
Non-Agric	0.3	0.0	1.0	0.0	0.0	18.1	74.0	0.0	6.5	45
Low Cost	0.4	1.3	1.7	0.2	0.4	22.9	66.6	0.7	5.7	335
Medium Cost	1.7	2.7	2.9	0.0	0.0	29.9	55.5	0.8	6.6	40
High Cost	1.6	7.3	0.6	0.0	0.0	32.1	56.1	0.8	1.5	27
Province										
Central	0.2	0.1	0.2	0.0	0.0	18.9	75.1	0.1	5.4	163
Copperbelt	0.8	2.6	1.6	0.0	0.0	18.9	70.0	0.4	5.6	167
Eastern	0.0	0.0	0.0	0.1	0.0	3.7	85.3	0.0	10.8	362
Luapula	0.0	0.2	0.0	0.0	0.0	6.5	86.3	0.2	6.8	115
Lusaka	0.2	1.1	3.1	0.0	0.9	39.3	48.9	1.1	5.4	132
Muchinga	0.2	0.0	0.0	0.0	0.0	6.1	80.1	0.2	13.3	113
Northern	0.4	0.2	0.0	0.4	0.0	6.3	86.4	0.4	5.9	135
North Western	0.2	0.3	0.1	0.0	0.4	6.0	92.3	0.1	0.6	79
Southern	2.6	0.5	0.4	0.0	0.1	50.3	43.6	0.1	2.5	172
Western	0.0	0.0	0.0	0.0	0.0	6.0	85.0	0.0	8.9	114

7.4.4. Average Amount Paid for Consultation and/or Medication

Data on the amount paid for either consultation or medication was collected from all persons who reported an illness. Table 7.11 shows the average amount spent on consultation and/or medication, by persons consulted and residence. At national level, the average amount spent on consultation and/or medication was K113.70.

The average amount spent on consultation and/or medication in rural areas was K72.64 while in urban areas the average amount was K176.22.

Results shows that the highest average amount spent on individual consultation was on a Traditional healer at K349.56 followed by a Medical Doctor at K303.10.

Table 7.11: Average Amount Spent on Consultation and/or Medication by Persons Consulted and Residence Zambia, 2015.

Persons Consulted	Amount in Kwacha		
	Rural	Urban	Total Zambia
Medical Doctor	234.59	352.59	303.10
Clinical Officer	16.12	44.20	25.95
Nurse/Midwife	14.14	42.22	23.46
Community Health Worker	7.67	14.15	7.89
Traditional Healer	361.61	147.77	349.56
Spiritual Healer	30.00	.	30.00
Church Healer	8.69	.	8.69
Other Personnel	10.88	21.75	14.19
All Zambia	72.64	176.22	113.70

CHAPTER 8
ECONOMIC ACTIVITIES OF THE POPULATION

8.1 Introduction

The general welfare of any society largely depends on the active economic participation of its citizens. The engagement of individuals in gainful economic activities directly influence households' well-being. Human beings have always exchanged their labour with income in order to access various basic needs such as, food, shelter, health and clothing.

It is therefore, imperative to assess and monitor the economic participation of the population in various economic activities in the country. Sometimes inordinate changes in the levels of economic participation could have implications in the poverty status and general well-being of the citizenry.

A number of topics were incorporated for measuring the economic activities in Zambia. The 2015 LCMS adopted similar methodology that was used in 2010 when processing, analysing and reporting economic activities of the population. Therefore, references may be made to earlier reports in order to facilitate comparisons and monitoring of the changes.

This chapter covers the following topics:

- *Main economic activity*
- *Labour force participation*
- *Employment and unemployment*
- *Sector of employment, formal and informal*
- *The prevalence of secondary jobs*
- *Reasons for changing jobs*
- *Income generating activities for those not currently working.*

8.2. Concepts and Definitions

The following concepts and definitions constituted the guiding principles for collecting, processing and analysing economic activities and labour force data. Concepts used in this chapter conform to the International Labour Organization (ILO) definitions of economic activity and labour force except for age cut off.

8.2.1. The Economically Active Population (Labour Force)

Economically active population relates to all persons aged 12 years or older of either sex whose main economic activity status was to supply their labour for the production of economic goods and services during the time of the survey.

8.2.2. Labour Force Participation Rate

This refers to the total labour force expressed as a percentage of the working age population. It measures the extent of an economy's working age population that is economically active. A low activity rate implies that a large proportion of persons are not participating in the labour market.

8.2.3. The Employed Population

This comprises persons who performed some work or conducted business for pay, profit or family gain.

8.2.4. Employment Status

Employment status of the working population was classified into the following categories:

Employer: A person who operated his or her own economic enterprise(s) and used hired labour.

Paid Employee: A person who worked for a public or private employer and received remuneration in wages or salaries either in cash or in kind.

Self-employed: Refers to a person who operated his or her own economic enterprise(s) and hired no employees.

Unpaid Family Worker: Refers to a person who normally assisted in the family business or farm but did not receive any pay or profit for work performed. These persons were regarded as employed.

8.2.5. Unemployed Population

This constituted persons who at the time of the survey, were either looking for work/means to do business or were not looking for work/means to do business but were available for work/business. According to ILO guidelines, anybody who is without work, but is available for work and seeking work is classified as unemployed.

8.2.6. Unemployment Rate

This refers to the number of unemployed persons expressed as a percentage of the labour force or economically active population.

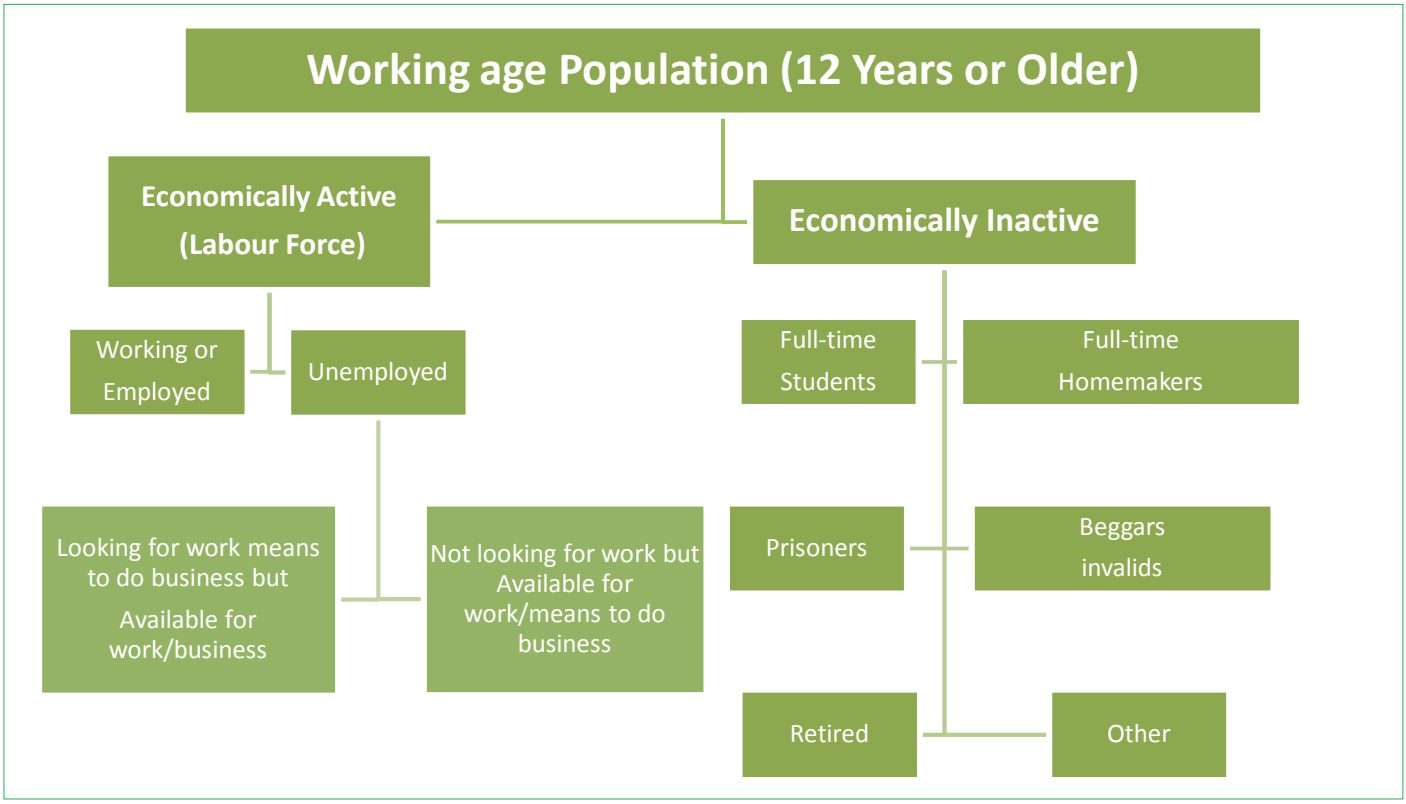
8.2.7. Inactive Population

This refers to persons aged 12 years or older who were not economically active (not in the labour force). It includes full time students (but not students on paid study leave), full time homemakers, retired persons not doing any gainful work or business, invalids, vagabonds, beggars, etc.

8.2.8. Diagrammatical Representation of Economic Activity

Below is the diagrammatical representation of the economic activity status of the population aged 12 years or older.

Figure 8.1: Diagrammatical Representation of Economic Activity, Zambia, 2015.



8.3. Economic Activity Status

The economic status of the population 12 years or older has been divided into two categories namely; economically active (labour force) and the economically inactive. The total working age population was 10,128,909.

Tables 8.1 show the percentage distribution of the population aged 12 years or older by main economic activity and inactivity status, sex, residence, stratum and province. The results show that 58.5 percent (5, 925,412) of the population were in the labour force, while 41.5 percent (4, 203,497) were economically inactive. Of those that were in the labour force, 43 percent, 6.3 percent and 9.2 percent were in paid employment, unpaid family workers and not working, respectively.

Analysis by sex shows that 65.9 percent of males and 51.7 percent of females were in the labour force. Among those in the inactive population, there were 14.2 percent more females than males.

Rural areas (61.3 percent) had a larger percentage share of the labour force as opposed to the urban population (55.4 percent).

The highest proportion of the economically active population was in Small Scale stratum at 61.8 percent and the lowest proportion was among Non-agricultural households at 56.7 percent. In the case of urban areas, there were no marked differences in the levels of economic activity although residents in High Cost areas (56.7 percent) are more likely to be in the labour force compared to their counterparts in Low (55.2 percent) and Medium cost areas (55.3 percent).

At provincial level Eastern Province recorded highest economically active population at 63.4 percent

Table 8.1: Percentage Distribution of the Population Aged 12 Years or Older by Main Economic Activity Status, Sex, Residence, Stratum and Province, Zambia, 2015.

Sex, Residence, Stratum and Province	Economically Active Population (Labour force)	Economically Inactive population	Total	12 Years or Older
Total Zambia	**58.5**	**41.5**	**100**	**10,128,909**
Male	65.9	34.1	100	4,925,178
Female	51.7	48.3	100	5,203,731
Rural	61.3	38.6	100	5,611,820
Urban	55.4	44.6	100	4,517,089
Small Scale	61.8	38.3	100	5,026,168
Medium Scale	57.1	42.8	100	263,829
Large Scale	56.9	43.2	100	14,991
Non-Agric	56.7	43.3	100	306,832
Low Cost	55.2	44.7	100	3,435,710
Medium Cost	55.3	44.7	100	623,453
High Cost	56.7	43.3	100	457,927
Central	55.8	44.1	100	984,783
Copperbelt	55.9	44	100	1,64,9732
Eastern	63.4	36.7	100	1,145,318
Luapula	55.8	44.3	100	695,736
Lusaka	58.8	41.2	100	1,941,736
Muchinga	59.4	40.6	100	564,838
Northern	62.1	38	100	813,893
North -Western	57.4	42.5	100	525,453
Southern	57.4	42.6	100	1,183,205
Western	62.3	37.8	100	624,216

Table 8.2 shows percentage distribution of the population aged 12 years or older by main economic activity status, sex, residence, stratum and province. In the economically active population 43 percent were in paid employment while unpaid family workers accounted for 6.3 percent. For the economically inactivity population full time students accounted for 27 percent. Rural areas had 45.5 percent of population in paid employment compared to 40.0 percent in urban areas.

At provincial level, Eastern Province followed by Western Province had the highest proportion of labour force in paid employees at 47 and 46.7 percent, respectively, while Copperbelt Province had the lowest at 39.2 percent.

Table 8.2: Percentage Distribution of the Population Aged 12 Years or Older by Main Economic Activity Status, Sex, Residence, Stratum and Province, Zambia, 2015.

Sex/Residence/ Stratum/ Province	Economic status							Total	12 years or Older
	Economically active population (Labour force)			Economically In-active population					
	Paid Employment	Un-Paid Family Worker	Not Working	Full Time Student	Home-Maker	Retired/Too Old/Young	Other		
Total Zambia	**43**	**6.3**	**9.2**	**27**	**10.3**	**3.8**	**0.4**	**100**	**10,128,909**
Male	52.2	3.9	9.8	28.5	1.6	3.6	0.4	100	4,925,178
Female	34.4	8.6	8.7	25.5	18.5	3.9	0.3	100	5,203,731
Rural	45.5	10.5	5.3	26.2	8.6	3.3	0.5	100	5,611,820
Urban	40	1.2	14.2	27.8	12.3	4.3	0.2	100	4,517,089
Small Scale	46	10.7	5.1	26	8.3	3.4	0.6	100	5,026,168
Medium Scale	37.7	14.9	4.5	34.3	6	2.4	0.1	100	263,829
Large Scale	38.5	14.8	3.6	38.5	3.7	0.7	0.3	100	14,991
Non-Agric	44.8	2.5	9.4	22.7	16.2	4	0.4	100	306,832
Low Cost	39.8	1.3	14.1	27.3	13	4.2	0.2	100	3,435,710
Medium Cost	39.5	1.1	14.7	30.1	10.6	3.9	0.1	100	623,453
High Cost	41.9	1.1	13.7	28.4	9.5	5	0.4	100	457,927
Central	41.5	7.1	7.2	28	12	3.5	0.6	100	984,783
Copperbelt	39.2	2	14.7	25.6	11.4	6.8	0.2	100	1,649,732
Eastern	47	13.3	3.1	24.7	7.8	3.6	0.6	100	1,145,318
Luapula	41.6	9.5	4.7	28	13.2	2.6	0.5	100	695,736
Lusaka	42.6	0.9	15.3	26.1	12.8	2.2	0.1	100	1,941,736
Muchinga	44.5	9.2	5.7	29.3	6.6	4.5	0.2	100	564,838
Northern	44.7	13.1	4.3	28.1	7.3	2.5	0.1	100	813,893
North Western	44.3	2.3	10.8	29.7	9	3.3	0.5	100	525,453
Southern	43.1	7.6	6.7	28.5	9	4.4	0.7	100	1,183,205
Western	46.7	7	8.6	25.6	8.8	2.9	0.5	100	624,216

Figure 8.2 shows the percentage shares by economically active and economically in-active population in 2010 and 2015. In 2015, 58.5 percent of the population were economically active compared to 61.7 percent in 2010. In absolute terms, 5,925,412 persons were economically active in 2015 compared to 4,094,000 persons in 2010 representing an increase of 1,831,412 persons.

Figure 8.2: Percentage Shares by Economically Active and Economically in-Active Population, Zambia, 2010 And 2015,

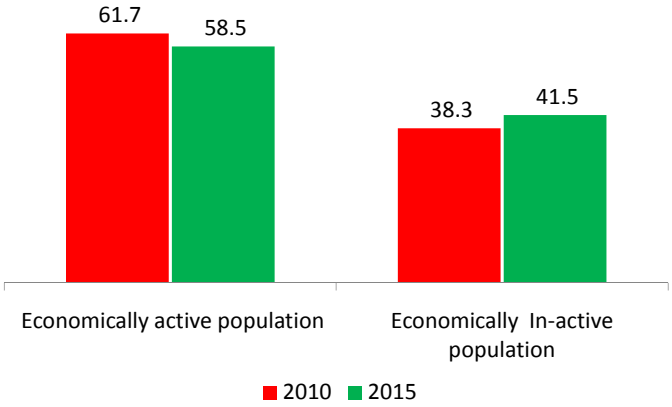
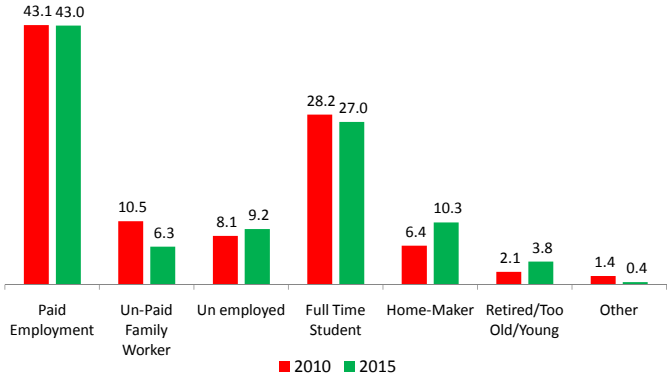


Figure 8.3 shows percentage shares by main economic activity in 2010 and 2015.The proportion of the economically active population in paid employment in 2015 was 43 percent compared to 43.1 percent in 2010. The proportion of unpaid family workers in 2015 was 6.3 percent representing a 4.2 percentage point reduction from 10.5 percent in 2010. The proportion of the economically active population that was unemployed in 2015 was 9.2 percent compared to 8.1 percent in 2010.

Figure 8.3 Percentage Shares by Main Economic Activity, 2010 and 2015.



8.3.1 Labour force Participation Rates

Table 8.3 shows the labour force participation rates among the working age population by sex, Residence, stratum and province. The labour force participation rate for males was higher (65.9 percent) compared to that of females at 51.7 percent.

The labour force participation rate in rural areas was higher than that of urban areas by 5.8 percentage points at 61.2 percent and 55.4 percent respectively.

At province, results show that Eastern Province had the highest participation rate at 63.3 percent, followed by Western Province at 62.2 percent. The least was Luapula Province at 55.7 percent.

Table 8.3: Labour Force Participation Rates Among Persons Aged 12 Years or Older by Sex, Residence, Stratum and Province, Zambia, 2015.

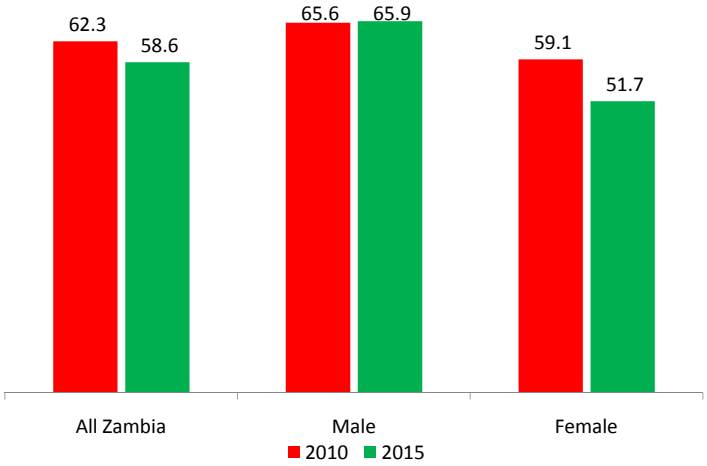
	Participation rate			Total number of persons 12 yrs and above
	Both sexes	Male	Female	
Total Zambia	**58.6**	**65.9**	**51.7**	**10,128,909**
Residence				
Rural	61.2	65.9	56.8	5,611,820
Urban	55.4	65.9	45.6	4,517,089
Province				
Central	55.8	65.3	46.8	984,783
Copperbelt	55.9	66.0	46.2	1,649,732
Eastern	63.3	67.9	58.9	1,145,318
Luapula	55.7	62.6	49.7	695,736
Lusaka	58.8	69.8	48.5	1,941,736
Muchinga	59.5	62.5	56.4	564,838
Northern	62.0	66.3	58.0	813,893
North Western	57.5	62.4	53.2	525,453
Southern	57.4	61.4	53.4	1,183,205
Western	62.2	68.5	56.8	624,216

Figure 8.4 shows labour force participation rates among persons aged 12 years or older by sex in 2010 and 2015. Overall, there has been a decline in the labour force participation rates. The results show a 3.7 percentage point reduction in the labour force participation rate from 62.3 percent in 2010 to 58.6 percent in 2015. The labour force participation rate for males have been higher than that of females. Female labour force participation rates declined from 59.1 percent in 2010 to 51.7 percent in 2015.

Table 8.4 shows the labour force participation rates among persons aged 12 years or older by sex and Residence. The labour force participation rates increased from age group 12-19 years peaking at the age group of 40-44 years (89.5 percent) before declining in the age group 65 years and older.

Analysis by sex, the pattern of participation in labour force by males and females in both rural and urban areas was similar to that at national level.

Figure 8.4: Labour Force Participation Rates among Persons Aged 12 Years or Older by Sex, Zambia, 2010 and 2015.



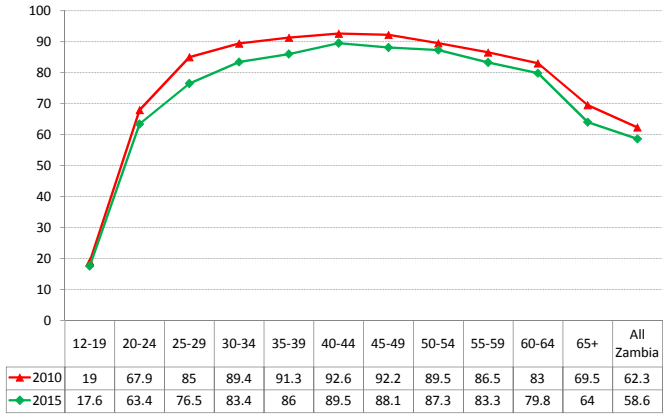
Further, results indicate that males had higher labour force participation rates across all age groups except for the age group 12-19 years.

Table 8.4: Labour Force Participation Rates among Persons aged 12 years or older by Sex, Residence and Age group, Zambia, 2015.

Age Group	Participation rate									Number of persons 12 years or older
	Total			Rural			Urban			
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	
Total Zambia	**65.9**	**51.7**	**58.6**	**65.9**	**56.8**	**61.2**	**65.9**	**45.6**	**55.4**	**10,128,909**
12-19	17.3	17.8	17.6	19.5	21.9	20.7	14.2	12.5	13.3	3,246,793
20-24	69.5	57.6	63.4	70.1	65.5	67.7	68.8	49.1	58.7	1,483,397
25-29	91.3	63.9	76.5	93.3	71.4	81.7	89.2	56.6	71.2	1,163,404
30-34	98.3	69.8	83.4	97.7	76.5	86.6	98.9	62.6	80.0	960,741
35-39	98.3	74.0	86.0	98.8	76.7	87.4	97.7	71.0	84.5	868,372
40-44	98.4	79.8	89.5	99.6	81.8	91.2	97.0	77.6	87.5	647,030
45-49	98.3	76.7	88.1	98.1	80.1	89.4	98.5	72.0	86.3	466,454
50-54	97.0	78.3	87.3	97.3	83.4	89.8	96.5	70.2	83.8	362,640
55-59	91.2	75.1	83.3	94.7	82.7	88.7	85.9	62.7	74.9	287,784
60-64	88.6	72.6	79.8	95.0	82.6	88.4	78.4	58.9	67.3	198,116
65+	75.0	54.2	64.0	82.7	63.4	72.4	56.8	32.3	43.8	444,177

Figure 8.5 shows labour force participation rates among persons aged 12 years or older for 2010 and 2015. In both years the labour force participation rates are lower in the age groups 12-24 and are relatively higher between 25 years and 65 years.

Figure 8.5: Labour Force Participation Rates among Persons Aged 12 Years or Older by Age Group, Zambia, 2010 and 2015.



8.3.2. Unemployment Rates

Table 8.5 shows the unemployment rates among persons aged 12 years or older by sex, residence, stratum and province. The proportion of the economically active population not employed was 15.8 percent. Of these, 14.9 and 16.8 percent were male and female, respectively.

Unemployment rate in urban areas was 17 percent higher than in rural areas at 25.6 and 8.6 percent, respectively. In the rural stratum unemployment was higher in the nonagricultural households at 16.6 percent. In urban areas unemployment was highest in the medium cost stratum at 26.6 percent.

Analysis by province shows that Copperbelt had the highest unemployment rates at 26.3 percent while Eastern Province had the lowest at 4.9 percent.

Table 8.5: Unemployment Rates Among Persons Aged 12 Years or Older by Sex, Residence, Stratum and Province, Zambia, 2015.

All Zambia Residence Stratum Province	Unemployment Rate			Total Number of Persons 12 Years or Older in Labour Force
	Male	Female	Both Sexes	
Total	**14.9**	**16.8**	**15.8**	**5,925,412**
Rural	8.7	8.5	8.6	3,436,499
Urban	22.8	29.3	25.6	2,500,768
Small Scale	8.5	7.8	8.2	3,103,428
Medium Scale	7.3	8.5	7.8	150,578
Large Scale	9.0	2.9	6.3	8,527
Non-Agric	11.8	24.1	16.6	173,966
Low Cost	22.8	29.5	25.6	1,896,433
Medium Cost	24.3	29.4	26.6	344,688
High Cost	20.8	28.3	24.2	259,647
Central	11.6	14.6	12.9	549,981
Copperbelt	25.6	27.3	26.3	922,555
Eastern	5.7	4.1	4.9	725,252
Luapula	10.2	6.4	8.4	387,708
Lusaka	20.6	33.2	26.0	1,141,778
Muchinga	8.1	11.4	9.7	335,807
Northern	7.3	6.5	6.9	504,832
North Western	20.7	16.8	18.8	301,950
Southern	11.1	12.3	11.7	679
Western	13.9	13.9	13.9	389

Figure 8.6 shows unemployment rates among persons aged 12 years or older by sex in 2010 and 2015. Overall, there was 2.6 percent increase in total unemployment rates as well as female unemployment in 2010 and 2015 period. Male unemployment increased by 2.7 percent from 12.2 percent in 2010 to 14.9 percent in 2015.

Figure 8.7 shows unemployment rates among persons aged 12 years or older by Residence in 2010 and 2015. Unemployment rates in rural areas increased from 5.0 percent in 2010 to 8.6 percent in 2015 where as urban unemployment declined by 3.6 percent points from 29.2 percent in 2010 to 25.6 percent in 2015.

Figure 8.6: Unemployment Rates Among Persons Aged 12 Years or Older by Sex, Zambia, 2010 and 2015.

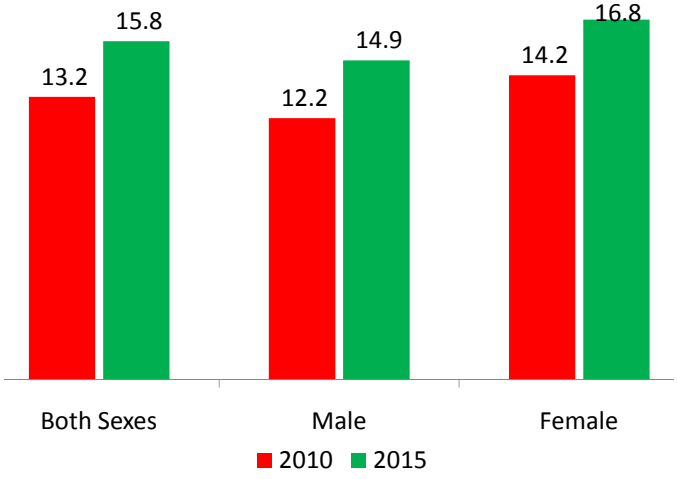


Figure 8.7: Unemployment Rates Among Persons Aged 12 Years or Older by Residence, Zambia, 2010 and 2015.

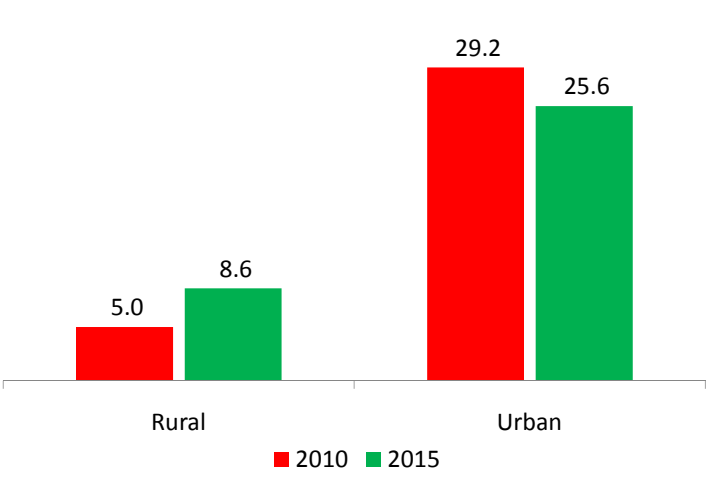


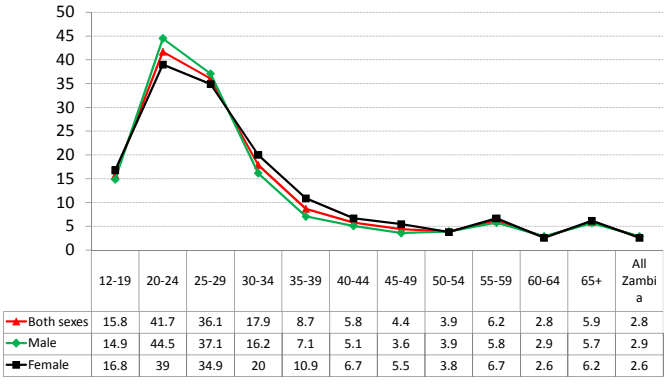
Table 8.6 shows the unemployment rates among persons aged 12 years or older by age group, sex and Residence. The age groups 12-19, 20-24, and 25-29 years had the highest unemployment rates at 41.7, 36.1 and 17.9 percent, respectively. The age groups with the lowest unemployment rates were 55-59 and 65 years or older at 2.8 percent. Urban areas had higher unemployment rates for the same age groups compared to rural areas.

Table 8.5: Unemployment Rates among Persons Aged 12 Years or Older by Sex, Residence and Age Group, Zambia, 2015.

Age Group	Unemployment Rate									Number of Persons 12 Years or Older in Labour Force
	Total			Rural			Urban			
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	
Total Zambia	**14.9**	**16.8**	**15.8**	**8.7**	**8.5**	**8.6**	**22.8**	**29.3**	**25.6**	**5,925,412**
12-19	44.5	39.0	41.7	28.9	25.1	26.9	76.2	70.7	73.5	571,218
20-24	37.1	34.9	36.1	21.2	16.0	18.6	54.6	62.6	58.0	940,004
25-29	16.2	20.0	17.9	7.1	7.5	7.3	26.4	35.5	30.4	889,763
30-34	7.1	10.9	8.7	4.5	4.2	4.3	9.8	19.6	13.8	801,092
35-39	5.1	6.7	5.8	2.3	2.8	2.5	7.9	11.4	9.4	746,813
40-44	3.6	5.5	4.4	2.6	2.3	2.5	4.8	9.1	6.6	578,993
45-49	3.9	3.8	3.9	1.9	2.5	2.2	6.5	5.7	6.2	410,755
50-54	5.8	6.7	6.2	1.6	3.6	2.6	11.4	12.6	11.8	316,698
55-59	2.9	2.6	2.8	2.8	2.1	2.5	3.0	3.7	3.3	239,742
60-64	5.7	6.2	5.9	3.4	3.7	3.5	10.1	11.1	10.6	158,107
65+	2.9	2.6	2.8	2.0	2.3	2.1	6.1	4.2	5.3	284,082

Figure 8.8 shows unemployment rates among persons aged 12 years or older by age group and sex. The unemployment rate for males between the age range 12-14 years tend to be higher than that of females and that of national average. However, between ages 25- 50 years the unemployment rate for females was higher than that of males and national average.

Figure 8.8: Unemployment Rates among Persons Aged 12 Years or Older by Sex and Age Group, Zambia, 2015.



	12-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	All Zambia
Both sexes	15.8	41.7	36.1	17.9	8.7	5.8	4.4	3.9	6.2	2.8	5.9	2.8
Male	14.9	44.5	37.1	16.2	7.1	5.1	3.6	3.9	5.8	2.9	5.7	2.9
Female	16.8	39	34.9	20	10.9	6.7	5.5	3.8	6.7	2.6	6.2	2.6

8.4. Employment Status, Industry and Occupation of Employed Persons

The section looks at the information of the employed population and their distribution by industry and occupation. Respondents were asked to state their main current economic activity and the kind of work or business undertaken by their establishment. The responses were then classified using the International Standard Industrial Classification of all economic activities (ISIC Rev 4) code.

8.4.1. Distribution of Employed Persons by Industry

The percentage distribution of employed persons by province, age and residence provides valuable information for planning purposes and uses by various stakeholders. Policy makers require information on employed persons and the type of work they are engaged in for them to identify which industries are more productive and employ most persons.

Table 8.7 shows the percentage distribution of employed persons aged 12 years or older by industry, Residence and sex. The industry 'Agriculture, Forestry and Fisheries' had the highest proportion of employed persons at 58.7 percent. The least proportion were in the 'Water Supply Sewerage, Waste management and Remediation activities', 'Real estate Activities' at 0.1 percent, each.

The 'Agriculture, Forestry and Fisheries' industry had the highest proportion of employed persons at 86.9 percent in rural areas while 'Trade, Wholesale and Retail distribution' in urban areas accounted for the highest proportion at 31.1 percent.

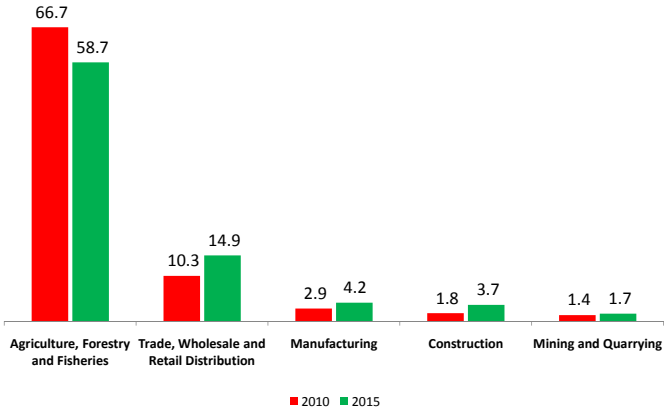
Females were mainly employed in 'Agriculture, Forestry and Fisheries' (63.2 percent), 'Trade, Wholesale and Retail distribution' (19.8 percent), Education (3.6 percent), 'Activities of Households as Employers' (2.8 percent), 'Other service activities' (1.9 percent), 'Human health and Social work' (1.4 percent) while males were mainly employed in Agriculture, forestry and fisheries (55.1 percent), Construction (6.6 percent), Manufacturing (6.0 percent) and Transportation (4.3 percent).

Table 8.7: Percentage Distribution of Employed Persons Aged 12 Years or Older by Industry, Sex and Residence, Zambia, 2015.

Industry	All Zambia			Rural			Urban		
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes
All Zambia	**2,760,859**	**2,241,242**	**5,002,101**	**1,654,269**	**1,486,802**	**3,141,070**	**1,106,590**	**754,440**	**1,861,030**
All Zambia	100	100	100	100	100	100	100	100	100
Agriculture, forestry and fisheries	55.1	63.2	58.7	85.3	88.7	86.9	9.9	13.0	11.2
Mining and quarrying	2.8	0.3	1.7	0.5	0.1	0.3	6.2	0.7	4.0
Manufacturing	6.0	2.1	4.2	2.2	1.5	1.9	11.6	3.3	8.2
Electricity, gas, steam and air conditioning supply	0.7	0.1	0.4	0.1	0.0	0.1	1.5	0.4	1.1
Water Supply Sewerage, waste management and remediation activities	0.2	0.0	0.1	0.1	0.0	0.0	0.3	0.1	0.2
Construction	6.6	0.2	3.7	2.0	0.1	1.1	13.4	0.4	8.1
Trade, wholesale and retail distribution	10.9	19.8	14.9	4.2	6.5	5.3	20.9	46.0	31.1
Transportation and storage	4.3	0.3	2.5	1.0	0.0	0.5	9.3	0.7	5.8
Accommodation and food service activities	0.8	1.3	1.0	0.3	0.3	0.3	1.6	3.4	2.3
Information and communication	0.6	0.2	0.4	0.1	0.0	0.0	1.4	0.6	1.1
Financial and Insurance Activities	0.9	0.7	0.8	0.1	0.1	0.1	2.0	2.0	2.0
Real estate Activities	0.2	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.3
Professional, Scientific and technical activities	0.4	0.2	0.3	0.0	0.0	0.0	0.9	0.5	0.8
Administrative and support services	1.6	0.5	1.1	0.5	0.1	0.3	3.3	1.2	2.4
Public Administration and Defence, Compulsory social security	2.3	1.1	1.7	0.4	0.1	0.3	5.0	3.0	4.2
Education	3.1	3.6	3.3	1.9	1.0	1.5	4.8	8.7	6.4
Human Health and Social Work	1.3	1.4	1.4	0.5	0.4	0.5	2.5	3.4	2.9
Arts, Entertainment and Recreation	0.2	0.1	0.1	0.0	0.1	0.0	0.4	0.1	0.3
Other service activities	1.2	1.9	1.5	0.4	0.3	0.4	2.5	5.0	3.5
Activities of household as Employers	0.9	2.8	1.8	0.2	0.6	0.4	2.0	7.1	4.0
Activities of extraterritorial organization and bodies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not Stated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 8.9 shows the percentage distribution of employed persons aged 12 years or older by major industries for 2010 and 2015. In both 2010 and 2015, 'Agriculture, forestry and fisheries' had the highest proportion of employed persons though it declined from 66.7 percent in 2010 to 58.7 percent in 2015. However, 'Trade, wholesale and retail distribution', 'Manufacturing', 'Construction', 'Mining and Quarrying' at 14.9, 4.2, 3.7, and 1.7 percent increased proportions of employed persons in 2015 than in 2010, respectively.

Figure 8.9: Percentage Distribution of Employed Persons Aged 12 Years or Older by Major Industries, Zambia, 2010 and 2015.



8.4.2. Distribution of Employed Persons by Occupation

The respondents were asked to state the kind of work they actually do in the industry they worked in. This information was then used to come up with occupation classification (UN, ISCO-08).

Table 8.8 shows the percentage distribution of employed persons aged 12 years or older by occupation, residence and sex. Skilled Agriculture and related occupations had the highest proportion at 51.8 percent, followed by service workers at 16.9 percent, elementary occupations 11.6 percent, craft and related workers at 6.4 percent and professionals at 5.2 percent.

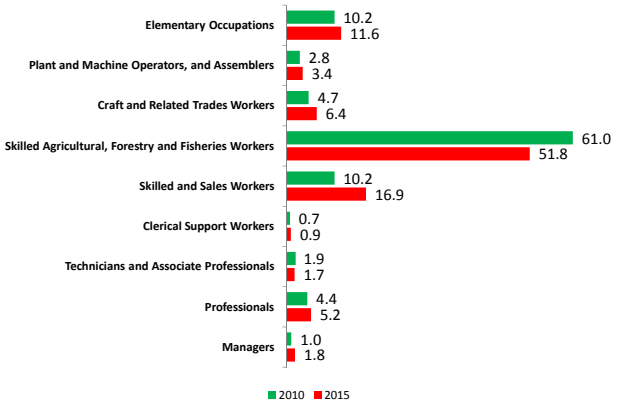
Of all employed females 56.1 percent were agricultural and related workers. 22.0 percent were Service and sales workers. 11.6 percent were elementary workers. Female professionals and managers accounted for 4.8 percent and 1.5 percent, respectively. The agricultural and related workers accounted for 48.4 percent analysed males followed by service and sales at 12.9 percent.

Table 8.8: Percentage Distribution of Employed Persons Aged 12 Years or Older by Occupation, Sex and Residence, Zambia, 2015.

Type of occupation	All Zambia			Rural			Urban		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
Total Zambia	**2,760,859**	**2,241,242**	**5,002,101**	**1,654,269**	**1,486,802**	**3,141,070**	**1,106,590**	**754,440**	**1,861,030**
All Zambia	100	100	100	100	100	100	100	100	100
Managers	2.0	1.5	1.8	0.8	0.6	0.7	3.8	3.2	3.6
Professionals	5.5	4.8	5.2	3.0	1.8	2.4	9.4	10.7	9.9
Technicians and Associate Professionals	2.2	1.2	1.7	0.3	0.3	0.3	5.0	2.8	4.1
Clerical Support Workers	0.8	1.1	0.9	0.1	0.1	0.1	1.7	3.2	2.3
Service and Sales Workers	12.9	22.0	16.9	4.2	6.2	5.2	25.8	53.1	36.9
Skilled Agricultural, Forestry and Fisheries Workers	48.4	56.1	51.8	75.3	78.6	76.9	8.2	11.7	9.6
Craft and Related Trades Workers	10.3	1.6	6.4	3.6	1.2	2.5	20.3	2.3	13.0
Plant and Machine Operators, and Assemblers	6.0	0.2	3.4	1.7	0.0	0.9	12.4	0.4	7.5
Elementary Occupations	11.7	11.6	11.6	11.0	11.2	11.1	12.8	12.3	12.6
Armed Forces	0.3	0.1	0.2	0.0	0.0	0.0	0.7	0.2	0.5
Not Stated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 8.10 shows percentage distribution of employed persons aged 12 years or older by occupation in 2010 and 2015. Generally, all percentage shares have shown marginal increments in the distributions. The only decline was in the agricultural related occupations that dropped from 61.0 percent in 2010 to 51.8 percent in 2015.

Figure 8.10: Percentage Distribution of Employed Persons Aged 12 Years or Older by Occupation, Zambia, 2010 and 2015.



8.4.3. Distribution of employed persons by employment status

Table 8.9 shows the percentage distribution of working age population by employment status, sex and Residence. The self-employed accounted for 57 percent followed by unpaid family workers at 18.0 percent and private sector employed at employed at 13.4 percent.

The rural areas shows that 64.8 percent of the employed working age population were self-employed. More males were self-employed in rural areas (73.8 percent). In urban areas more females (54.6 percent) were in self employment compared to 36.5 percent males.

The public sector (central government, local government/ council employees and parastatal/quasi-government employees) accounted for 6.6 percent of the working age population. The proportion of males working for the public sector was 7.5 percent compared to 5.5 percent females.

The findings also show that women dominated the unpaid family workers across all Residences.

Table 8.9: Percentage Distribution of Employed Persons Aged 12 Years or Older by Employment Status, Sex and Residence, Zambia, 2015.

Employment Status	All Zambia			Rural			Urban			Employed Persons or Older
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	
All Zambia	**2,760,859**	**2,241,242**	**5,002,101**	**1,654,269**	**1,486,802**	**3,141,071**	**1,106,590**	**754,440**	**1,861,030**	**5,002,101**
All Zambia	100	100	100	100	100	100	100	100	100	
Self employed	58.8	54.7	57.0	73.8	54.8	64.8	36.5	54.6	43.8	2,850,651
Central government employee	4.0	4.5	4.2	1.8	1.2	1.5	7.3	10.9	8.8	211,550
Local government/ council employee	0.8	0.3	0.6	0.4	0.1	0.2	1.3	0.7	1.1	27,838
Parastatal/ quasi-government employee	2.7	0.7	1.8	0.9	0.3	0.6	5.3	1.6	3.8	89,698
Private sector employee	18.7	6.7	13.4	6.2	1.3	3.9	37.4	17.6	29.4	667,979
Ngo employee	0.4	0.4	0.4	0.1	0.1	0.1	0.9	1.0	0.9	20,814
International organisation/ embassy employee	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.3	0.2	3,201
Employer/ partner	0.7	0.4	0.6	0.2	0.1	0.1	1.6	0.8	1.3	28,279
Household employee	0.9	1.5	1.2	0.7	0.6	0.6	1.2	3.5	2.1	59,695
Unpaid family worker	8.9	29.2	18.0	13.7	40.6	26.4	1.9	6.7	3.9	901,709
Piece worker	3.9	1.4	2.8	2.2	1.0	1.6	6.5	2.3	4.8	140,545
Other specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	141

Figure 8.11 shows percentage shares by employment status for 2010 and 2015. The results show an increase in the proportions who are self-employed from 53.7 percent in 2010 to 57 percent in 2015 respectively. The proportion of unpaid family workers declined from 23.6 percent in 2010 to 18 percent in 2015. The private sector employees increased from 10.3 percent in 2010 to 13.4 percent in 2015.

Figure 8.11: Percentage Shares by Employment Status, Zambia, 2010 and 2015.

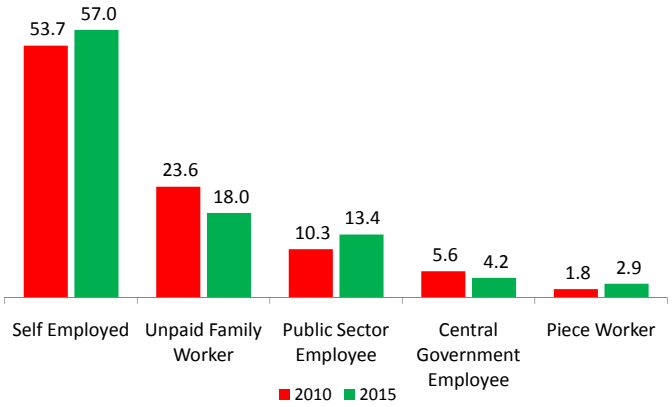


Table 8.10 shows percentage distribution of employed persons aged 12 years or older by Employment Status and Industry. Of all the employed persons whose employment status was "self-employed", 68.2 percent were in the Agriculture, Forestry and Fisheries industry while 20.8 percent were in Trade, Wholesale and Retail Distribution. The highest proportion of employed persons in the private sector were in the Trade, wholesale and Retail Distribution industry with 14.6 percent followed by Transport and Storage industry with 12.4 percent Agriculture, Forestry and Fisheries occupation accounted for the highest proportion of unpaid family workers at 94.5 percent.

Table 8.10: Percentage Distribution of Employed Persons Aged 12 Years or Older by Employment Status and Industry, Zambia, 2015.

Type of industry	Self employed	Central govt. employee	Local govt./ council employee	Parastatal/ quasi-govt. employee	Private sector employee	NGO employee	International organization/ embassy employee	Employer/ partner	Household employee	Un paid family worker	Piece worker	Other	Total	Total number of employed persons (000s)
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	5,002
Agriculture, forestry and fishing	68.2	2.2	3.0	10.2	11.5	8.7	-	15.7	20.0	94.5	22.4	0.0	58.7	2,938
Mining and quarrying	0.2	0.4	0.8	8.8	9.8	-	-	-	-	0.1	2.3	0.0	1.7	84
Manufacturing	3.8	0.3	1.0	8.8	10.9	6.1	4.7	17.9	1.6	0.4	7.9	0.0	4.2	212
Electricity, gas, steam and air conditioning supply	0.0	0.2	1.0	19.3	0.5	-	-	-	0.4	0.0	0.4	0.0	0.4	22
Water Supply Sewerage, waste management and remediation activities	0.0	0.4	3.8	1.6	0.2	-	-	-	-	-	0.1	0.0	0.1	5
Construction	3.4	0.9	4.7	3.9	5.8	1.9	-	12.3	1.0	0.1	26.9	0.0	3.7	186
Trade, wholesale and retail distribution	20.8	0.6	0.0	1.3	14.6	10.1	40.0	31.8	6.7	3.3	5.7	0.0	14.9	746
Transportation and storage	0.5	1.7	3.0	2.9	12.4	0.6	2.9	4.6	6.7	0.2	8.8	0.0	2.5	125
Accommodation and food service activities	0.4	0.2	1.2	0.2	5.3	-	-	8.7	1.3	0.2	0.5	0.0	1.0	52
Information and communication	0.1	0.3	0.0	1.2	1.8	2.0	-	0.3	-	0.1	2.0	0.0	0.4	21
Financial and Insurance Activities	0.0	0.1	1.6	5.6	4.5	6.7	-	-	0.3	0.0	0.5	0.0	0.8	40
Real estate Activities	0.2	0.0	-	-	0.0	-	-	-	-	-	0.0	0.0	0.1	7
Professional, Scientific and technical activities	0.2	1.3	0.5	1.5	0.7	1.2	1.3	3.9	0.1	-	0.1	0.0	0.3	15
Administrative and support services	0.1	0.6	2.2	7.3	5.6	4.8	-	0.7	1.7	0.1	1.6	100	1.1	55
Public Administration and Defence, Compulsory social security	0.1	23.6	53.4	7.0	1.7	2.5	6.4	-	-	-	1.5	0.0	1.7	86
Education	0.2	45.7	18.4	14.7	6.4	5.8	8.2	1.0	-	0.0	1.4	0.0	3.3	165
Human Health and Social Work	0.1	21.1	4.0	4.0	1.1	28.7	7.0	-	0.6	0.0	1.6	0.0	1.4	69
Arts, Entertainment and Recreation	0.0	0.1	0.9	-	0.5	-	-	0.9	-	0.0	0.5	0.0	0.1	7
Other service activities	1.3	0.1	0.5	1.6	2.7	19.5	16.6	2.3	3.3	0.5	5.1	0.0	1.5	77
Activities of household as Employers	0.3	0.1	-	-	4.1	-	-	-	56.3	0.5	10.5	0.0	1.8	89
Activities of extraterritorial organization and bodies	-	-	-	-	-	1.3	12.8	-	-	-	-	0.0	0.0	1
Not Stated	0.0	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0

8.5 Informal and Formal Sector Employment

Informal sector employment is employment in an unregistered enterprise whereas Formal sector employment is employment in a registered enterprise/establishment.

Table 8.11 shows the number and percentage share of employed persons whether they were in the informal or formal sector employment by sex, Residence, stratum and province. Of the 5,002,101 total employed working age population 80.3 percent were employed in the informal sector.

Analysis by sex shows that females who were employed in the informal sector had a higher proportion at 87.9 percent compared to 74.2 percent of the males.

Rural areas had a higher proportion of persons employed in the informal sector at 92.1 percent compared to 60.6 percent of employed persons in urban areas.

At province level, Eastern had the highest persons employed in the informal sector employment at 92.4 percent while Lusaka had the lowest proportion at 61.6 percent.

Table 8.12 shows percentage share of employed persons by industry and sector of employment. Agriculture, Forestry and Fisheries had the highest proportion of persons employed in the informal sector at 94.6 percent while Education had one of the lowest proportions of persons employed in the informal sector at 7.5 percent.

Table 8.11: Percentage Shares of Employed Persons by Formal and Informal Sector Employment, Sex, Residence, Stratum and Province, Zambia, 2015.

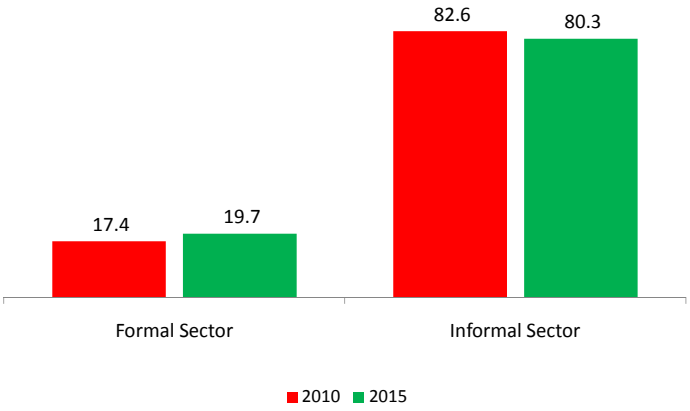
Residence, Stratum, Province and Industry	Formal Sector		Informal Sector		Number Of Employed Persons,12 Or Older
	Number	Percent	Number	Percent	
Total Zambia	**983,162**	**19.7**	**4,018,939**	**80.3**	**5,002,101**
Male	712,498	25.8	2,048,361	74.2	2,760,859
Female	270,664	12.1	1,970,577	87.9	2,241,242
Residence					
Rural	249,708	7.9	2,891,363	92.1	3,141,070
Urban	733,454	39.4	1,127,576	60.6	1,861,030
Stratum					
Small Scale	188,302	6.6	2,660,848	93.4	2,849,149
Medium Scale	8,793	6.3	130,009	93.7	138,802
Large Scale	1,849	23.1	6,138	76.9	7,987
Non-Agric	50,765	35.0	94,367	65.0	145,132
Low Cost	463,399	32.8	947,745	67.2	1,411,145
Medium Cost	136,038	53.7	117,132	46.3	253,170
High Cost	134,017	68.1	62,698	31.9	196,715
Province					
Central	74,192	15.5	404,914	84.5	479,106
Copperbelt	238,910	35.2	440,703	64.8	679,614
Eastern	52,392	7.6	637,332	92.4	689,724
Luapula	39,642	11.2	315,649	88.8	355,290
Lusaka	324,750	38.4	520,717	61.6	845,467
Muchinga	38,650	12.7	264,688	87.3	303,338
Northern	34,409	7.3	435,449	92.7	469,858
North Western	28,649	11.7	216,633	88.3	245,282
Southern	121,788	20.3	477,970	79.7	599,758
Western	29,781	8.9	304,883	91.1	334,664

Table 8.12: Percent Share of Employed Persons by Industry and Sector of Employment, Zambia, 2015.

Residence, Stratum, Province and Industry	Sector of Employment				Number Of Employed Persons,12 Years Or Older
	Formal Sector		Informal Sector		
	Number	Percent	Number	Percent	
Agriculture, forestry and fishing	159,066	5.4	2,778,862	94.6	2,937,928
Mining and quarrying	71,647	85.8	11,901	14.2	83,548
Manufacturing	78,022	36.9	133,662	63.1	211,685
Electricity, gas, steam and air conditioning supply	20,137	90.0	2,236	10.0	22,373
Water Supply Sewerage, waste management and remediation activities	4,032	81.8	895	18.2	4,927
Construction	53,165	28.5	133,116	71.5	186,281
Trade, wholesale and retail distribution	83,776	11.2	662,680	88.8	746,455
Transportation and storage	49,090	39.3	75,710	60.7	124,800
Accommodation and food service activities	33,178	63.2	19,284	36.8	52,461
Information and communication	15,669	73.0	5,800	27.0	21,469
Financial and Insurance Activities	36,632	92.2	3,090	7.8	39,722
Real estate Activities	800	11.6	6,092	88.4	6,892
Professional, Scientific and technical activities	10,735	70.1	4,570	29.9	15,305
Administrative and support services	38,494	70.1	16,448	29.9	54,942
Public Administration and Defence, Compulsory social security	86,148	100	0	0.0	86,148
Education	152,847	92.5	12,311	7.5	165,158
Human Health and Social Work	59,325	85.8	9,835	14.2	69,160
Arts, Entertainment and Recreation	3,599	55.2	2,923	44.8	6,523
Other service activities	18,679	24.4	57,953	75.6	76,632
Activities of household as Employers	7,436	8.4	81,221	91.6	88,657
Activities of extraterritorial organization and bodies	684	100	0	0.0	684

Figure 8.12 shows percentage share of employed persons 12 years or older by formal and informal sector in 2010 and 2015. The share of employment in the formal sector increased from 17.4 percent (777,000) in 2010 to 19.7 percent (983,162) in 2015.

Figure 8.12: Percentage Share Employed Persons 12 Years or Older by Formal and Informal Sector, Zambia, 2010 and 2015.



8.5.1 Informal Sector

The informal sector employment further analysed by informal agricultural and informal non-agricultural subsector.

Table 8.13 shows the proportion of persons aged 12 years or older who were employed in the informal sector by sex, Residence, stratum and province. The results show that among those employed in the informal sector, 69.1 percent were in informal agricultural subsector, while 30.9 percent were in informal non-agricultural subsector.

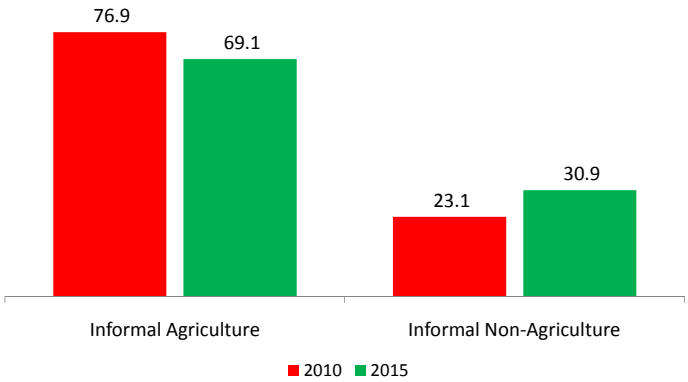
At province level, Lusaka and Copperbelt provinces had the lowest proportions of persons employed in the informal agriculture subsector at 12.0 percent and 37.8 percent respectively.

Table 8.13: Proportion of Persons Aged 12 Years or Older who were Employed in the Informal Sector by Sex, Residence, Stratum and Province, Zambia, 2015.

Residence, Stratum and Province	Informal Sector of Employment				Number Of Employed Persons 12 Years Or Older In The Informal Sector
	Informal Agriculture		Informal Non-Agricultural		
	Number Of Persons	Percent	Number Of Persons	Percent	
Total Zambia	**2,778,862**	**69.1**	**1,244,451**	**30.9**	**4,023,313**
Male	1,402,516	68.4	649,272	31.6	2,051,787
Female	1,376,346	69.8	595,179	30.2	1,971,525
Residence					
Rural	2,600,843	89.9	291,073	10.1	2,891,916
Urban	178,019	15.7	953,377	84.3	1,131,396
Stratum					
Small Scale	2,426,576	91.2	234,704	8.8	2,661,280
Medium Scale	123,195	94.8	6,815	5.2	130,009
Large Scale	5,776	94.1	362	5.9	6,138
Non-Agric	45,295	47.9	49,193	52.1	94,489
Low Cost	157,415	16.6	793,607	83.4	951,022
Medium Cost	14,154	12.1	103,093	87.9	117,247
High Cost	6,451	10.2	56,677	89.8	63,128
Province					
Central	318,519	78.6	86,705	21.4	405,224
Copperbelt	167,184	37.8	275,004	62.2	442,188
Eastern	572,937	89.9	64,414	10.1	637,351
Luapula	265,839	84.2	49,809	15.8	315,649
Lusaka	62,463	12.0	459,809	88.0	522,272
Muchinga	226,919	85.7	37,807	14.3	264,727
Northern	374,353	86.0	61,096	14.0	435,449
North Western	179,577	82.9	37,056	17.1	216,633
Southern	349,257	73.0	129,501	27.0	478,758
Western	261,813	85.8	43,249	14.2	305,062

Figure 8.13 indicates percentage share of employment by informal agricultural and informal non-agricultural subsectors for the years 2010 and 2015. The share of informal agriculture in informal sector employment has shown a decline from 76.9 percent (2,836,000) in 2010 to 69.1 percent (2,778,862) in 2015.

Figure 8.13: Percentage Shares by Informal agricultural and Informal Non-Agricultural, Zambia, 2010 and 2015.



8.6. Secondary Jobs

Table 8.14 shows the proportion of employed persons who held secondary jobs by sex and employment status in first job. Nine percent of employed persons held at least one secondary job. Furthermore, 11.7 percent of males in employment had a secondary job compared to females at 6.0 percent.

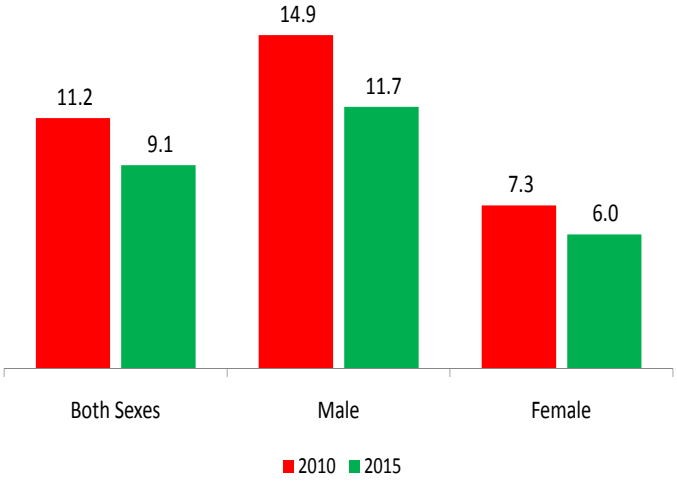
The Central government and Local government employment had proportion persons with a secondary job around 12 percent, each.

Table 8.14: Proportion of Employed Persons who held Secondary Jobs by Sex and Employment Status in First Job, Zambia, 2015.

Employment Status	Male	Female	Both Sexes	Employed Persons
Total	**11.7**	**6.0**	**9.1**	**5,002,101**
Self employed	15.4	7.3	11.9	2,850,651
Central government employee	16.6	6.8	12.0	209,461
Local government /council employee	11.5	14.1	12.1	27,838
Parastatal/ quasi- government employee	10.1	3.7	8.9	89,698
Private sector employee	5.0	2.8	4.5	667,979
Ngo employee	8.2	11.0	9.4	20,814
International organisation/ embassy employee	9.3	0.0	2.9	3,201
Employer/partner	7.5	16.0	9.8	28,279
Household employee	2.3	0.3	1.2	59,695
Unpaid family worker	2.5	4.3	3.8	901,709
Piece worker	7.9	5.1	7.3	142,634
Other	33.1	0.0	33.1	141

Figure 8.14 shows the proportion of employed persons who had secondary jobs by sex in 2010 and 2015. Results show that the proportion of employed persons with a secondary job declined by 2.1 percentage points from 11.2 percent in 2010 to 9.1 percent in 2015. Males had a higher reduction (3.2 percentage points) in the proportion of persons with a secondary job than females (1.3 percent percentage points).

Figure 8.14: Proportion of Employed Persons who had Secondary Jobs by Sex, Zambia, 2010 and 2015.



8.7. Reasons for Changing Jobs

Table 8.15 show the number and percentage shares of presently employed persons who changed jobs, by reason of changing and sex. At national level, 2 percent of the proportion of employed persons who changed their jobs cited Low salaries/wages as the most common reason for changing their job at 21.9 percent.

Analysis by sex shows that percentage share of males that changed jobs was higher than that of females at 2.8 and 1.1 percent, respectively.

Table 8.15: Percentage Shares of Presently Employed Persons who changed Jobs by Reason for Changing Jobs and Sex, Zambia, 2015.

Reason of Changing	Male		Female		Total	
	Number	Percentage Shares	Number	Percentage Shares	Number	Percentage Shares
Employed persons 12 years or Older	2,760,859		2,241,242		5,002,101	
Percentage share to the employed		2.8		1.1		2.0
Total Zambia	**77,605**	**100**	**24,670**	**100**	**102,375**	**100**
Low wage./salary	16,961	21.9	5,459	22.1	22,442	21.9
Fired/dismissed	2,104	2.7	282	1.1	2,389	2.3
Enterprise closed	2,455	3.2	1,310	5.3	3,768	3.7
Enterprise privatised	0	-	0	-	0	-
Enterprise liquidated	0	-	0	-	0	-
Retrenched/declared redundant	3,077	4.0	1,406	5.7	4,486	4.4
Got another job	8,395	10.8	741	3.0	9,147	8.9
Bankruptcy	3,878	5.0	1,535	6.2	5,418	5.3
Lack of profit	6,420	8.3	4,930	20.0	11,358	11.1
Was a temporary job	10,566	13.6	6,231	25.3	16,810	16.4
Retired	985	1.3	359	1.5	1,345	1.3
Contract expired	15,984	20.6	900	3.6	16,904	16.5
Poor working conditions	5,806	7.5	338	1.4	6,152	6.0
Others	973	1.3	1,181	4.8	2,155	2.1

8.8. Income Generating Activities among Persons presently Unemployed or Inactive

In the survey, those respondents who indicated that they did not have employment or were not economically active were asked to state whether they had performed any income generating activity. In accordance with the definition of the International Labour Organisation (ILO), any person who carries out any activity for profit or gain for him/herself or his/her family is considered economically active if this activity takes one hour or more per week. This question is necessary because some people do not consider these activities as constituting "work".

Table 8.14 shows number and percentage shares of unemployed and inactive persons who were engaged in some income generating activities by sex. The results show that 2.9 percent of the inactive or unemployed were in fact engaged in some income generating activity. Only 6.2 percent of those working age population and not currently reported as working declared any income generating activities.

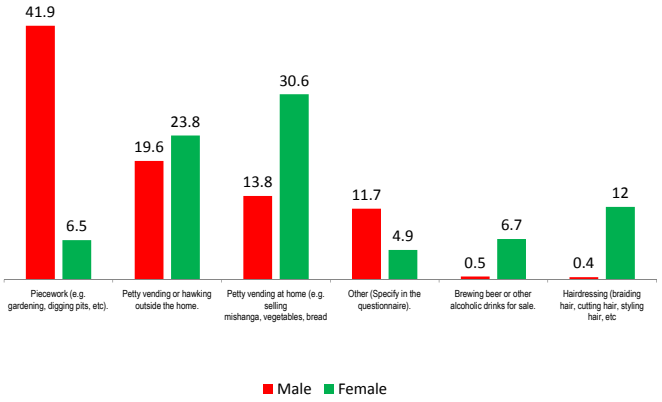
Of those engaged in income generating activities, 23.9 percent were petty vending at home, 22.1 percent were petty vending outside the home and 20.7 percent were doing piecework as their main income generating activity. The most common income generating activity for the unemployed was piecework at 35.2 percent.

Table 8.16: Number and Percentage Shares of Unemployed and Inactive Persons who were Engaged in Some Income Generating Activities by Sex, Zambia, 2015.

Income Generating Activities	Un employed				Economically inactive				Unemployed and economically inactive (total)					
	Male	Female	Both sexes		Male	Female	Both sexes		Male		Female		Both sexes	
	Number	Number	Number	Percent-age share	Number	Number	Number	Percent-age share	Number	Percent	Number	Percent	Number	Percent-age share
All Zambia	483,625	451,542	935,167		1,680,695	2,510,947	4,191,642		2,164,320		2,962,489		5,126,809	
Percentage Share	7.3	5.2	6.2		1.5	2.6	2.2		2.8		3.0		2.9	
Total number of people engaging in generating income activity	35,077	23,268	58,345	100	24,741	65,579	90,320	100	59,818	100	88,847	100	148,665	100
Petty vending at home (e.g. selling mishanga, vegetables, bread	4,786	4,137	8,922	15.3	3,467	23,093	26,560	29.4	8253	13.8	27230	30.6	35,482	23.9
Petty vending or hawking outside the home.	3,057	3,938	6,995	12.0	8,675	17,211	25,886	28.7	11732	19.6	21149	23.8	32,881	22.1
Selling knitted items.	0	756	756	1.3	0	1,003	1,003	1.1	0	0.0	1759	2.0	1,759	1.2
Selling own-sewed clothes	0	0	0	0.0	0	0	0	0.0	0	0.0	0	0.0	0	0.0
Baking fritters/scones/cakes for sale.	0	1,871	1,871	3.2	0	5,240	5,240	5.8	0	0.0	7111	8.0	7,110	4.8
Brewing local (non-alcoholic) drinks, e.g. munkoyo for sale.	0	974	974	1.7	0	2,302	2,302	2.5	0	0.0	3276	3.7	3,276	2.2
Brewing beer or other alcoholic drinks for sale.	149	1,052	1,201	2.1	155	4,903	5,058	5.6	304	0.5	5955	6.7	6,259	4.2
Carpentry.	1,162	0	1,162	2.0	0	0	0	0.0	1162	1.9	0	0.0	1,162	0.8
Making handicrafts, e.g. clay pots, doormats, decorations, e	426	45	471	0.8	280	1,264	1,544	1.7	706	1.2	1309	1.5	2,015	1.4
Making reed mats or baskets for sale.	2,321	0	2,321	4.0	583	134	718	0.8	2904	4.9	134	0.2	3,039	2.0
Hairdressing (braiding hair, cutting hair, styling hair, etc	259	6,873	7,132	12.2	0	3,761	3,761	4.2	259	0.4	10634	12.0	10,893	7.3
Piecework (e.g. gardening, digging pits, etc).	17,548	2,994	20,543	35.2	7,499	2,769	10,268	11.4	25047	41.9	5763	6.5	30,811	20.7
Repairing and painting houses, etc.	2,195	0	2,195	3.8	250	151	402	0.4	2445	4.1	151	0.2	2,596	1.7
Other (Specify in the questionnaire).	3,175	629	3,804	6.5	3,831	3,748	7,579	8.4	7006	11.7	4377	4.9	11,383	7.7

Figure 8.16 shows common income generating activities by sex. Piecework 41.9 percent and petty vending outside home 19.6 percent were the most common income generating activities among males while petty vending at home (30.6 percent) and outside (23.8 percent) and hair dressing (12 percent) were the most common income generating activities for females.

Figure 8.16: Common Income Generating Activity by Sex, Zambia, 2015.



CHAPTER 9
HOUSEHOLD FOOD AND LIVESTOCK PRODUCTION

9.1. Introduction

The 2015 Living Conditions Monitoring Survey (LCMS) collected data on agricultural activities such as growing of food crops, rearing of livestock and raising of poultry essentially because these activities contribute to the welfare of households. This chapter presents results on household food production relating to the 2013/2014 agricultural season.

The data was collected and analysed on the following:

- *Households engagement in agricultural activities*
- *Food Crop Production including maize, groundnuts, mixed beans, soya beans, sweet potatoes, Irish potatoes and other crops.*
- *Livestock ownership (cattle, goats, pigs, sheep), and*
- *Poultry ownership (chicken, ducks/geese, guinea fowl, other)*

9.2. Agricultural Households

An agricultural household was defined as one where at least one of its members was engaged in any of the following agricultural activities: growing of crops, livestock/poultry ownership, fish farming or a combination of any of these.

Table 9.1 shows the percentage distribution of households engaged in agricultural activities by province and residence, during the 2013/2014 agricultural season.

Results show that in the 2013/2014 agriculture season, the number of agricultural households was 1,769,020.

Analysis by Residence shows that 89.4 percent of households in rural areas were engaged in agriculture activities while 17.9 percent of households in urban areas were engaged in agriculture activities.

Analysis by province shows that Eastern Province had the highest number of agricultural household with 307,640 representing 89.9 percent, while Lusaka Province had the lowest proportion of households engaged in agriculture activities at 14 percent.

Table 9.1 Percentage of Households Engaged in Agricultural Activities by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

Province and Residence		All households (000s)	Agricultural Households		Non-Agricultural Households	
			Number (000s)	Percent	Number (000s)	Percent
All Zambia	Total	3,015	1,769	58.7	1,246	41.3
	Rural	1,718	1,536	89.4	182	10.6
	Urban	1,297	233	17.9	1,064	82.1
Central	Total	292	214	73.1	78	26.9
	Rural	215	194	90.5	20	9.5
	Urban	77	19	24.8	58	75.2
Copperbelt	Total	451	145	32.3	305	67.7
	Rural	82	71	87.2	10	12.8
	Urban	369	74	20.1	295	79.9
Eastern	Total	342	308	89.9	35	10.1
	Rural	300	290	96.9	9	3.1
	Urban	42	17	40.7	25	59.3
Luapula	Total	208	152	73.1	56	26.9
	Rural	168	132	78.6	36	21.4
	Urban	40	20	50.1	20	49.9
Lusaka	Total	592	83	14.0	509	86.0
	Rural	84	57	67.7	27	32.3
	Urban	508	26	5.1	482	94.9
Muchinga	Total	175	137	78.2	38	21.8
	Rural	132	123	92.7	10	7.3
	Urban	43	14	33.2	28	66.8
Northern	Total	254	207	81.7	46	18.3
	Rural	206	187	90.8	19	9.2
	Urban	48	20	42.5	27	57.5
North Western	Total	164	126	76.7	38	23.3
	Rural	119	109	91.3	10	8.7
	Urban	45	17	37.7	28	62.3
Southern	Total	338	230	68.0	108	32.0
	Rural	237	213	89.9	24	10.1
	Urban	101	17	16.8	84	83.2
Western	Total	199	168	84.3	31	15.7
	Rural	175	160	91.1	16	8.9
	Urban	24	8	34.2	16	65.8

9.3. Food Crop Production

9.3.1. *Maize*

Table 9.2 shows the percentage distribution of agricultural households that produced maize of all types (hybrid and local) and the total estimated quantity produced, by province and residence during the 2013/2014 agricultural season.

At national level 83.4 percent of agricultural households were engaged in Maize production. The total quantity of maize produced in 2013/2014 agriculture season was estimated at 3.8 million metric tons (mt).Of those engaged in maize production, 46.4 percent grew Local maize and 44.5 grew hybrid maize.

Analysis by province shows that Eastern Province had the highest percentage of households growing maize at 95.3 percent, while Luapula Province had the lowest at 56 percent in the 2013/2014 agriculture season. Central Province had the largest share of maize production at 21.3 percent (810,000 mt) while Luapula Province had the smallest at 2.6 percent (100,000 mt).

Table 9.2: Percentage Distribution of Agricultural Households Producing Maize and Quantity Produced by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

Residence and Province	Agriculture Households ('000s)	Percentage Growing Maize (All Types)	Maize Growing Households	Percentage Distribution	Percentage Growing Local Maize	Percentage Growing Hybrid Maize	Maize Production (Mt '000s)
Total Zambia	**1,769**	**83.4**	**1,476**	**100.0**	**46.4**	**44.5**	**3,804**
Rural	1,536	83.8	187	87.3	48.0	43.7	3,366
Urban	233	80.1	129	12.7	35.9	49.6	438
Province							
Central	214	90.3	193	13.1	31.9	12.8	810
Copperbelt	145	90.4	131	8.9	39.2	25.8	293
Eastern	308	95.3	294	19.9	63.2	24.2	786
Luapula	152	55.8	85	5.7	39.2	55.9	100
Lusaka	83	90.9	75	5.1	51.2	37.2	206
Muchinga	137	81.8	112	7.6	29.9	95.7	279
Northern	207	71.9	149	10.1	34.5	11.1	389
North Western	126	80.4	101	6.9	56.4	24.5	143
Southern	230	86.7	199	13.5	43.7	56.9	696
Western	168	80.7	136	9.2	68.5	13.7	103

9.3.2. *Cassava, Millet, Sorghum and Rice*

Table 9.3 shows the percentage of agricultural households producing cassava (flour), Millet (threshed), sorghum and rice (paddy), as well as the estimated quantities produced in 2013/2014 agricultural season, by province and rural/urban.

Cassava

At national level, the proportion of households engaged in cassava growing was 22.1 percent.

At provincial level, Luapula, Muchinga, Northern, North-Western and Western had higher percentages of households growing cassava than the rest of the provinces. Luapula Province (70.9 percent) had the highest percentage of households growing cassava while Southern Province (0.1 percent) had the lowest percentage of households.

In terms of production at provincial level, Northern Province had the highest production of 845, 943 (90kg bags) while Southern Province had the lowest production of 370 (90kg bags).

Table 9.3: Percentage Share of Agricultural Households Producing Cassava and Quantities Produced by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

Residence and Province	Agricultural households (000s)	Cassava (flour)		
		Percentage growing crop	Production (MT 000s)	Production 90kg bags (000s)
Total	**1,769**	**22.1**	**278**	**3,176**
Residence				
Rural	1,536	23.9	262	2,992
Urban	233	10.1	16	184
Province				
Central	214	5.9	12	134
Copperbelt	145	3.8	2	18
Eastern	308	1.7	3	30
Luapula	152	70.9	55	631
Lusaka	83	0.9	2	24
Muchinga	137	24.9	31	349
Northern	207	48.9	74	846
North Western	126	54.2	71	810
Southern	230	0.1	0	0
Western	168	32.7	29	334

Millet

At national level, the proportion of agricultural households growing millet in 2013/2014 Agricultural season was 4.6 percent.

Analysed by province, Muchinga had the highest number of households growing millet at 19.3 percent in 2013/2014 agriculture season while Lusaka Province had no households growing millet.

Northern Province had the highest production of millet of 144, 906 (90kg bags), followed by Muchinga Province with production of 118, 892 (90kg bags). Eastern Province had lowest millet production of 1,120 (90kg bags) in 2013/2014 agriculture season.

Table 9.4: Percentage Share of Agricultural Households Producing Millet and Quantities Produced by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

Residence and Province	Agricultural households (000s)	Millet (threshed)		
		Percentage growing crop	Production (MT 000s)	Production 90kg bags (000s)
Total	**1,769**	**4.6**	**34**	**339**
Residence				
Rural	1,536	5.2	33	328
Urban	233	1.1	1	11
Province				
Central	214	2.3	1	12
Copperbelt	145	0.3	0	5
Eastern	308	0.3	0	1
Luapula	152	1.6	1	12
Lusaka	83	-	-	-
Muchinga	137	19.3	12	119
Northern	207	15.7	14	145
North Western	126	0.4	1	6
Southern	230	1.8	1	10
Western	168	5.9	3	30

Sorghum

At national level, the proportion of agricultural households growing Sorghum in 2013/2014 agricultural season was 1.4 percent.

At provincial level, Western had the highest number of households growing sorghum at 3.7 percent while Copperbelt had the lowest proportion of households growing sorghum at 0.2 percent.

In production terms, at national level, a total of 149,000 (50kg bags) were produced in the 2013/2014 agricultural season.

Analysed by province, Southern had the highest production of sorghum at 77,770 (50kg bags) while Copperbelt had the lowest production of 828 (50kg bags) in 2013/2014 agricultural season.

Table 9.5: Percentage Share of Agricultural Households Producing Sorghum and Quantities produced by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

Residence and Province	Agricultural households (000s)	Sorghum		
		Percentage growing crop	Production (MT 000s)	Production 50kg bags (000s)
Total Zambia	**1,769**	**1.4**	**7**	**149**
Residence				
Rural	1,536	1.5	6	137
Urban	233	0.5	1	12
Province				
Central	214	0.5	0	8
Copperbelt	145	0.2	0	1
Eastern	308	0.3	0	3
Luapula	152	0.8	0	1
Lusaka	83	0	-	-
Muchinga	137	2.7	1	26
Northern	207	1.4	0	6
North Western	126	0.4	0	8
Southern	230	3.2	4	78
Western	168	3.7	1	18

Rice

At national level, the proportion of agricultural households growing rice was 3.5 percent.

At provincial level, Western had the highest number of households growing rice at 16.6 percent in the 2013/2014 agricultural season. The results show that Southern, Central and Copperbelt provinces had no agricultural households that were growing rice.

At national level, 423, 925 (90kg bags) of rice were produced in the 2013/2014 agricultural season.

At provincial level, Western had the highest production of rice at 224,354 (90kg bags) in the 2013/2014 agricultural season while North-Western Province reported the lowest production of 1,000 (90kg bags).

Table 9.6: Percentage Share of Agricultural Households Producing Rice and Quantities produced by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

Residence and Province	Agricultural households (000s)	Rice (Paddy)		
		Percentage growing crop	Production (MT 000s)	Production 90kg bags (000s)
Total Zambia	**1,769**	**3.5**	**43**	**424**
Residence				
Rural	1,536	3.8	40	394
Urban	233	1.4	3	30
Province				
Central	214	0	0	0
Copperbelt	145	0	-	-
Eastern	308	1.1	1	9
Luapula	152	3.9	4	39
Lusaka	83	0.3	0	2
Muchinga	137	10.2	11	105
Northern	207	4.5	4	44
North Western	126	0.2	0	1
Southern	230	0	-	-
Western	168	16.6	23	224

Mixed Beans

At national level, the proportion of agricultural households producing mixed beans was 11.2 percent (198, 804 households).

At provincial level, Northern had the highest proportion of households growing mixed beans at 33.7 percent while Lusaka had the lowest proportion of households producing mixed beans at 2.3 percent.

In production terms, at national level, a total of 847, 855 (90kg bags) were produced in the 2013/2014 agricultural season.

At provincial level, Northern had the highest production of mixed beans at 529, 302 (90kg bags) while Western at 1, 788 (90kg bags) had the lowest production.

Table 9.7: Percentage Share of Agricultural Households Producing Mixed Beans and Quantities produced, by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

Residence and Province	Mixed beans			
	Agricultural households (000s)	Percentage growing crop	Production 90kg bags(000s)	Production (MT 000s)
Total	**1,769**	**11.2**	**848**	**92**
Residence				
Rural	1,536	12	825	89
Urban	233	6	23	2
Province				
Central	214	6.3	19	2
Copperbelt	145	8.2	18	2
Eastern	308	4.7	24	3
Luapula	152	10.1	33	4
Lusaka	83	2.3	2	0
Muchinga	137	24.3	150	16
Northern	207	33.7	529	57
North Western	126	20.1	54	6
Southern	230	4.6	17	2
Western	168	1.4	2	0

Soya Beans

At national level, the proportion of agricultural households growing soya beans was at 4.5 percent.

Analysed by province, Eastern had the highest proportion of households growing soya beans at 11.5 percent while Western had the lowest proportion of households growing soya beans at 0.2 percent in 2013/2014 agricultural season.

At national level, a total number of 648, 390 (90kg bags) of Soya beans were produced in the 2013/2014 agricultural season.

At provincial level, Central with 289, 245 (90kg bags) had the highest production of soya beans in 2013/2014 agricultural season while Western with 1,997 (90kg bags) had the lowest production.

Table 9.8: Percentage Share of Agricultural Households Producing Soya Beans and Quantities Produced, by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

Residence and Province	Soya Beans			
	Agricultural households (000s)	Percentage growing crop	Production 90kg bags (000s)	Production (MT 000s)
Total	**1,769**	**4.5**	**648**	**53**
Residence				
Rural	1,536	4.9	606	49
Urban	233	2.3	42	3
Province				
Central	214	13.1	289	24
Copperbelt	145	2	29	2
Eastern	308	11.5	172	14
Luapula	152	0.8	5	0
Lusaka	83	1.1	101	8
Muchinga	137	1.4	6	0
Northern	207	3.9	22	2
North Western	126	0.3	5	0
Southern	230	0.5	17	1
Western	168	0.2	2	0

Sweet Potatoes:

At national level, the proportion of agricultural households growing sweet potatoes was at 12.8 percent.

Analysis by province, Southern had the highest proportion of households growing sweet potatoes at 18 percent while Lusaka had the lowest proportion of households growing sweet potatoes at 3.5 percent.

At national level, a total number of 3,966,530 (25kg bags) of sweet potatoes were produced in the 2013/2014 agricultural season.

At provincial level, Northern had the highest production of sweet potatoes in 2013/2014 agricultural season with 891,346 (25kg bags) while Lusaka with 62, 706 (25kg bags) had the lowest production.

Table 9.10: Percentage Share of Agricultural Households Producing Sweet Potatoes and Quantities produced, by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

Residence and Province	Sweet potatoes			
	Agricultural households (000s)	Percentage growing crop	Production 25kg bags (000s)	Production (MT 000s)
Total Zambia	**1,769**	**12.8**	**3,966**	**137**
Residence				
Rural	1,536	13.5	3,707	128
Urban	233	8.2	259	9
Province				
Central	214	9.1	466	16
Copperbelt	145	16.3	506	17
Eastern	308	6.8	438	15
Luapula	152	20	318	11
Lusaka	83	3.5	63	2
Muchinga	137	11.2	431	15
Northern	207	17.3	354	12
North Western	126	22.5	343	12
Southern	230	18	891	31
Western	168	4.8	157	5

Irish Potatoes

At national level, the proportion of agricultural households growing Irish potatoes was at 0.7 percent.

Analysed by province, North-western had the highest proportion of households growing Irish potatoes at 2.2 percent. Results show that Western and Copperbelt provinces had no agricultural households that reported growing Irish potatoes.

At national level, a total number of 1, 080, 887 (10kg bags) of Irish potatoes were produced in the 2013/2014 agricultural season.

At provincial level, Southern had the highest production of Irish potatoes in 2013/2014 Agricultural Season with 427,413 (10kg bags) while Copperbelt had the lowest production with 1,000(10kg bags).

Table 9.11: Percentage share of Agricultural Households Producing Irish Potatoes and Quantities Produced, by Province and REsidence, 2013/2014 agricultural season, Zambia, 2015.

	Irish potatoes			
	Agricultural households (000s)	Percentage growing crop	Production 10kg bags (000s)	Production (MT 000s)
Total Zambia	**1,769**	**0.7**	**1,081**	**11**
Residence				
Rural	1,536	0.8	1,046	10
Urban	233	0.2	35	0
Province				
Central	214	0.4	10	0
Copperbelt	145	0	1	0
Eastern	308	1.4	371	4
Luapula	152	0.2	75	1
Lusaka	83	0.2	8	0
Muchinga	137	0.4	45	0
Northern	207	0.3	17	0
North Western	126	2.2	127	1
Southern	230	1.6	427	4
Western	168	0	-	-

Groundnuts

At national level, the proportion of agricultural households growing Groundnuts was at 31.3 percent.

Analysis by province, Eastern had the highest proportion of households growing groundnuts at 53 percent while Lusaka with the lowest proportion of households at 12.9 percent.

At national level, a total number of 1, 986,926 (90kg bags) of groundnuts were produced in the 2013/2014 agricultural season.

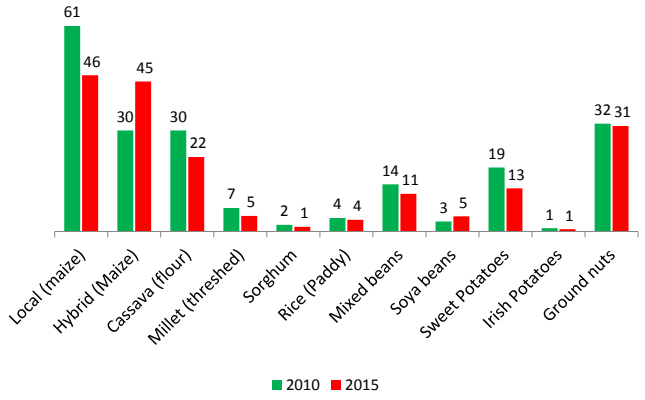
At provincial level, Eastern Province had the highest production of groundnuts in 2013/2014 agricultural season with 613, 904 (90kg bags) whereas Lusaka had the lowest production with 24, 300 (90 kg bags)

Table 9.12: Percentage Share of Agricultural Households Producing Groundnuts and Quantities Produced, by Province and Residence, 2013/2014 Agricultural Season, Zambia, 2015.

	Groundnuts			
	Agricultural households (000s)	Percentage growing crop	Production 90kg bags (000s)	Production (MT 000s)
Total	**1,769**	**31.3**	**1,987**	**174**
Residence				
Rural	1,536	32.8	1,856	162
Urban	233	21.4	131	11
Province				
Central	214	22.6	338	30
Copperbelt	145	30.7	101	9
Eastern	308	53.2	614	54
Luapula	152	30	141	12
Lusaka	83	12.9	24	2
Muchinga	137	31.5	147	13
Northern	207	40.9	187	16
North Western	126	17.3	99	9
Southern	230	31.2	275	24
Western	168	11.6	61	5

Figure 9.1 shows proportion of agricultural households producing each crop, 2008/2009 Agricultural Season and 2013/2014 Agricultural Season. Overall, the proportion of households producing each type of crop in 2010 and 2015 decreased except for the proportion of households producing hybrid maize.

Figure 9.1: Proportion of Agricultural Households Producing each Crop, 2008/2009 and 2013/2014 Agricultural Seasons, Zambia, 2015.



9.4. Livestock and Poultry Ownership

9.4.1. Livestock Ownership (cattle, goats, pigs, sheep)

Table 9.5 shows the proportion of households owning various types of livestock by province and Residence.

At national level, the total number of agricultural households owning livestock was 608,339. Eastern Province had the highest number of households owning livestock (169,539) followed by Southern Province (140,477). The proportion of households owning cattle was 55.1 percent, goats 54.6 percent, pigs 30.9 percent and sheep 1.6 percent.

Analysis by province shows that Western Province had the highest proportion of households owning cattle at 84.4 percent. Luapula Province had the highest proportion of households owning goats at 78.1 percent. Eastern Province had the highest proportion of households owning pigs at 53.4 percent.

Table 9.5: Proportion of Households Owning Various Types of Livestock by Province and Residence, Zambia, 2015.

Residence and Province	Agricultural Households	Own Livestock	Percent	Own Cattle	Own Goats	Own Pigs	Own Sheep
Total Zambia	**1,769,020**	**608,339**	**34.4**	**55.1**	**54.6**	**30.9**	**1.6**
Rural	1,536,242	577,826	37.6	54.9	55.2	31.3	1.5
Urban	232,779	30,513	13.1	59.3	43.7	22.1	4.1
Province							
Central	213,630	84,798	39.7	64.5	68.6	11.1	0.5
Copperbelt	145,487	16,824	11.6	37.0	76.3	26.9	2.2
Eastern	307,640	169,539	55.1	58.7	38.2	53.4	1.7
Luapula	151,736	27,082	17.8	4.0	78.1	25.8	1.0
Lusaka	82,677	17,482	21.1	44.7	56.3	19.8	1.7
Muchinga	136,669	40,587	29.7	22.5	68.8	39.7	2.6
Northern	207,440	46,004	22.2	21.2	67.7	36.7	0.1
North Western	125,858	19,853	15.8	25.7	72.7	14.9	4.8
Southern	230,008	140,477	61.1	73.6	62.1	20.2	2.3
Western	167,876	45,692	27.2	84.4	10.3	18.7	0.0

Table 9.6 shows the number and percentage distribution of various types of livestock by Province.

At national level, the number of cattle owned by agricultural households was 2, 855,822.

Analysis by province shows that Southern had the highest number of cattle owned at 1,246,233 while Luapula had the lowest number of cattle owned at 4, 021.

At national level, the number of sheep owned by households was 103, 053.

At provincial level, Southern had the highest number of sheep owned at 48, 034 while no households in Northern Province were reported to be owning sheep.

At national level, the number of goats owned by households was 2, 408,052. At provincial level, Southern had the highest number of goats owned by households at 830, 687 while western had the lowest at 21, 394.

At national level, the number of pigs owned by households was 1, 131,721. At provincial level, Eastern owned the highest number of pigs at 498, 610 while Luapula owned the lowest number of pigs at 20, 778.

Table 9.6: Number and Percentage Distribution of Livestock by Type, Province and Residence, Zambia, 2015.

Residence and Province	Cattle		Goats		Pigs		Sheep	
	Number ('000)	Percent	Number ('000s)	Percent	Number ('000)	Percent	Number ('000s)	Percent
Total Zambia	**2,856**	**100**	**2,408**	**100**	**1,132**	**100**	**103**	**100**
Rural	2,616	92	2,230	93	889	79	74	72
Urban	240	8	178	7	243	21	29	28
Province								
Central	441	15	513	21	194	17	4	3
Copperbelt	48	2	115	5	63	6	8	8
Eastern	542	19	350	15	499	44	14	14
Luapula	4	0	81	3	21	2	2	2
Lusaka	70	2	105	4	41	4	16	15
Muchinga	63	2	153	6	54	5	6	6
Northern	53	2	157	7	70	6	0	0
North Western	27	1	83	3	22	2	5	5
Southern	1,246	44	831	34	119	11	48	47
Western	362	13	21	1	49	4	-	0

9.4.2. Poultry Ownership (Chicken, Ducks/Geese, Guinea Fowl, Other)

Table 9.7 shows the proportion of households owning poultry by type, province and residence. At national level, the number of agricultural households owning poultry was 838,829.

Analysis by residence, results show that rural areas had the highest number of households owning poultry at 778,087 while urban areas, had the lowest number of households that owned poultry at 60,741.

At provincial level, Southern had the highest number of households owning poultry at 162,650, followed by Eastern at 162,300. Lusaka had the lowest number of households that owned poultry at 30,341.

Further, of those households owning poultry, results show that 96.8 percent were owning chickens, 8.7 percent owned ducks and 6.2 percent owned guinea fowls.

Analysed by province, the proportion of households owning chickens in each province was above 90 percent.

Table 9.7: Proportion of Households Owning Poultry by Type, Province and Residence, Zambia, 2015.

Residence and Province	Agricultural Households	Own Poultry	Percent	Own Chicken	Own Ducks	Own Guinea Fowls	Own Other Poultry
All Zambia	**1,769,020**	**838,829**	**100**	**96.8**	**8.7**	**6.2**	**5.5**
Rural	1,536,242	778,087	92.8	97.2	8.6	6.4	5.4
Urban	232,779	60,741	7.2	91.8	10.0	3.9	6.2
Province							
Central	213,630	129,659	15.5	97.7	9.5	5.9	6.0
Copperbelt	145,487	47,475	5.7	93.7	8.7	2.8	7.4
Eastern	307,640	162,300	19.3	96.6	10.1	3.8	6.7
Luapula	151,736	48,891	5.8	93.4	9.7	.1	2.5
Lusaka	82,677	30,341	3.6	95.8	11.3	5.8	2.8
Muchinga	136,669	72,174	8.6	97.9	6.8	2.5	2.4
Northern	207,440	88,173	10.5	97.0	5.4	.5	.5
North Western	125,858	39,918	4.8	98.1	7.4	1.0	.6
Southern	230,008	162,650	19.4	97.1	9.2	19.6	11.5
Western	167,876	57,247	6.8	98.0	7.3	.8	.9

Table 9.8 shows the number and percentage distribution of various types of poultry by Province. At national level, the total number of chickens owned by the households was 15, 720,000.

Of these, Central Province accounted for 23 percent followed by Southern Province at 21 percent. North Western Province had lowest percentage of the total at 3 percent.

Table 9.8: Number and Percentage Distribution of Poultry by Type, Province and Residence, Zambia, 2015.

Province and Residence	Chickens		Ducks & Geese		Guinea Fowls		Other Poultry (Turkeys, Rabbits, Pigeons, Quails)	
	Number ('000s)	Percent	Number ('000)	Percent	Number ('000s)	Percent	Number ('000s)	Percent
All Zambia	**15,720**	**100**	**586**	**100**	**393**	**100**	**855**	**100**
Rural	11,868	75	502	86	372	95	666	78
Urban	3,851	25	84	14	21	5	188	22
Province								
Central	3,608	23	71	12	34	9	162	19
Copperbelt	1,094	7	28	5	8	2	28	3
Eastern	1,927	12	158	27	27	7	177	21
Luapula	564	4	25	4	0	0	4	0
Lusaka	2,065	13	67	11	17	4	25	3
Muchinga	1,128	7	33	6	4	1	35	4
Northern	1,032	7	38	6	4	1	4	0
North Western	422	3	24	4	6	2	138	16
Southern	3,309	21	121	21	293	74	270	32
Western	571	4	22	4	1	0	12	1

CHAPTER 10
HOUSEHOLD INCOME AND ASSETS

10.1. Introduction

Household income and assets play a vital role in the analysis of living conditions of households. Income and assets contribute to poverty alleviation as well as to the wellbeing of the population. Income is used as a measure of welfare because the consumption of goods and services is dependent on the sum of income available to a household at any given time. Households generally depend on income to meet their day to day expenditures, such as on food, housing, clothing, education, health, etc. A household's access to durable consumer goods is a good indicator of its social economic status. Ownership of assets improves the household's wellbeing.

The 2015 survey collected data on income for persons aged five years or older.

The following income sources were included:

- Income from agriculture production
- Income from non-agriculture business
- Income in kind
- Rental income from properties owned
- Income from remittances
- Income from pensions, grants and interests
- Income from interest or dividends on shares, bonds, securities, treasury bills, etc.
- Any other income that accrued to a person

Total household income was calculated by summing up all incomes from all sources of all income-earning members of the household. Data on the consumption of own production was also collected and imputed to cash. Household income presented in this chapter is based on the estimated 2,944,477 households in Zambia that reported non-zero income.

Data on household asset ownership was also collected. Household members were asked whether or not they owned any assets that were in working condition at the time of the survey. They were also asked when they first acquired the particular asset and its value at the time of acquisition as well as its present value.

10.2. Concepts and Definitions

The following concepts and definitions constituted the guiding principles for collecting, processing and analysing the data on household income.

Household Monthly Income: This is the monthly earnings of a household from engaging in economic activities such as the production of goods and services and the ownership of assets. Household monthly income is the sum of all incomes of household members.

Per Capita Mean Monthly Income: This denotes the average monthly income of a household member, calculated as the quotient of total household monthly income and the total number of persons in the household.

Household Mean Monthly Income: This is the average monthly income of a household and is calculated as the quotient of the total monthly income of all households and the total number of households in Zambia. Related to the mean monthly income is the modal income representing the income received by the majority of households.

Per Capita Income Deciles: These are the tabular representation of income distribution of a population. Per capita income deciles divide an income distribution arranged in ascending or descending order into 10 equal parts or deciles. For each decile, the percentage of the total income is calculated as well as the percentage of the total population receiving the total income in the deciles. The difference between the two percentages varies directly with inequality in income distribution.

Lorenz Curve: A Lorenz curve is a graphical representation of income distribution of a population. It shows the different proportions of total income going to different proportions of the population. The curve depicts income inequalities by the extent to which it diverges from an equi-income distribution line. The equi-income distribution line is a straight line joining the ends of the Lorenz curve and represents total equality in income distribution. Each point on the equi-income distribution line is such that a given percentage of the population receives an equal share of total income. This implies that 10 percent of the population receives 10 per cent of the total income, 90 percent of the population receives 90 percent of the total income, and so on.

Gini Coefficient: This measures household income distribution using an index of inequality. The coefficient gives the numerical degree to which the Lorenz curve diverges from the equi-income distribution line. In Figure 10.1, the straight line 0C is the equi-income distribution line, while the curve 0C is the Lorenz curve. The Gini coefficient is the ratio of the area A to the sum of areas A and B; hence the Gini coefficient is given by:

$$G = \frac{A}{(A + B)}$$

The Gini coefficient always ranges from 0 to 1. A coefficient of 0 represents total equality in income distribution, while a coefficient of 1 represents total inequality. A coefficient such as 0.66 can be considered to represent a high incidence of inequality in income distribution, while a coefficient such as 0.15 represents a more equitable income distribution.

10.3. Distribution of Income

Table 10.1 shows the distribution of household's monthly income in kwacha by Residence, stratum and province. The results show that the average monthly income for Zambian households was K1, 801.30. Monthly average income for households in rural areas was K810 while that of households in urban areas was K3, 152.40.

Figure 10.1: Lorenz Curve, Zambia, 2015.

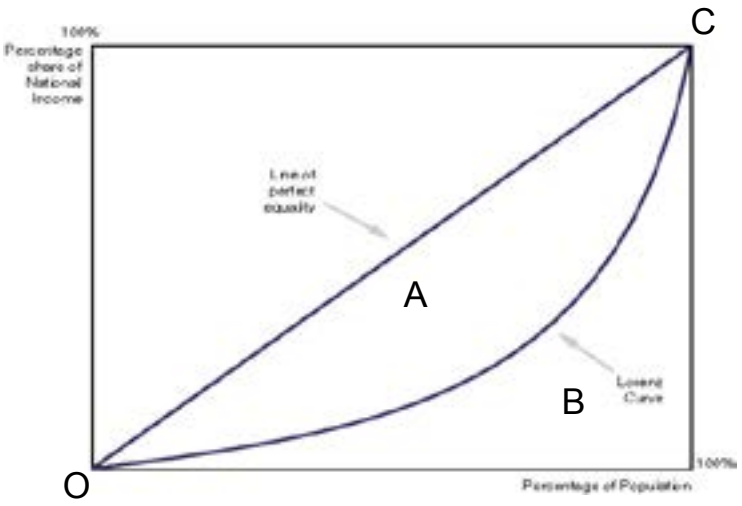


Table 10.1: Percentage Distribution of Household Income by Geographical Location, Zambia, 2015.

Residence/ Stratum and Provoivence	Household income											
	Less than 50	50 - 150	>150 - 300	>300 - 450	>450 - 600	>600 - 800	>800 - 1,000	>1000 - 1200	>1200	Total	Average Income	Number of Households
All Zambia	**3.8**	**8.8**	**13.1**	**10.4**	**8.9**	**8.9**	**7**	**4.9**	**34.4**	**100**	**1,801.30**	**2,944,477**
Residence												
Rural	4	12.8	19.6	14.8	11.2	10.1	7.2	4.8	15.5	100	810	1,698,372
Urban	3.4	3.4	4.2	4.3	5.7	7.1	6.6	5	60.2	100	3,152.40	1,246,105
Stratum												
Small Scale	4.1	13.3	20.6	15.5	11.6	10.4	7.3	4.5	12.6	100	693.1	1,526,604
Medium Scale	1.5	4.6	5.9	8.8	6.9	6.6	6.5	6	53.2	100	1,862.20	56,550
Large Scale	0.9	3.4	2	8	6	8.3	0.6	3.8	67.1	100	10,751.90	2,712
Non-Agric	4.3	10.4	13.6	8.2	7.4	7.8	6	8.4	34.1	100	1,627.90	112,507
Low Cost	3.7	3.8	4.9	5.1	6.7	8.5	7.7	5.8	53.8	100	2,180.50	958,005
Medium Cost	3.1	2.4	2.3	2.3	2.4	3.2	3.6	2.6	78	100	5,320.70	159,244
High Cost	1.6	1.9	1.9	1.2	2	1.6	2.5	2.2	85.1	100	7,698.50	128,855
Province												
Central	3.7	8.2	12.2	10.2	9.4	11	7	5.7	32.6	100	1,530.80	288,228
Copperbelt	3.1	4.9	8.1	6	5.2	5.5	6.8	6	54.3	100	3,228.00	433,234
Eastern	3	9.4	17.2	14.7	13.3	10.7	8.6	4.7	18.4	100	1,015.40	339,686
Luapula	7.6	17.9	19.2	14.4	8.9	7.1	5.7	4.8	14.4	100	836.1	199,765
Lusaka	1.5	1.8	1.9	3	7.1	9.1	8	5.2	62.5	100	2,892.90	579,629
Muchinga	4.7	11.9	19.3	14.9	10.3	9.2	6.7	3	20.1	100	1,201.00	172,081
Northern	5.3	14.6	20	15.5	12.2	10.1	4.2	4	14.1	100	895.9	249,746
North Western	2	5.7	16.2	11.9	9.6	13.4	9.2	5	27.1	100	1,412.50	163,576
Southern	6.8	12.8	14.2	11.5	7.2	7.9	6.4	4.7	28.5	100	1,369.60	321,187
Western	3.2	15	26.5	16.9	10.4	7.1	5.2	3.4	12.4	100	882.2	197,345

Figure 10.2 shows the average income earned by households by rural stratum in 2015. Large Scale Agricultural households had the highest level of average monthly income at K 10,751.90 followed by Medium Scale at K1,862.20. Small Scale agricultural households had the lowest average income at K693.10.

Figure 10.2: Average Income earned by Households by Rural Stratum, Zambia, 2015.

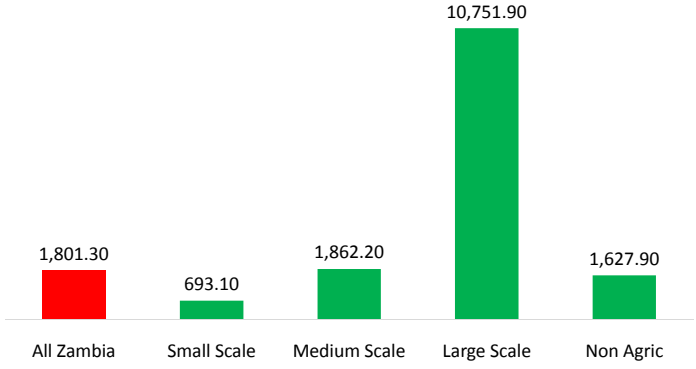


Figure 10.3 shows the average income earned by households by urban stratum in 2015. Overall, the results show that on average, households in urban areas earned three times more than households in rural areas except for Large Scale Agricultural households. Households in High Cost residential areas earned the highest level of average monthly income at K 7,698.50 followed by Medium Cost at K5, 320.70. Households in Low Cost earned the lowest average income at K2, 180.50.

Figure 10.4 shows average income earned by households by province. Copperbelt Province had the highest mean monthly income of K3, 228 followed by Lusaka Province at K2,892.90. Luapula Province had the lowest mean monthly income of K836.10. Western and Northern provinces had the second and third lowest mean monthly incomes of K882.20 and K896.90, respectively. Households in Copperbelt and Lusaka provinces recorded higher incomes than the national average.

10.3.1. Income Distribution by Age and Sex

Table 10.2 shows the percentage distribution of households by level of income, age and sex of head. Male headed households had higher levels of mean monthly income as compared to female headed households. Male headed households earned mean monthly income of K1, 928, while female headed households earned mean monthly income of K1, 377.60.

Figure 10.3: Average Income Earned by Households by Urban Stratum, Zambia, 2015.

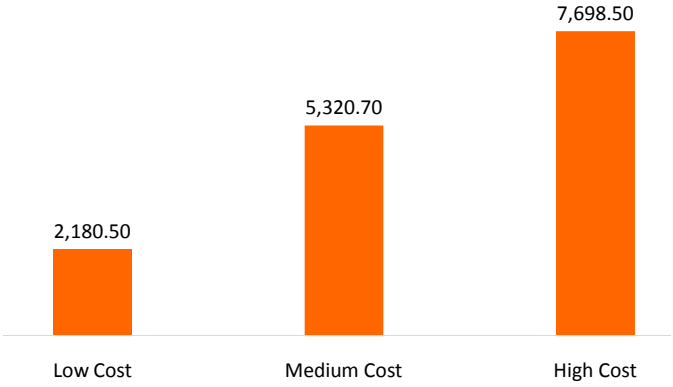


Figure 10.4: Average Income earned by Households by Province, Zambia, 2015.

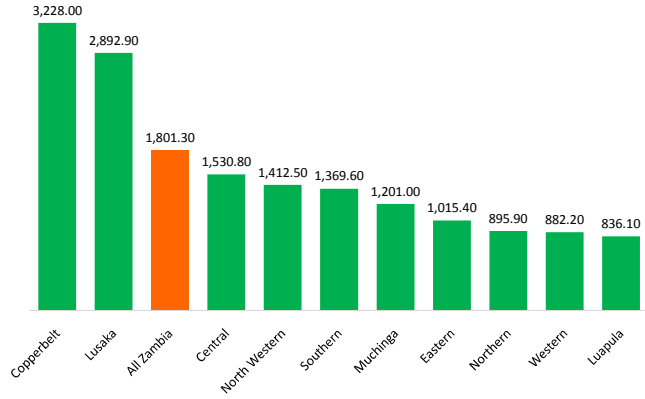
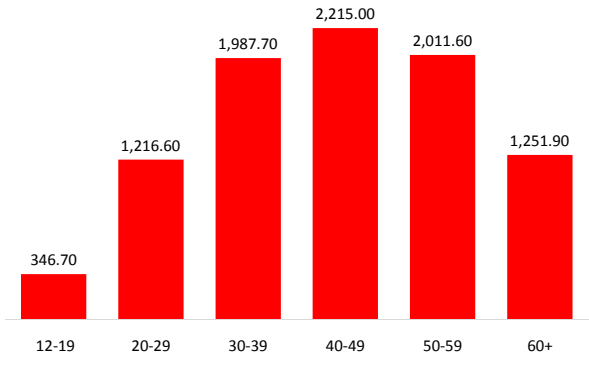


Table 10.2: Percentage Distribution of Household Income by Age and Sex of Head, Zambia, 2015

Sex and Age Group	Household income											
	Less than 50	50 - 150	>150 - 300	>300 - 450	>450 - 600	>600 - 800	>800 - 1,000	>1000 - 1200	>1200	Total	Average Income	Number of Households
Total Zambia	**3.8**	**8.8**	**13.1**	**10.4**	**8.9**	**8.9**	**7.0**	**4.9**	**34.4**	**100.0**	**1,801.3**	**2,944,477**
Sex of head												
Male	3.4	7.7	12.0	10.2	8.7	9.3	7.2	5.0	36.5	100	1,928.0	2,266,562
Female	5.0	12.6	17.0	10.9	9.3	7.4	6.0	4.5	27.4	100	1,377.6	677,915
Age group of head												
12 - 19	7.5	15.8	38.6	14.2	9.7	9.2	0.0	1.0	4.0	100	346.7	8,470
20 - 29	4.1	10.8	14.2	11.5	10.2	11.6	7.8	5.4	24.4	100	1,216.6	500,517
30 - 39	3.9	6.8	11.8	8.9	8.3	8.4	7.7	4.6	39.5	100	1,987.7	900,483
40 - 49	2.5	7.7	11.3	8.8	8.3	8.7	7.3	5.2	40.2	100	2,215.0	683,801
50 - 59	3.5	8.2	11.7	11.8	9.0	8.2	5.6	4.9	37.1	100	2,011.6	423,730
60+	5.2	12.8	18.5	13.3	9.2	7.4	5.3	4.3	24.1	100	1,251.9	427,476

Figure 10.5 shows average monthly income earned by age of household head. The results show that households whose head were aged between 40 – 49 years earned the highest level of mean monthly income of K2,215.00, while households headed by persons in the age group 12-19 years earned the lowest level of mean monthly income of K346.70.

Figure 10.5: Average Monthly Income earned by Age of Household Head, Zambia, 2015.



10.3.2. Income Distribution by Highest Level of Education Attained by Household Head

Table 10.3 shows the income distribution by level of education attained by household head. Education is broken down into six subgroups namely: Grades 1-7, 8-9, 10-12, A-Level, Certificate/Diploma and Degree or higher. The higher the level of education attained by the head of the household, the higher the average monthly income earned by that household is likely to be.

The mean monthly income of households whose head had attained a degree or higher earned 10 times more than the household whose head had only completed Grades 1-7 at K 8,354 and K 798.50, respectively.

Table 10.3: Income Distribution by Level of Education of Household Head, Zambia, 2015.

Education Level of Head	Household Income											
	Less than 50	50 - 150	>150 - 300	>300 - 450	>450 - 600	>600 - 800	>800 - 1,000	>1000 - 1200	>1200	Total	Average Income	Number of Households
All Zambia	**3.8**	**8.8**	**13.1**	**10.4**	**8.9**	**8.9**	**7.0**	**4.9**	**34.4**	**100**	**1,801.3**	**2,944,477**
Not stated	.8	2.9	2.7	4.3	6.2	4.4	2.0	3.7	73.1	100	5,089.8	47,971
Grades 1-7	4.3	12.1	17.7	14.1	11.4	10.5	7.7	4.9	17.2	100	798.5	1,165,925
Grades 8-9	3.9	6.5	11.4	10.6	10.4	11.0	8.6	7.3	30.3	100	1,239.8	582,017
Grades 10-12	2.9	4.7	7.9	5.8	7.0	8.8	6.8	5.2	50.8	100	2,173.0	563,116
A-Level	7.9	9.6	0.0	6.6	1.8	1.6	12.0	1.8	58.7	100	2,716.9	8,420
Certificate/ diploma	1.0	1.2	2.0	2.0	1.7	1.7	4.6	1.3	84.6	100	5,589.5	228,846
Degree or higher	.5	1.2	1.5	0.7	.2	.5	.6	.9	93.8	100	8,353.9	86,628

10.3.3. Income Distribution by Poverty Status

In the 2015 LCMS, households were asked to specify their poverty status in a purely subjective way based on the perception of the household being enumerated.

Table 10.4 shows the mean monthly household income by self-assessed poverty category.

Those who considered themselves not poor had the highest levels of mean monthly income of K6, 882, while those who considered themselves extremely poor had the lowest levels of mean monthly income of K746. About 60 percent of households who considered themselves to be very poor earned average income not exceeding K450.

Table 10.4: Income Distribution by Self-Assessed Poverty Status, Zambia, 2015.

Household Self-Assessed Level of Poverty	Household Income											
	Less Than 50	50 - 150	>150 - 300	>300 - 450	>450 - 600	>600 - 800	>800 - 1,000	>1000 - 1200	>1200	Total	Average Income	Number of Households
All Zambia	**9.2**	**11.4**	**11.5**	**7.5**	**7.1**	**6.6**	**5.3**	**4.2**	**37.3**	**100**	**2,555.50**	**2,697,537**
Non poor	2.2	3.3	3.8	3.5	4.0	3.3	4.3	4.4	71.2	100	6,881.90	430,427
Moderately poor	6.0	8.3	9.7	7.4	7.0	7.4	6.2	3.9	44.1	100	2,587.00	1,216,845
Very poor	15.8	18.2	16.7	9.3	8.4	7.0	4.6	4.5	15.5	100	745.80	1,050,265

10.4. Per Capita Income

10.4.1. Per Capita Income by Sex of Household Head

Table 10.5 shows the monthly per capita income by sex of head, Residence, stratum and province. The mean per capita monthly household income as defined by the total household income divided by the number of persons in the household was K444.2 in 2015.

Analysis by Residence, results show that the average per capita income for rural areas was K185.9 while that of urban areas was K796.4.

Analysis by province reveals that Lusaka and Copperbelt provinces had the highest household per capita income of K794.9 and K752.6, respectively. Luapula Province had the lowest household per capita income of K180.3.

Analysed by sex of household head, at national level, the average per capita income for male headed households was K453.5 while that of female headed was K413.2.

Analysed by Residence, the average per capita income for male headed households in rural areas was K188.4 compared to K177.4 for female headed households. In urban areas, the average per capita income was K816.8 for male headed households compared to K728.9 for female headed households.

Table 10.5: Monthly per Capita Income by Sex of Head, Residence, Stratum and Province, Zambia, 2015.					
Residence/Stratum/ Province	Sex of household head		monthly income		
	Male	Female	Total	Average Income	Number of House-holds
	Average per capita	Average per capita	Average per capita		
Total Zambia	**453.5**	**413.2**	**444.2**	**1,801.3**	**2,944,477**
Residence					
Rural	188.4	177.4	185.9	810.0	1,698,372
Urban	816.8	728.9	796.4	3,152.4	1,246,105
Stratum					
Small Scale	152.8	151.1	152.4	693.1	1,526,604
Medium Scale	300.4	420.1	308.7	1,862.2	56,550
Large Scale	2,365.7	733.7	2,170.4	10,751.9	2,712
Non-Agric	546.9	481.2	531.0	1,627.9	112,507
Low Cost	541.0	451.7	520.3	2,180.5	958,005
Medium Cost	1,321.0	1,108.2	1,270.4	5,320.7	159,244
High Cost	2,253.9	2,292.3	2,262.9	7,698.5	128,855
Province					
Central	384.9	417.4	392.1	1,530.8	288,228
Copperbelt	781.8	652.5	752.6	3,228.0	433,234
Eastern	218.7	201.1	215.1	1,015.4	339,686
Luapula	162.7	234.3	180.3	836.1	199,765
Lusaka	795.2	793.6	794.9	2,892.9	579,629
Muchinga	304.4	248.5	292.9	1,201.0	172,081
Northern	212.1	194.7	208.6	895.9	249,746
North Western	375.7	231.3	331.7	1,412.5	163,576
Southern	322.7	273.4	311.2	1,369.6	321,187
Western	207.7	232.0	215.3	882.2	197,345

10.5. Income Inequality

Increases in household average income and average per capita income tell a useful story about changes in welfare over time, because income is an important determinant of a household's ability to access key goods and services that improves a household's welfare. However, changes in per capita income on average cannot tell the whole story particularly if this income is not evenly distributed across the population. The welfare of poorer sections of society could be reducing as the welfare of the richest sections of society increases.

By understanding the distribution of income, we will come closer to understanding why the positive effects of economic growth are not immediately felt by all households within Zambia.

Table 10.6 shows how the household monthly per capita income is distributed across the 10 deciles. The first decile relates to the 10 percent of households that are in the lowest income group, while the tenth decile is the 10 percent of households falling into the highest income group.

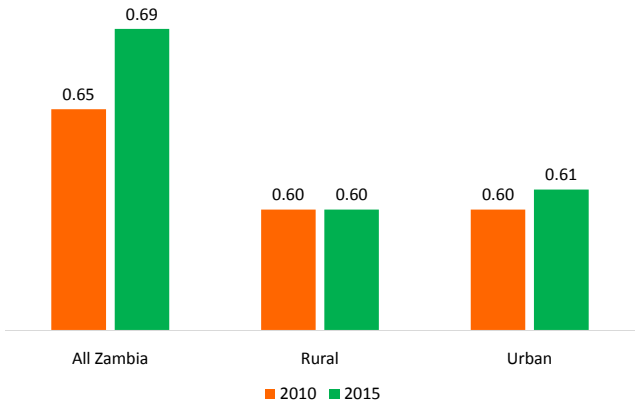
At national level, the results show that the Gini Coefficient was 0.69. In urban areas the Gini Coefficient was at 0.61 while in rural areas it was 0.60.

Table 10.6: Percentage Distribution of Households by Per Capita Income Deciles and Residence, Zambia, 2015.							
Per capita income deciles	Cumulative percent of households	All Zambia		Rural		Urban	
		percent share of per capita income	Cumulative share of per capita income	percent share of per capita income	Cumulative share of per capita income	percent share of per capita income	Cumulative share of per capita income
First decile	10	0.2	0.2	0.6	0.6	0.1	0.1
Second decile	20	0.8	1	2.7	3.3	0.1	0.2
Third decile	30	1.4	2.3	4.7	8.1	0.3	0.5
Fourth decile	40	2	4.3	6.7	14.7	0.5	1
Fifth decile	50	2.9	7.2	9	23.7	1	2
Sixth decile	60	4.2	11.4	11	34.6	2	4
Seventh decile	70	6	17.4	12.9	47.5	3.8	7.8
Eighth decile	80	9.4	26.8	13.7	61.2	8.1	15.9
Ninth decile	90	17.2	44	14.1	75.3	18.1	34
Tenth decile	100	56	100	24.7	100	66	100
Gini coefficient		0.69		0.60		0.61	

Figure 10.6 shows the Gini Coefficient by Residence. The figure shows that there was an increase in the overall income inequality from 0.65 in 2010 to 0.69 in 2015. In the rural areas, the level of income inequality remained relatively the same at 0.60 while in urban areas there was a minimal increase in income inequality from 0.60 in 2010 to 0.61 in 2015.

To illustrate the extent of the inequality in income distribution, it is useful to consider that while the poorest 50 percent of households accounted for only 7.3 percent of total income, the richest 10 percent of the households accounted for 56 percent of total income in 2015 (refer to Table 10.6).

Figure 10.6: Shows the GINI Coefficient, Zambia, 2010 and 2015.



A more useful measure, therefore, to compare inequality over time and across geographical locations is the Gini coefficient as reported in Figure 10.6. The Gini coefficient increased from 0.65 to 0.69, which suggests an increase in income inequality over the four-year period.

Figures 10.7 and 10.8 illustrate the national and Residence Lorenz Curves for Zambia

Figure 10.7: Lorenz Curve, Zambia, 2015.

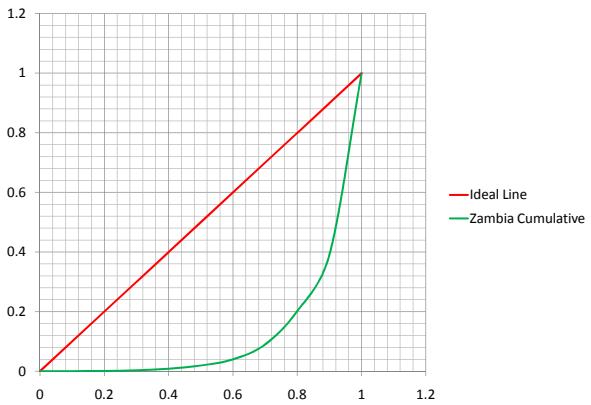


Figure 10:8: Rural and Urban Lorenz Curves, Zambia, 2015

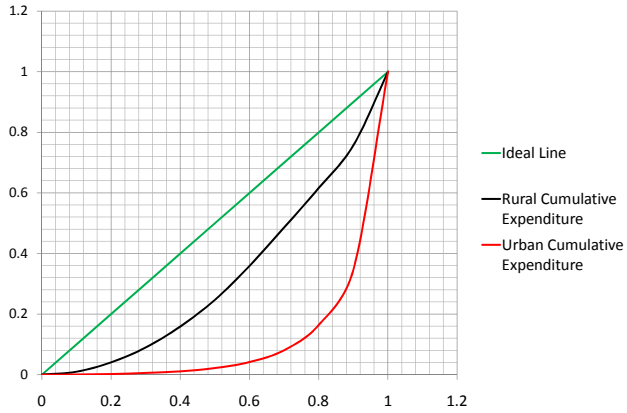
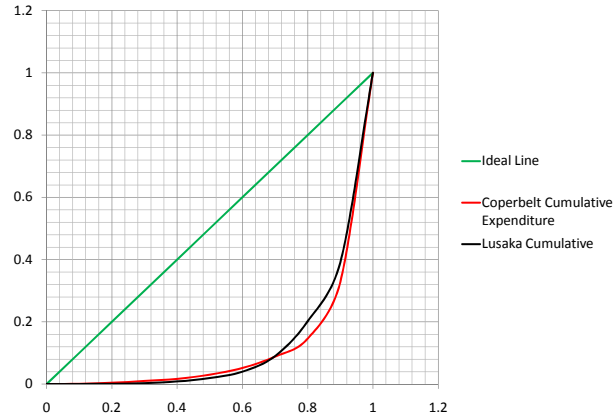


Figure 10.9 shows the Lorenz curves for the two richest provinces, Lusaka and Copperbelt. At all points in Figure 10.9, the Lorenz curve for Lusaka lies above that of Copperbelt Province, suggesting that income is more evenly distributed in Lusaka than in the Copperbelt.

Figure 10.9: Lusaka and Copperbelt Lorenz Curves, Zambia, 2015.



10.5.1. Income Distribution 1996-2015

Table 10.8 shows the percentage distribution of household per capita income deciles from 1996 to 2015. In 1996, the poorest 50 percent of households claimed 11 percent of the total income, whereas in 2015 the poorest 50 percent of households claimed 7.3 percent of total income. This is further reflected in the Gini Coefficient, which increased from 0.61 in1996 to 0.69 in 2015.

Table 10.7: Percentage Distribution of Household Income, Historical Context, Zambia, 1996-2015

Decile	Cumulative % of Households	1996		1998		2002		2004		2006		2010		2015	
		% Share of peer capita income	Cumulative share of per capita income	% Share of per capita income	Cumulative share of per capita income	% Share of per capita income	Cumulative share of per capita income	% Share of per capita income	Cumulative share of per capita income	% Share of per capita income	Cumulative share of per capita income	% Share of per capita income	Cumulative share of per capita income	% Share of per capita income	Cumulative share of per capita income
First decile	10	0.5	0.5	0.2	0.2	1.2	1.2	1.2	1.2	0.2	0.2	0.5	0.5	0.2	0.2
Second decile	20	1.5	2	1	1.2	2.3	3.5	2.7	3.9	0.7	0.9	1.1	1.6	0.8	1
Third decile	30	2.2	4.2	1.8	3	3.1	6.6	4.2	8.1	1.3	2.2	1.7	3.3	1.4	2.3
Fourth decile	40	2.9	7.1	2.6	5.6	3.9	10.5	5.9	14	2.2	4.4	2.4	5.7	2	4.3
Fifth decile	50	3.9	11	3.5	9.1	4.8	15.3	6.9	20.9	3.3	7.8	3.4	9.1	2.9	7.2
Sixth decile	60	5.2	16.2	4.8	13.9	5.8	21.1	9.2	30.1	5.2	12.9	4.5	13.6	4.2	11.4
Seventh decile	70	6.8	23	6.4	20.3	7.4	28.5	10.6	40.7	7.7	20.6	6.6	20.2	6	17.4
Eighth decile	80	9.2	32.2	9	29.3	9.6	38.1	14.4	55.1	10.8	31.3	10.1	30.3	9.4	26.8
Ninth decile	90	14.9	47.1	13.9	43.2	14.3	52.4	17.2	72.3	16.8	48.1	17.1	47.4	17.2	44
Tenth decile	100	52.9	100	56.8	100	47.7	100.1	27.7	100	51.9	100	52.6	100	56	100
Gini Coefficient		0.61		0.66		0.57		0.57		0.6		0.65		0.69	

10.6 Ownership of Household Assets

Ownership of assets is another useful measure when considering changes in household welfare. Not only is it a proxy for ability to consume, but also ownership of productive assets such as farming implements can determine a household's ability to further generate income.

Table 10.8 shows the proportion of households owning various assets by Residence. The most commonly owned asset was a mattress, with 76.5 percent of households owning it. Other commonly owned assets were hoes, beds and braziers, which were owned by 74.8 percent, 69.2 percent and 68.1 percent of households, respectively.

Ownership of agricultural machinery and equipment was much more prevalent in rural areas than in urban areas, in particular items such as ploughs, crop sprayers, hammer mills, hoes and axes. For example, while 94.7 percent of rural households owned a hoe, 48.3 percent of urban households owned one.

Furthermore, ownership of livestock was also higher in rural areas. For example, 4.8 percent of rural households had ownership of at least one oxen compared to 0.3 percent of urban households.

Conversely, ownership of electrical equipment such as electric stoves, electric irons and DVD/VCR players were much higher in urban areas than in rural areas. For example, while 56.7 percent of urban households had ownership of a DVD/VCR, only 9.8 percent of rural households owned one.

This pattern also continues for telecommunication equipment, with urban households more likely to own cellular phones, satellite dishes/decoders, televisions and radios. This is particularly noticeable for cellular phones where ownership was at 81.4 percent for urban households, compared to 46.1 percent for rural households.

Table 10.8: Proportions of Households Owning Various Asset by Residence, Zambia, 2015.			
Assets	All Zambia	Residence	
		Rural	Urban
Plough	8.3	14.0	0.8
Crop sprayer	5.0	8.2	0.8
Boat	0.3	0.5	0.1
Canoe	1.6	2.6	0.2
Brazier/ Mbaula	68.1	50.9	91.0
Fishing net	2.8	4.6	0.3
Bicycle	34.8	46.0	20.1
Motor cycle	1.1	1.4	0.7
Car, Van/minibus, large/small pick-up truck	8.0	2.0	16.1
4 wheel tractor	0.2	0.2	0.2
Television	37.5	14.2	68.5
DVD/VCR/Home theatre	30.0	9.8	56.7
Radio/ stereo	39.6	37.4	42.5
Grinding/hammer mill (powered)	0.4	0.5	0.3
Electric iron	23.6	3.1	50.7
Non-electric iron	15.2	16.0	14.2
Refrigerator	12.0	1.4	26.0
Deep freezer	14.1	1.6	30.6
Land telephone	0.2	0.0	0.5
Cellular phone	61.3	46.1	81.4
Satellite dish / decoder (Free to air/DSTV)	22.3	4.4	46.0
Sewing machine	2.1	1.5	2.9
Knitting machine	0.1	0.1	0.1
Electric stove	21.7	2.6	47.1
Gas stove	0.3	0.2	0.5
Non-residential building	1.5	1.5	1.6
Residential building	34.7	42.6	24.3
Scotch cart	3.5	5.9	0.2
Donkey	0.1	0.2	0.0
Oxen	2.9	4.8	0.3
Computer	5.4	1.1	11.0
Hoe	74.8	94.7	48.3
Axe	54.2	76.0	25.3
Hunting gun	0.2	0.3	0.1
Table (dining)	21.0	14.2	29.9
Lounge suit / sofa	33.3	12.9	60.2
Bed	69.2	54.4	88.8
Mattress	76.5	62.8	94.6
Pick	15.7	14.9	16.8
Hammer	18.1	17.9	18.4
Shovel/spade	22.9	19.3	27.6
Wheel burrow	6.1	3.1	10.0
Small/hand-driven tractor	0.0	0.0	0.0
Private water pump	0.3	0.2	0.4
Hand hammer mill	1.5	1.2	1.9
Sheller	0.1	0.2	0.0
Rump presses/oil expellers	0.0	0.0	0.0
Hand saw	2.2	2.0	2.4
Carpentry plane	1.1	0.9	1.3

Table 10.9 shows the proportion of households owning various assets by sex of household head. Results show that male headed households have higher ownership of all household assets with the exception of residential buildings.

Table 10.9: Proportion of Households Owning Various Asset by Sex of Household Head, Zambia, 2015.

Assets	All Zambia	Sex of Household Head	
		Male	Female
Plough	8.3	9.5	4.4
Crop sprayer	5.0	6.0	1.8
Boat	0.3	0.4	0.0
Canoe	1.6	2.0	0.4
Brazier/ Mbaula	68.1	69.0	65.1
Fishing net	2.8	3.4	0.6
Bicycle	34.8	41.0	14.2
Motor cycle	1.1	1.4	0.2
Car, Van/minibus, large/small pick-up truck	8.0	9.4	3.5
4 wheel tractor	0.2	0.3	0.0
Television	37.5	40.0	29.4
DVD/VCR/Home theatre	30.0	32.2	22.7
Radio/ stereo	39.6	44.9	22.1
Grinding/hammer mill (powered)	0.4	0.5	0.1
Electric iron	23.6	24.1	21.9
Non-electric iron	15.2	15.8	13.2
Refrigerator	12.0	12.4	10.6
Deep freezer	14.1	14.6	12.3
Land telephone	0.2	0.3	0.1
Cellular phone	61.3	64.2	51.8
Satellite dish / decoder (Free to air/DSTV)	22.3	23.6	17.8
Sewing machine	2.1	2.3	1.4
Knitting machine	0.1	0.1	0.1
Electric stove	21.7	22.5	19.2
Gas stove	0.3	0.4	0.2
Non-residential building	1.5	1.8	0.8
Residential building	34.7	34.2	36.3
Scotch cart	3.5	3.9	2.0
Donkey	0.1	0.1	0.1
Oxen	2.9	3.2	1.7
Computer	5.4	5.9	3.7
Hoe	74.8	75.1	73.7
Axe	54.2	58.3	40.6
Hunting gun	0.2	0.3	0.1
Table (dining)	21.0	22.8	14.7
Lounge suit / sofa	33.3	34.8	28.1
Bed	69.2	71.2	62.5
Mattress	76.5	78.2	70.9
Pick	15.7	17.9	8.6
Hammer	18.1	21.7	6.2
Shovel/spade	22.9	25.7	13.6
Wheel burrow	6.1	7.1	2.8
Small/hand-driven tractor	0.0	0.0	0.0
Private water pump	0.3	0.4	0.2
Hand hammer mill	1.5	1.7	1.1
Sheller	0.1	0.1	0.1
Rump presses/oil expellers	0.0	0.0	0.0
Hand saw	2.2	2.7	0.4
Carpentry plane	1.1	1.4	0.1

CHAPTER 11
HOUSEHOLD EXPENDITURE

11.1 Introduction

Household consumption expenditure plays a vital role in the economy in several ways. Firstly, it is closely associated with household poverty, well-being and living standards. In general, households are classified into different poverty classes on the basis of their expenditures on various goods and services, which include, among other things, basic human needs such as food, shelter, clothing, etc. Household well-being and living standards are adjudged by the quality and quantity of goods and services that the household is able to access.

Secondly, household consumption expenditure constitutes a sizeable proportion of final expenditure (formerly private consumption) in the national accounts. Household final consumption expenditure (HFCE), which is the traditional measure of consumer spending, is one of the key indicators used all over the world to gauge the health and vitality of an economy, as well as that of individual households. It is the market value of all goods and services, including durable products (such as cars and home computers), purchased by households. It significantly affects aggregate demand, income and employment in an economy. In Zambia, HFCE is the largest component of Gross Domestic Product (GDP) by type of expenditure, accounting for over 30 per cent of total GDP.

Thirdly, household consumption expenditure serves as a useful proxy for household income, which in many cases tends to be under-reported by most households. It is in this regard that Government institutions, non-governmental organisations and individuals responsible for policy formulation and poverty reduction have a special need for household expenditure data.

The 2015 LCMS collected data on the following household expenditures:

- **Expenditure on food:** *this includes expenses on bread, meat, milk, nuts, etc., including own produce and gifts consumed;*
- **Expenditure on alcoholic and non-alcoholic beverages, cigarettes and tobacco;**
- **Expenditure on housing:** *this includes expenses on rent, water charges, electricity bills, purchase of candles, paraffin, charcoal and firewood including value of own produce consumed and house maintenance costs, etc.*
- **Educational expenditure:** *this includes expenses on school fees, purchases of school uniforms, contributions to Parent Teachers' Associations, private tuition fees, expenses on school stationery, etc.*
- **Medical expenses:** *this includes expenses on medicines, fees to doctors, expenses under pre-payment schemes, etc.*
- **Expenditure on consumer goods:** *this includes expenses on purchase of clothing and footwear, etc.*
- **Remittances in cash or in kind;**
- **Expenditure on public and private transport:** *this includes transport expenses to and from work or school, fuel and vehicle maintenance expenses, etc.*
- **Expenditure on personal services:** *this includes expenses on laundry, entertainment, hairdressing, etc.*

The data collected on consumption of own produce included both food and non-food items. The amounts of own produced food and non-food stuffs were converted to cash values by multiplying their respective quantities used by the household by their respective unit prices. The amounts were then added to the corresponding cash expenditure to give total household expenditure on the items.

Key Definitions

- **Household Monthly Expenditure:** This refers to household members' monthly expenditure on goods and services for consumption. It can be defined as the sum of all expenditure of household members.

- **Household Monthly Average Expenditure:** This is a household's monthly expenditure on goods and services for consumption. It is calculated as the quotient of total monthly expenditure of all households and the total number of households.

- **Average Per Capita Monthly Expenditure:** Average per capita monthly expenditure denotes the average monthly expenditure of a household member. It is calculated as a quotient of total household monthly expenditure and the total number of persons in the household.

- **Food:** Food was considered to include all food items that households purchased and consumed during the reference period.

- **Food Expenditure:** Food expenditure comprises expenses in monetary terms on purchased food items, the value of own produced food items and food items received in kind for consumption. To convert quantities of own produced food items consumed and food items received in kind into monetary terms, the quantities were multiplied by their corresponding estimated market or actual prices. The product was treated as part of expenditure on food.

- **Non-food:** This refers to all goods and services (other than food) purchased for use or for consumption by the household during the reference period. Also included under non-food items were own produced goods and goods received in kind for use or for consumption. The only own produced service included was owner-occupied housing. However, services received in kind were also included under non-food.

- **Non-food Expenditure:** Non-food expenditure comprised expenses on purchased non-food items, value of own produced non-food items and non-food items received in kind for use or for consumption. Non-food items received in kind and own produced non-food items were valued by multiplying their estimated or actual market prices by the quantity consumed.

- **Percentage Expenditure Share:** Percentage expenditure shares were calculated from food and non-food expenditures as the quotient of expenditure on food or non-food and total expenditure, multiplied by 100.

Constructing the Food Consumption Expenditure Aggregate

Household expenditure for the 2015 LCMS was obtained by adding the various goods and services purchased, consumed from own production and received as gifts. Consumption expenditure of all these goods and services was converted into Kwacha values, converted into monthly values, and then added together to obtain a measure of monthly household expenditure. The various components of the consumption expenditure used to construct this aggregate were grouped into two main groups: food items and non-food items.

Food consumption consisted of food purchased in the marketplace; own produced food, food items received as gifts, as relief food or as food-for-work from other households, and food taken/eaten outside the home. Data were collected on the total amount spent on purchased items, total amount consumed on home produced items and how much the household received as gifts, relief food or food-for-work items. These were asked for two recall periods: the last two weeks and the last four weeks, depending on whether the items were frequently purchased or infrequently purchased.

11.2. Total Average Monthly Household and Per Capita Expenditure

Calculating the food purchases sub-aggregate involved converting all reported expenditure on food items to a uniform reference period – last 30 days – and then aggregating these expenditures across all food items consumed by the household.

The own produced food sub-aggregate was calculated by adding the reported value of consumption of each of the own produced food items in a manner analogous to that followed in the case of food purchases.

For items where the quantities were reported in local units such as meda, heap, the data were converted based on standardization of measurement units. For households consuming non-zero quantities of a particular item with missing values and for cases with inconsistent data on quantities and values (that yielded outliers of unit prices), median unit prices in the strata where the household resides were used to make imputations. The median prices were computed and used separately for purchased and own produced items.

The 2015 LCMS also asked for the total value of meals taken outside the home by all household members, and this amount was likewise included in the food consumption aggregate. Consumption of tobacco was excluded in the food consumption aggregate but Included in the non-food consumption aggregate.

Table 11.1 shows the nominal average monthly household expenditure (in Kwacha) by Residence. The average monthly household consumption expenditure was K1,588. Of the total average monthly expenditure, households spent K298 more on non-food than on food items at K943 and K645, respectively.

Analysis by Residence shows that overall, households in urban areas spent at least two times more than rural households in all areas of expenditure. Total average monthly expenditure for urban households was K2, 680 compared to K763 by rural households. Further, urban households spent K930 and K1,750 on food and non-food, respectively compared to K430 and K333 expenditure by rural households. This implies that urban households on average spent K89 per day compared to K25 spent per day by their rural counterparts.

Table 11.1 further indicates that the average per capita expenditure in 2015 was K388. The average per capita expenditure for an urban household was higher than the national average at K675 which was about four times that of the rural household at K172.

Table 11.1: Average Monthly Household Expenditure (Kwacha) by Residence, Zambia, 2015.					
Residence	**Total**	**Food**	**Non-food**	**Average per capita expenditure**	**Number of house-holds**
ALL	**1,588**	**645**	**943**	**388**	**3,014**
Residence					
Rural	763	430	333	172	1,718
Urban	2,680	930	1,750	675	1,296

Figure 11.1: Average Monthly Expenditure (Kwacha) by Residence, Zambia, 2015.

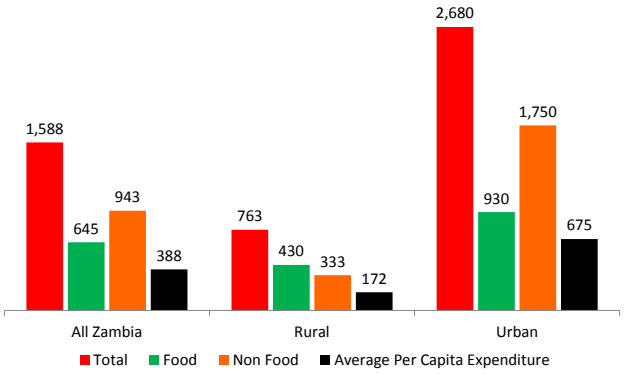


Figure 11.2: Average Monthly Expenditure (Kwacha), Zambia ,2006, 2010 and 2015.

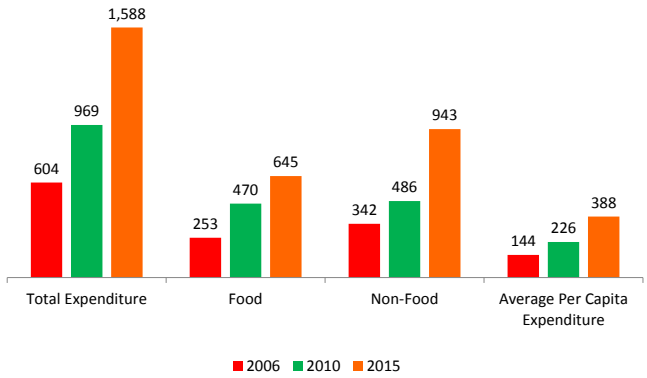


Figure 11.2 shows the total average monthly expenditure trend for the periods 2006, 2010 and 2015. The average monthly household expenditure increased by 1.3 percentage-points during the period under consideration.

In nominal terms, average monthly household expenditure increased more than two and half times between 2006 and 2015. The average household expenditure in 2006, 2010 and 2015 was K604, K969 and K1, 588, respectively.

On average monthly household expenditure on food and non-food increased. The Average monthly expenditure on non-food was higher than food. The average monthly expenditure on non-food and food were K342 and K253 in 2006; K486 and K470 in 2010, and K943 and K645 in 2015, respectively.

Average monthly household per capita expenditure between 2006 and 2015 also increased similar to the pattern observed for average monthly household expenditures on non-food and food. Average per capita expenditure in 2006, 2010, and 2015 was K144, K226 and K388, respectively. The per capita monthly household average expenditure in 2015 was almost three times higher than the 2006 figure in nominal terms.

11.2. Average Monthly Expenditure by Stratum

Table 11.2 shows the household average monthly expenditure by stratum. Overall, households on average per month spent more on non-food than food items except for the households in the Small Scale Agricultural stratum.

Analysis by stratum shows that Large Scale Agricultural households on average spent the largest expenditure on non-food compared to other rural households at K2,532. The small scale Agric households recorded the least average monthly household expenditure at K698, while large scale farmers recorded the highest at K3,645.

Among the urban strata, only households residing in low cost areas spent more on food. However, households in high cost spent more on both food and non-food items relative to the rest of the households. Households in high cost areas at K6,818 followed by medium cost areas at K4,078 had the highest average monthly expenditure. Even if households in the low cost strata had the least monthly average expenditure of K1,893 among urban households, their average monthly expenditure was higher than that of all the households in the rural strata except for the large scale farmers.

Considering average per capita expenditure, the pattern is similar to that of total average monthly expenditure irrespective of the residence of the household. Households in high cost areas had the highest monthly average per capita expenditure at K2,102 followed by households in medium cost areas at K955. Households in small, medium and non-agric scales had their average per capita expenditure lower than the national average of K388. The average per capita expenditure for households in urban areas was higher than the national average.

Table 11.2: Average Monthly Household Expenditure (Kwacha) by Stratum, Zambia, 2015.					
Stratum	**Total**	**Food**	**Non-food**	**Average per capita expenditure**	**Number of house-holds**
Total Zambia	**1,588**	**645**	**943**	**388**	**3,014**
Rural Stratum					
Small Scale	698	411	288	153	1,543
Medium Scale	1,454	701	753	231	56
Large Scale	3,645	1,113	2,532	742	3
Non-agriculture	1,222	546	677	382	115
Urban Stratum					
Low Cost	1,893	787	1,106	437	996.9
Medium Cost	4,078	1,251	2,827	955	167.1
High Cost	6,818	1,596	5,222	2,102	133

Figure 11.3: Average Monthly Household Expenditure (Kwacha) by Stratum, Zambia, 2015.

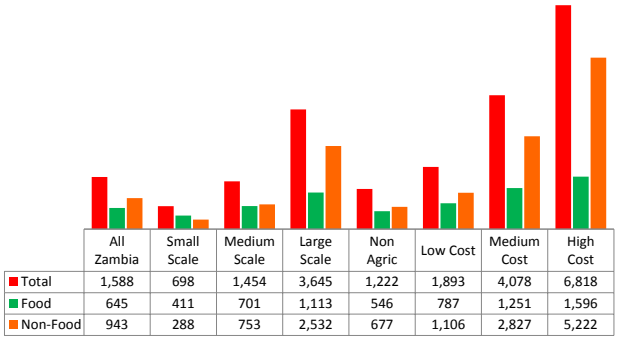
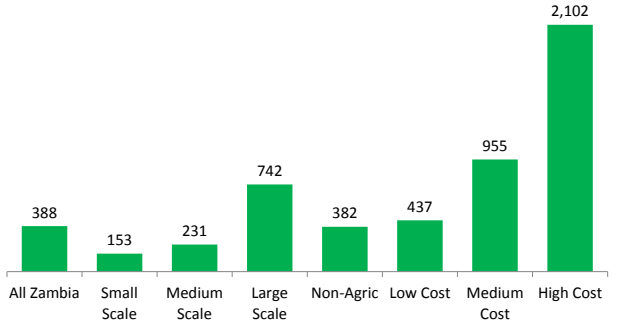


Figure 11.4: Average Monthly Household Per Capita Expenditure (Kwacha) by Stratum, Zambia, 2015.



11.3. Average Monthly Expenditure by Province

Table 11.3 shows the household average monthly expenditure by province. Analysis by province shows that households in Lusaka Province (K2,902) had the highest average monthly expenditure. Copperbelt Province (K2,416) had the second highest average monthly expenditure. Although Western Province (K689) had the lowest average total expenditure, the difference in total average expenditure with that of Northern Province (K691) was marginal. Copperbelt Province had the highest expenditure on food at K961 with Lusaka Province following closely in the second position at K876. Western had the lowest average monthly expenditure on food. Except for Copperbelt, Lusaka and Southern provinces, the rest of the provinces had their average monthly expenditure on food higher than that of their average monthly expenditure on non-food. Infact, only Copperbelt and Lusaka provinces had their average monthly expenditure on food higher than the national average of K645. However, only Lusaka (K2, 026) and Copperbelt (K1, 455) provinces had their average monthly expenditure on non-food that was higher than the national average of K943.

Overall, the monthly average per capita expenditure of Lusaka Province which was the highest amongst the ten provinces in Zambia at K798 was at least four times more than that of the four provinces with the lowest average per capita expenditures, namely, Luapula (K151), Northern (K155), Western (K163) and Eastern (K197), respectively. Only Lusaka and Copperbelt provinces had their average per capita expenditure higher than the national average of K388.

Table 11.3: Average Monthly Household Expenditure (Kwacha) by Province, Zambia, 2015.					
Province	**Total**	**Food**	**Non-Food**	**Average per capita expenditure**	**Number of household(000s)**
Total Zambia	**1,558**	**645**	**943**	**388**	**3,014**
Province					
Central	1,299	607	692	322	292
Copperbelt	2,416	961	1,455	539	450
Eastern	933	496	437	197	342
Luapula	726	422	304	151	207.6
Lusaka	2,902	876	2,026	798	592
Muchinga	953	471	482	226	174.8
Northern	691	389	301	155	253.8
North-Western	1,082	573	509	253	164.1
Southern	1,401	621	779	323	338.3
Western	689	368	321	163	199.2

Figure 11.5: Average Monthly Household Expenditure (Kwacha) by Province, Zambia, 2015.

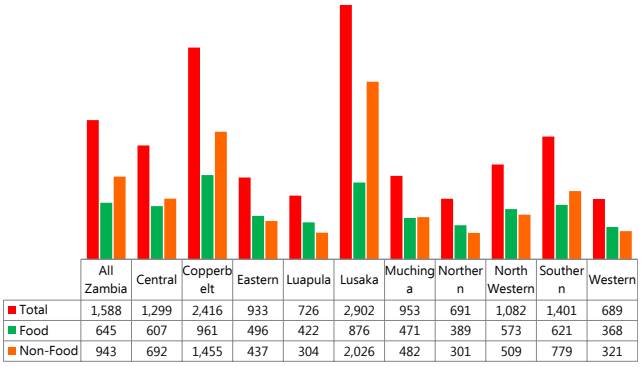


Figure 11.6: Average Monthly Household per Capita Expenditure (Kwacha) by Province, Zambia, 2015.

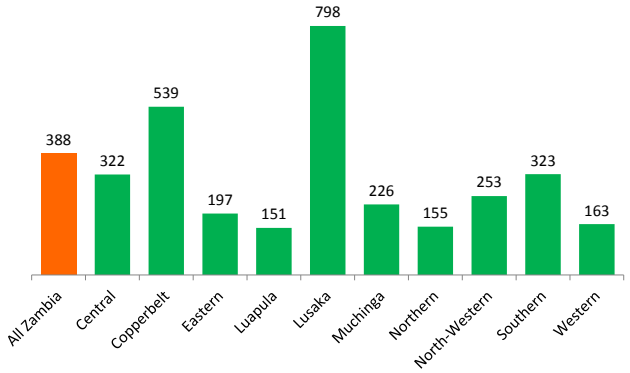
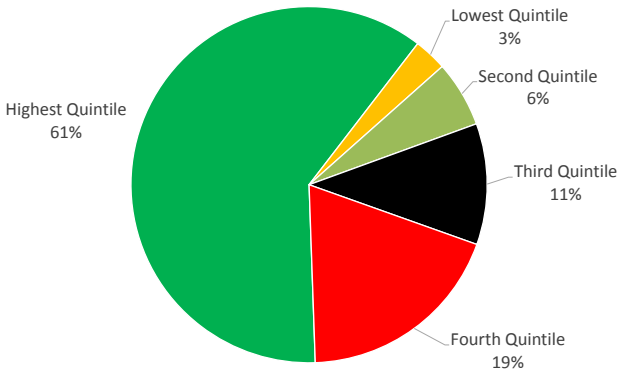


Table 11.4 shows the average monthly household expenditure by quintiles, per capita percentage share and household share. The results show remarkable differences in household average monthly expenditure and per capita expenditure between the households in the first (lowest) and fifth (highest) quintiles. On average, households in the fifth (highest) quintile spend 21 and 16 times more than the average monthly expenditure and average monthly per capita expenditure of households in the first (lowest) quintile, respectively.

Further, the results show that 20 percent of the households in the fifth (highest) quintile had 61.2 percent share of total monthly expenditure while the bottom 40 percent of the households in the first (lowest) and second (second highest) quintiles shared 9 percent of total monthly expenditure. The aggregate of the bottom three quintiles representing 60 percent of the population share 19.6 percent of total monthly expenditure.

Table 11.4: Household Expenditure by Quintile (Kwacha), Zambia, 2015.					
Quintile group	**Average Monthly expenditure**	**Average Monthly per capita Expenditure**	**Percentage shares of households**	**Percentage share of expenditure**	**Average household size**
Lowest	227	72	20	2.9	4.4
Second	486	133	20	6.1	4.9
Third	842	218	20	10.6	5.2
Fourth	1,525	374	20	19.2	5.3
Highest	4,856	1,144	20	61.2	5.8
Total	**1,588**	**388**	**100**	**100**	**5.1**

Figure 11.7: Share of Monthly Average Household Expenditure, Zambia, 2015.



11.5. Percentage Share of Household Expenditure on Food and Non-Food Items

Table 11.5 shows the percentage share of household expenditure on food and non-food items by Residence, stratum and province. The results at national level show that households spent more on non-food than food items. The share of household consumption on non-food was 59.4 percent compared to 40.6 percent on food.

Overall, analysis by residence shows that rural households had 56.4 percent of their expenditure on food compared to 65.3 percent spent on non-food by their urban counterparts.

Analysed by stratum within rural areas, the results show that Large Scale Agricultural households had the largest proportion of their monthly expenditure on non-food compared to the rest of the households within the rural areas at 69.3 percent. Except for households in Small Scale, all households in the rural areas spent a bigger share of their income on non-food consumption expenditure items than they spent on food expenditure items. Small Scale households spent 58.8 percent of their total household consumption expenditure on food items.

Analysis by stratum within urban areas indicates that all households in urban spent more on non-food than food items as reflected by higher shares on non-food. Households in low cost areas at 41.6 percent had almost twice as much of their expenditure on food expenses compared to households from high cost areas whose share of food expenditure was 23.4 percent. Medium and high cost areas had 30.7 and 23.4 percent of their household expenditure on food expenses, respectively. Households from high cost had the highest share spent on non-food expenses at 76.6 percent followed by households from medium cost areas at 69.3 percent.

Analysis by province indicates that half of the ten provinces in Zambia spent more on food than on non-food items. These were Luapula (58.1 percent), Northern (8.9 percent), Western (53.4 percent), Eastern (53.2 percent) and North-Western provinces (53.0 percent). The differences in food shares between Luapula, Northern and Western provinces are marginal. The rest of the provinces spent more on non-food than food items with Lusaka having the largest share of expenditure on non-food at 69.8 percent. Copperbelt had the second largest share at 60.2 percent. Luapula Province had the lowest non-food household expenditure share at 41.9 percent.

Considering household consumption expenditure trend for the periods 2010 and 2015 indicates a 7.9 percentage-point decline in the share of household expenditure spent on food from 48.5 percent in 2010 to 40.6 percent in 2015. By the same margin, the share of non-food household consumption expenditure increased to 59.4 percent in 2015 from 51.5 percent in 2010. However, the share of food in 2006 compared to that of 2010 increased by 6.6 percentage-points from 41.9 percent to 48.5 percent, respectively.

The food and non-food share patterns by Residence for the period under consideration reflects a similar pattern i.e. rural households had more of their household expenditure on food than non-food while their urban counterparts had more on non-food than food in all the three surveys. Households in rural areas spent 58.7, 64.5 and 56.4 percent on food in 2006, 2010 and 2015. In urban areas, 67.6, 60.9 and 65.3 percent were spent on non-food in 2006, 2010 and 2015, respectively, compared to 32.4, 39.1 and 34.7 percent spent to food during the same period.

Table 11.5: Percentage Share of Household Expenditure on Food and Non-Food by Residence, Stratum and Province, Zambia, 2015.

Residence/ Stratum/Province	2015			2010		
	Food	Non-food	Total	Food	Non-food	Total
Total Zambia	**40.6**	**59.4**	**100**	**48.5**	**51.5**	**100**
Residence						
Rural	56.4	43.6	100	64.6	35.4	100
Urban	34.74	65.3	100	39.1	60.9	100
Stratum						
Small scale	58.8	41.2	100	65.7	34.3	100
Medium	48.2	51.8	100	55.7	44.3	100
Large scale	30.7	69.3	100	33.7	66.3	100
Non-agricultural	44.6	55.4	100	61.7	38.3	100
Low cost	41.6	58.45	100	44.5	55.5	100
Medium cost	30.7	69.3	100	35.6	64.4	100
High cost	23.4	76.6	100	28.8	71.2	100
Province						
Central	46.7	53.3	100	57	43	100
Copperbelt	39.8	60.2	100	42.5	57.5	100
Eastern	53.2	46.8	100	62.9	37.1	100
Luapula	58.1	41.9	100	63.7	36.3	100
Lusaka	30.2	69.8	100	35	65	100
Muchinga	49.5	50.5	100			
Northern	56.9	43.6	100	62.2	37.8	100
North-Western	53	47	100	71.8	28.2	100
Southern	44.4	55.6	100	50	50	100
Western	53.4	46.6	100	57.6	42.4	100

11.6. Percentage Share of Expenditure on Own Produced Food

For the majority of the rural community in Zambia, their livelihood depends on agricultural activities which is their main source of food and income. These households largely depend on own produced food to meet their household consumption needs. Easy access to own produced goods and services enhances the welfare and living standards of these households. Ability to produce and access own goods and services reduces the burden of large cash requirements where money is not relatively easy to acquire.

The 2015 LCMS collected information on own produced food consumed by households. The quantities of own produced food consumed were converted in monetary terms by comparing the quantity of own produced with the market value of same product and quantity within the locality.

Table 11.6 shows the percentage share of total expenditure on own produced food by Residence, stratum and province. Results show that 10.8 percent of total household expenditure constituted consumption of own produced food in 2015 representing a 2.7 percentage-point reduction in the share of household consumption of own produced food between 2010 and 2015.

The share of consumption of own produced food by rural households at 30.2 percent was over eight times more than that of their urban counterparts at 3.5 percent.

Households in small scale stratum with a share of 32.8 percent consumed 2.6 percent more of own produced food than their counterparts in medium scale stratum whose share was 30.2 percent of their total expenditure. Non-Agric households had the smallest share at 11.4 percent.

Households in low cost consumed 4.1 percent of own produced food followed by households from medium cost at 3.0 percent. Households from high cost areas consumed the least share of own produced food at 2.7 percent.

At provincial level, households in Eastern had the highest percentage share of expenditure on own produced food at 29.1 percent followed by Western with 24.9 percent, Luapula with 24.7 and Northern with 24.3 percent. There were marginal differences in shares of expenditure on own produced food between Western, Luapula and Northern provinces. Lusaka Province had the lowest share of expenditure on own produced food at 2.6 percent.

Analysing the trends in share of household expenditure on consumption of own produced food in 2006, 2010 and 2015 generally shows a downward trend. Between 2010 and 2015, the proportion of expenditure on own produced food consumed by households declined by 2.7 percentage-points from 13.5 percent to 10.8 percent. The decline in the proportion of expenditure on own produced food consumed by households between 2006 and 2010 was nearly four times that which was observed between 2010 and 2015.

Residence analysis shows that the share of total household expenditure on own produced food by rural households was at least four times more than that of urban households. Share of household expenditure on own produced food by rural households in 2015 was 30.2 percent compared to 24.5 percent in 2010 while that of urban households during the same period was 3.5 percent and 3.1 percent, respectively. In 2006, rural households spent 59.0 percent compared to 14.3 percent spent by their urban counterparts.

Table 11.6: Percentage Share of Total Expenditure on own Produced Food by Residence, Stratum and Province, Zambia, 2015.

Residence/Stratum/ Province	2015		2010	
	Own Produce Share	Number of Households	Own Produce Share	Number of Households
Total Zambia	**10.8**	**3,014,965**	**13.5**	**2,481,485**
Residence				
Rural	30.2	1,718,060	24.5	1,596,286
Urban	3.5	1,296,905	3.1	885,199
Stratum				
Small scale	32.8	1,542,587	26.9	1,422,769
Medium	30.2	56,974	27.3	40,388
Large scale	17	2,807	19.6	1,176
Non-agricultural	11.4	115,692.0	4.8	131,953
Low cost	4.1	996,975	3.9	655,128
Medium cost	3.0	166,580	1.6	147,434
High cost	2.7	133,350	1.7	82,637
Province				
Central	16	292,049	15.6	248,791
Copperbelt	5.3	450,843	6.0	367,577
Eastern	29.1	342,161	28.1	341,639
Luapula	24.7	207,161	28.1	341,639
Lusaka	2.6	592,073	1.9	365,038
Muchinga	20.7	174,832		
Northern	24.3	253,779	21.6	316,497
North-Western	21.9	164,141	19.1	136,999
Southern	15.8	338,259	13.9	309,752
Western	24.9	199,965	24.6	204,752

Constructing The Non-Food Consumption Expenditure Aggregate

The non-food consumption expenditure aggregate constitutes a lot of different non-food items and the 2015 LCMS only collected values of these non-food items. Data collected for non-food items were only for purchases and gifts. Constructing the non-food aggregate entailed converting all those reported amounts to a uniform reference period of 12 months, aggregating across the various items and then dividing by 12 to get a monthly non-food aggregate.

The estimate of the monthly value of expenditure on housing services was based on the data on the rental value of the dwelling. In the case of a household renting their own dwelling, the value of expenditure on housing services was taken to be the actual monthly rental paid. For those households occupying their own dwellings, they were asked to estimate how much their unit would cost if they were to put it on rent. Their estimate was imputed to be the rental value of their dwelling. Other households with free or subsidised housing had their rentals imputed as well. In case of those households occupying their own dwelling who could not make a rental estimate or those in free or subsidised dwellings, a Hedonic Regression model was used to impute rental values.

11.8 Percentage Share of Household Expenditure on Non-food

Table 11.7 shows the percentage share expenditure on non-food by item type and residence.

At national level, households had 59.7 percent of their total expenditure on non-food consumption. The poverty share of non-food consumption expenditure in rural and urban areas was 44 percent and 66 percent, respectively.

Household expenditure shares broken down by non-food type at national level shows that housing at 26.9 percent represented the largest share. Health had the lowest expenditure share at 0.3 percent. Other notable non-food type expenditure shares included that of Miscellaneous (8.2 percent), Transport (6.5 percent), and Education (6.3 percent), Clothing (3.5 percent) and Communication (3.4 percent). Notably, households spent four times more on alcohol than their health expenditure.

Overall, analysis by residence reflects expenditure pattern similar to that obtaining at national level. Urban households tend to spent more of their household expenditure on non-food compared to their rural counterparts. Both rural and urban households had the largest share of their household expenditure on Housing. Rural households had 17.7 percent of their household expenditure on housing while urban households had 30.4 percent.

In rural areas, households non-food expenditure was notable on miscellaneous (7.6 percent), Education (5.0 percent), Clothing (4.1 percent), Transport (4.1 percent) and Communication (2.2 percent). The lowest expenditure share was on restaurants (0.1 percent).

Analysis of shares of household expenditure in urban areas showed a similar pattern to that of rural households. Nonetheless, households in urban areas had larger shares on Transport (7.4 percent), Education (6.7 percent), Communication (3.8 percent), Recreation (2.4 percent) and Furnishing (1.2 percent) compared to their rural area counterparts.

Table 11.7: Percentage Expenditure Share of Non-Food by Non-Food Type and Residence, Zambia, 2015.			
Expenditure Share	**Zambia**	**Rural**	**Urban**
Total	**100**	**100.0**	**100.0**
Food	**40.3**	**56.3**	**34.2**
Non-food	**59.7**	**44**	**66**
Alcohol	1.3	1.2	1.3
Clothing	3.5	4.1	3.3
Housing	26.9	17.7	30.4
Furnishing	1.1	0.7	1.2
Health	0.3	0.3	0.3
Transport	6.5	4.1	7.4
Communication	3.4	2.2	3.8
Recreation	2.0	0.7	2.4
Education	6.3	5.0	6.7
Restaurants *	0.4	0.1	0.5
MISCELLANEOUS	8.2	7.6	8.4

Figure 11.15: Percentage Expenditure Share of Non-Food by Residence, Zambia, 2015.

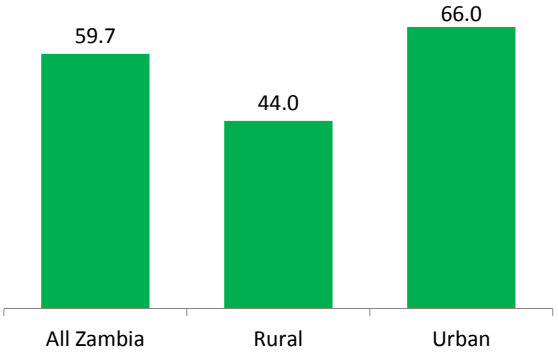
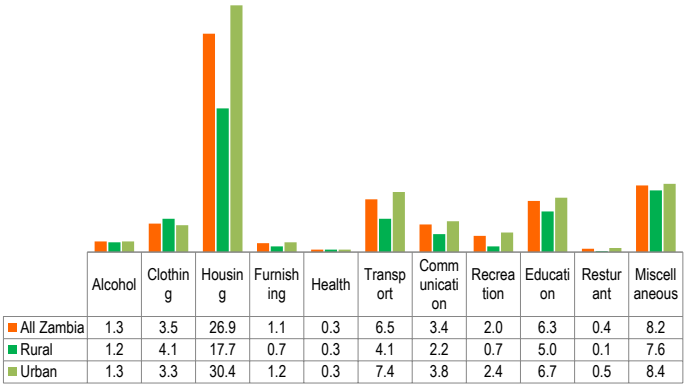


Figure 11.16: Percentage Share of Expenditure on Non-Food by Non-food Type, Residence, Zambia, 2015.



	Alcohol	Clothing	Housing	Furnishing	Health	Transport	Communication	Recreation	Education	Restaurant	Miscellaneous
All Zambia	1.3	3.5	26.9	1.1	0.3	6.5	3.4	2.0	6.3	0.4	8.2
Rural	1.2	4.1	17.7	0.7	0.3	4.1	2.2	0.7	5.0	0.1	7.6
Urban	1.3	3.3	30.4	1.2	0.3	7.4	3.8	2.4	6.7	0.5	8.4

11.9. Percentage Expenditure Share on Non-Food by Non-Food Type and Stratum

Table 11.9 shows the percentage share on expenditure on non-food by non-food type and stratum. Overall, apart from the households in small scale, the rest of the households in the remaining strata spent more on non-food than food expenditure. Households in high cost had the biggest share on non-food (78 percent) compared to the other households in the rest of the strata while households in small scale had the smallest share on non-food at 41.3 percent.

Within the rural strata, households in large scale stratum had the largest share on non-food at 69.7 percent compared to 41.3 percent share households in small scale stratum had. Non-agriculture and Medium Scale households had 55.4 and 52.0 percent, respectively.

The table further shows that within urban strata, households in high cost areas spent 78 percent of their total household expenditure on non-food representing the largest share. Medium and low cost households spent 69.7 and 58.5 percent on non-food items, respectively. Households in low cost areas were 1.2 percentage points below the national average spent on non-food expenditure (59.7 percent).

Figures 11.17 and 11.18 show the percentage share of expenditure on non-food by non-food expenditure type and stratum. Overall, based on expenditure shares, the most important non-food expenditure item was housing claiming the largest share regardless of the stratum. The least important being health. Households in high cost spent 35.8 percent on housing representing the largest proportion among the strata. Less than 1 percent was spent to health regardless of the strata.

Households in large scale (15 percent), high cost (10 percent) and medium cost (8.8 percent) had transport the second largest share of non-food expenditure type compared to the shares by the rest of the strata which had second largest share on miscellaneous expenditure.

Figures 11.19 and 11.10 show that Lusaka (70.6 percent) had the largest share spent on non-food among the 10 provinces. Copperbelt and Southern had the second and third largest shares at 60.5 and 55.7 percent, respectively. Luapula Province had the lowest share at 41.9 percent. Northern Province had the second lowest share at 43.7 percent. However, the share for Eastern (47.0 percent) and North Western (47.1 percent) were marginally different.

Table11.8: Percentage Expenditure Share of Non-Food by Non-Food Type, Stratum, Zambia, 2015.								
Expenditure Share	**Zambia**	**Small Scale**	**Medium Scale**	**Large Scale**	**Non-Agric**	**Low Cost**	**Medium Cost**	**High Cost**
Food	40.3	58.7	48.0	30.3	44.6	41.5	30.3	22.0
Non-food	59.7	41.3	52.0	69.7	55.4	58.5	69.7	78.0
Alcohol	1.3	1.1	0.5	0.6	2.1	1.5	0.9	1.3
Clothing	3.5	4.1	4.6	3.9	3.9	3.4	2.8	3.4
Housing	26.9	17.1	19.5	24.0	21.5	26.6	33.6	35.8
Furnishing	1.1	0.7	0.9	1.2	0.5	0.5	1.0	2.8
Health	0.3	0.3	0.3	0.9	0.2	0.3	0.3	0.5
Transport	6.5	3.7	5.2	15.0	6.3	5.7	8.8	10.0
Communication	3.4	1.8	2.6	4.5	4.4	3.7	4.0	4.0
Recreation	2.0	0.6	1.0	1.5	1.4	1.9	2.7	3.4
Education	6.3	4.4	8.5	10.3	6.9	6.4	7.4	6.9
Restaurants	0.4	0.1	0.2	0.2	0.1	0.1	0.4	1.4
Miscellaneous	8.2	7.4	8.8	7.7	8.1	8.5	7.8	8.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Figure 11.17: Percentage Expenditure Share of Non-Food by Stratum, Zambia, 2015.

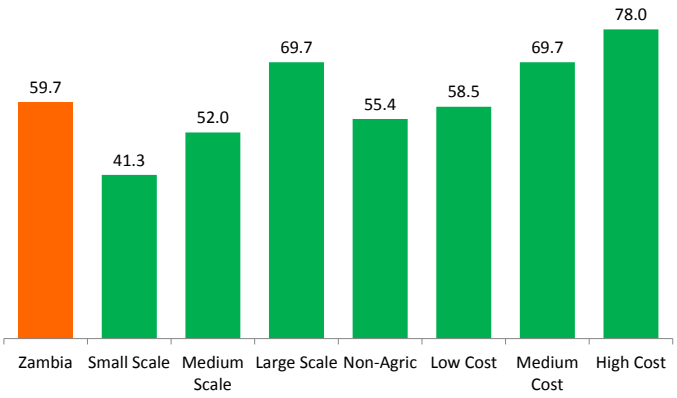
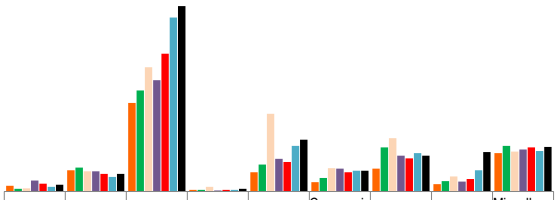


Figure 11.18 Percentage Expenditure Share of Non-Food by Non-Food Type, Stratum, Zambia 2015.



	Alcohol	Clothing	Housing	Health	Transport	Communication	Education	Other*	Miscellaneous
Small Scale	1.1	4.1	17.1	0.3	3.7	1.8	4.4	1.4	7.4
Medium Scale	0.5	4.6	19.5	0.3	5.2	2.6	8.5	2.0	8.8
Large Scale	0.6	3.9	24.0	0.9	15.0	4.5	10.3	2.9	7.7
Non-Agric	2.1	3.9	21.5	0.2	6.3	4.4	6.9	1.9	8.1
Low Cost	1.5	3.4	26.6	0.3	5.7	3.7	6.4	2.4	8.5
Medium Cost	0.9	2.8	33.6	0.3	8.8	4.0	7.4	4.1	7.8
High Cost	1.3	3.4	35.8	0.5	10.0	4.0	6.9	7.6	8.6

Table 11.9: Percentage Share of Expenditure on Non-Food by Non-Food Type, Province,Zambia, 2015.										
Province	**Central**	**Copper-belt**	**Eastern**	**Luapula**	**Lusaka**	**Much-inga**	**Northern**	**North Western**	**Southern**	**Western**
Food	46.6	39.5	53.0	58.1	29.4	49.4	56.3	52.9	44.3	53.3
Non-food	53.39	60.46	46.96	41.90	70.6	50.56	43.68	47.07	55.71	46.68
Alcohol	1.1	1.3	1.1	1.5	1.5	1.1	0.9	0.8	1.0	0.5
Clothing	4.6	3.4	3.7	3.1	3.1	4.5	4.9	3.4	3.9	3.2
Housing	19.5	25.4	18.0	16.5	35.8	19.7	17.8	22.8	23.2	20.4
Furnishing	0.8	1.1	0.7	0.5	1.5	0.8	0.7	0.5	0.6	0.7
Health	0.2	0.4	0.3	0.2	0.3	0.1	0.3	0.1	0.2	0.2
Transport	5.3	7.0	4.3	4.3	8.9	2.8	4.0	2.8	4.3	4.4
Communication	3.5	3.4	2.1	2.2	4.2	2.6	1.9	2.3	3.0	2.4
Recreation	1.6	2.8	1.2	0.9	2.1	1.7	0.9	1.2	2.0	1.1
Education	6.4	6.5	6.1	6.0	5.7	7.7	5.4	4.6	8.4	5.1
Restaurants	0.1	0.2	0.1	0.0	0.8	0.0	0.1	0.0	0.1	0.0
MISCELLANEOUS	10.2	9.1	9.3	6.8	6.7	9.5	6.8	8.5	9.1	8.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Figure 11.19: Percentage Expenditure Share of Non-Food Expenditure by Province, Zambia, 2015.

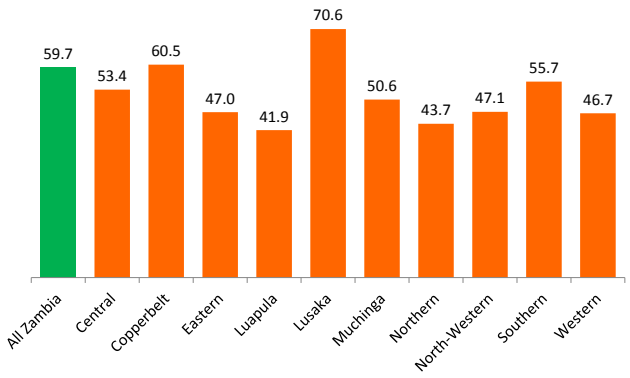
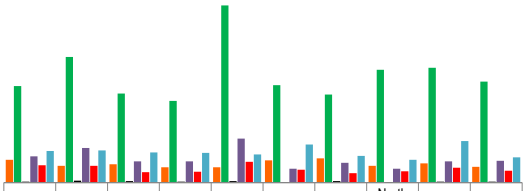


Figure 11.20: Percentage Expenditure Share of Non-Food Expenditure by Selected Non-Food Type Expenditure Item by Province, Zambia, 2015.



	Central	Copperbelt	Eastern	Luapula	Lusaka	Muchinga	Northern	North Western	Southern	Western
Clothing	4.6	3.4	3.7	3.1	3.1	4.5	4.9	3.4	3.9	3.2
Housing	19.5	25.4	18.0	16.5	35.8	19.7	17.8	22.8	23.2	20.4
Health	0.2	0.4	0.3	0.2	0.3	0.1	0.3	0.1	0.2	0.2
Transport	5.3	7.0	4.3	4.3	8.9	2.8	4.0	2.8	4.3	4.4
Communication	3.5	3.4	2.1	2.2	4.2	2.6	1.9	2.3	3.0	2.4
Education	6.4	6.5	6.1	6.0	5.7	7.7	5.4	4.6	8.4	5.1

CHAPTER 12
POVERTY ANALYSIS

12.1. Introduction

One of the major challenges Zambia is facing today is exactly how to reduce poverty and economic inequality among the population. Although there has been a positive turnaround in the economy over the last few years with real GDP growth of more than 5 per cent, the majority of Zambians continue to live in poverty. It is important to note that a large segment of the population has for a long time been exposed to stringent economic reforms as well as unpredictably harsh weather conditions that have increased their vulnerability to poverty over time. The continued exposure to both human and naturally induced economic shocks, such as the cost sharing and market liberalisation economic policies, and the recurring drought spells since the 1990s, has entrenched poverty in the lives of many Zambians. The poverty situation in the country has remained more pronounced in rural than in urban areas mainly on account of recurring drought spells and increased agricultural input costs over time.

In view of the precarious situation of the majority poor, much of the recent Government policies and programs have essentially been articulated in terms of economic growth and poverty reduction. The government has been monitoring the poverty situation in the country using the Living Conditions Monitoring Surveys (LCMS). These surveys actually evolved from the Social Dimension of Adjustment Priority Surveys that were conducted between 1991 and 1993. Hitherto, seven rounds of the LCM surveys have been successfully conducted, starting with the 1996 LCMS. Dating back to the 1990s, levels of poverty have persistently remained above 60 percent even when the country was experiencing sustained high economic growth. Worse still, the poverty levels in rural areas have consistently been higher than 75 per cent, implying that 3 out of every 4 persons in rural areas are poor.

Since 2005, the Zambian economy has continued to register positive real GDP growth of not less than 5 per cent. Much of this economic growth was observed during the implementation of the Fifth National Development Plan (FNDP), which covered the period 2006-2010. However, the economic growth achieved by the country has not necessarily translated into immediate improvement in the well-being of the majority of the population.

The main objective of the FNDP was to reduce poverty through provision of gainful employment especially in key non-mining industries such as agriculture, manufacturing and tourism. However, the slow progress made towards poverty reduction is generating a lot of questions on the type of economic growth the country is experiencing, which has very little impact on poverty reduction. There is also a need to ascertain whether the economic growth the country is experiencing is pro-poor. Pro-poor growth in this context is understood to refer to the type of inclusive growth, which is characterised by progressive redistribution of resources to the poor.

The 2015 LCMS was partly designed to help evaluate the impact of the Sixth National Development Plan (SNDP) and its effect on the well-being of the Zambian population. The main objectives of the SNDP include the following;

- *To accelerate infrastructural development,*
- *To enhance economic growth and diversification,*
- *To promote rural investment and accelerate poverty reduction, and*
- *To enhance human capital development.*

In addition, the 2015 LCMS intended to help assess the progress the country has made towards achieving the Millennium Development Goals (MDG), especially the first MDG of halving 1990 levels of poverty by 2015.

12.2. Objective of the 2015 Poverty Assessment

The main objective of poverty assessment in Zambia is to identify the poor, including where they live. Other objectives include the following:

- *To understand the distribution of poverty in Zambia and across Residence and provinces,*
- *To identify possible correlates of poverty,*
- *To measure the intensity and severity of poverty,*
- *To measure the degree of inequality*
- *To identify the salient characteristics of the poor,*
- *To help monitor and evaluate the impact of Government and its co-operating partners' policies and programmes on the poor, and*
- *To help monitor progress towards the achievement of the SNDP goals and MDG targets.*

It is envisaged that the results from the 2015 poverty analysis will help in effectively directing resources towards the correct target groups and subsequently help accelerate poverty reduction in the country.

12.3 Concepts and definitions used in poverty analysis

The concept of poverty has several definitions mainly because of its multidimensional and complex nature. Thus there is no universally agreed definition of poverty. However, the Living Conditions Monitoring Surveys (LCMS) consider an individual to be poor if he/she suffers some levels of economic and/or social deprivation. Income deprivation is the most commonly used indicator to identify the poor. Many poverty assessments across the world use the Income Shortfall approach when measuring poverty as this concept directly relates to income deprivation (UN Statistics Division, 2005). This approach is in many ways intuitively appealing since the ability to acquire nearly all basic human needs depends on the levels of income a household commands.

The Central Statistical Office (CSO) has adopted the material well-being perception of poverty in which the poor are defined as those members of society who are unable to afford minimum basic human needs, comprising food and non-food items, given all their total income. Although the definition may seem simple, there are several complications in determining the minimum requirements and the amounts of money necessary to meet these requirements. In the LCMS analysis, efforts to determine people's well-being in Zambia have, therefore, concentrated on estimating the aggregate value of all consumption goods and services identified to be critical to the satisfaction of an individual's basic needs. The poor have in this case been identified by comparing their measure of income (i.e., consumption expenditure) to some absolute poverty line. Since 1991, the CSO has been using household consumption expenditure data from the LCMS series when measuring the welfare of the people.

Absolute poverty: uses a poverty line based on a fixed expenditure or consumption level. Absolute poverty lines typically specify the amount of money that is required to meet a minimum standard of living, such as basic nutritional requirements and essential non-food necessities (basic clothing, housing, etc.). In general, the CSO uses the Cost of Basic Needs approach when measuring absolute poverty.

Relative poverty: describes an individual or group's wealth relative to that of other individuals in the group under study. Relative poverty lines are usually set as a percentage of average income or expenditure of the group. Very often two thirds of the mean/median expenditure per capita has been used as a poverty line. This definition implies that all persons or households whose consumption falls below this threshold are considered poor. Some analysts have also used percentile cut-offs to define relative poverty lines at, say, the bottom 20 per cent of individuals in the distribution of income or expenditure. The CSO does not employ relative poverty lines while assessing poverty in Zambia.

12.4 Poverty Assessment Methodology

The CSO has been carrying out comprehensive poverty assessments since 1991. Typically, measurement of poverty has always started with the identification of absolute poverty lines that have a strong nutritional anchor. In the case of Zambia, the CSO has been using a basic food basket as a starting point, which is further supplemented by an allowance for non-food needs (CSO, 2010 Poverty Manual). Much of the poverty assessments in the country have been based on the data from the LCMS rounds. The CSO has successfully conducted seven Living Conditions Monitoring Surveys inclusive of the 2015 one.

12.4.1 Deriving consumption expenditure aggregates

The CSO mainly uses the concept of income deprivation to measure poverty like is the case in other sub-Saharan African Countries. According to this concept, the poor are identified on the basis of the comparison of household disposable income to the cost of the basic needs basket. It is for this reason that this approach of welfare evaluation is in general called the Income Shortfall approach (UN Statistics Division, 2005).

However, because of some well-documented shortcomings of income data, much of the contemporary poverty assessments use household consumption expenditure data as a proxy for household income (Haughton and Khandker, 2009). For both theoretical and practical reasons, consumption expenditure is seen to be much more reliable than income because:

Individuals feel more comfortable to provide information on consumption than income.
Consumption provides a better picture of long-term welfare than income.
Income measurements in countries with widespread informal employment and a large segment of agricultural households are not very accurate compared to expenditure measurements.

The CSO has consistently been using household consumption expenditure as a measure of welfare since 1991. Household consumption expenditure comprises cash purchases (both food and non-food), value of own produce consumption (both food and non-food), value of consumable gifts and derived benefits arising from ownership of durable goods, which are not of intermediate nature (Goods that are not used to generate income).
The 2015 consumption aggregate covers the following broad category of items:

- *Food expenditure*
- *Alcohol and tobacco expenses*
- *Health expenditure*
- *Education expenditure*
- *Housing expenditure*
- *Transport expenditure*
- *Expenditure on personal services*
- *Consumption of services from durable goods*

Furthermore, it has always been a case that some households in the survey will report zero consumption expenditures on certain non-food items when in fact they are also deriving welfare benefits from the consumption of these services such as water, electricity and housing. Take for instance two identical households that are dwelling in identical housing units but only differ in terms of their tenancy status. One household is renting and pays x amount, while the other household is owner-occupier. Since the two households are identical, it is most likely that they are both deriving identical welfare streams (utility) from their housing units except that the later does not pay any rent. Therefore, it is imperative to impute rent values for all the households that had reported zero rent expenditure during the surveys. During the 2015 poverty analysis, imputed use values were estimated in respect of households that had reported zero consumption on rent, water and electricity when in fact they had access to these services (i.e. deriving welfare benefits from the services). The housing rent, water and electricity imputations were made using Hedonic Regression Models, which essentially relate housing rent, water or electricity expenses of households with non-zero expenditure to key covariates mainly consisting of housing, household assets and characteristics, and location variables. The models adopted the following specification:

$$\ln RWE_i = \beta \chi_i + \varepsilon_i \text{ (i=1,2,.....,n)}$$

Where $\ln RWE_i$ is the log of monthly expenditure on **R**ent or **W**ater or **E**lectricity for household i, χ_i is a vector of housing and household characteristics (i.e. building materials used, access to piped water, good sanitation, electricity, ownership of relevant household assets, location dummies, etc.), β is a vector of parameter estimates and ε_i is the error term. For detailed information on these regression-based imputations, refer to section 1.1.2 and, Appendix A and B of the poverty methodology note.

It is also common practice during poverty analysis to impute use-values of household non¬productive durable goods such as television sets, radios, cars, fridges, etc. The 2015 poverty analysis has included for the first time the use-values of these durable goods in the household consumption aggregates as a measure of benefits that households derive from such durable goods that they own. Once again, for detailed information on the estimation of use values of household durable goods, refer to section 1.1.3 and appendix C of the poverty methodology note.

Overall, the emerging consumption aggregate is made of reported as well as imputed consumption of goods and services by households.

12.4.2 Adjustments for Cost-of-Living Differences

Contemporary poverty analysis requires that nominal consumption of households are adjusted for temporal and spatial cost-of-living differences because households at different times and location face different prices for comparable goods and services. In the case of the 2015 LCMS, temporal differences are associated with the duration of the fieldwork, which stretched from April to May 2015 (i.e., ZMW1000 in April 2015 may not have the same purchasing power as in May of the same year). Similarly spatial differences are associated with the location of the respondent household at the time of the survey (i.e., ZMW1000 in Lusaka may not have the same purchasing power as in Northern Province).

The adjustment for temporal cost-of-living differences relies on the monthly Consumer Price Index (CPI) by province. The fieldwork took place over April and May 2015; hence price indices are constructed for each province with that period as the base. Nominal consumption is adjusted according to the month in which households were interviewed. Consumption is thus temporally-adjusted to April/May prices of each province. For detailed explanation on the computation of the spatial price index, refer to section 1.2 and Table 1 of the poverty methodology note.

The adjustment for spatial cost-of-living differences is implemented using price indices constructed by province using data from the CPI rather than from the survey. A Laspeyres spatial price index by province is estimated based on a selection of food and non-food items present in all nine provinces. The weights of the items in the spatial price index correspond to the shares of these items at the national level rescaled to add up to 100[1].

[1]An alternative estimation of the spatial price index using consumption shares from the 2015 LCMS as weights for the broad consumption groups showed only minor differences. The selected reference group to be representative of the poor was the bottom 50% of the population in terms of consumption per adult equivalent. For instance, food accounts for 59% of the spatial basket using CPI weights and 60% using household survey weights.

The base for the spatial price index is All-Zambia during the entire period of the fieldwork: April and May 2015. The average prices by province over the two months are compared with the average national price. Averaging across the fieldwork period is likely to provide a more robust Residenceal ranking of spatial cost-of-living differences than when using a particular month. For detailed explanation on the computation of the spatial price index, refer to section 1.2 and Table 2 of the poverty methodology note.

12.4.3 Concept of Adult Equivalent

Ideally, poverty measurements should be done at the individual level. However, most LCM surveys usually collect consumption expenditure information at the household level rather than at the individual level. Consequently, household consumption expenditure can never constitute a good welfare measure of individuals because families with different household sizes face different consumption needs. Further, different members of the same household have different age-specific energy and protein requirements for them to lead normal active and healthy lives.

A good poverty measure should, therefore, strive to take into account not only the differences in household size but also differences in age composition of the household members. The adult equivalent scale has extensively been used by various poverty analysts, including the CSO, to normalize consumption for differences in household demographic composition (UN Statistics Division, 2005; CSO, 1997 and 2004.) It is for this reason that the CSO uses per adult equivalent monthly expenditure for its poverty analysis rather than per capita monthly expenditure, which assigns equal weight to every household member. Adult Equivalence scales are the factors that convert real household consumption into real individual consumption by correcting for differences in the demographic composition and size of households. The 2015 poverty analysis has maintained the Adult-Equivalence (AE) scale that the CSO has been using since 1991.

Table 12.1: Adult Equivalent Scale that was used to Convert Household Consumption Expenditure into Adult Equivalent Terms, Zambia, 2015.

Age group	Member	Calorie requirements per person	Adult equivalent scale
0-3 years	1	1,000	0.36
4-6 years	1	1,700	0.62
7-9 years	1	2,100	0.76
10-12 years	1	2,150	0.78

Source: NFNC/CSO 1990 Report

12.4.4 Poverty Line Determination

In general, the CSO uses the Cost of Basic Needs (CBN) approach when measuring welfare outcomes of various households (Ravallion, 1994; CSO, 2004). This method essentially starts by determining the cost of a simple food basket that meets minimal nutritional requirements for a family of six. Table 12.2 shows the composition of the basic food basket together with corresponding costs per household as well as in per Adult Equivalent (AE) terms. The cost of the food basket was obtained by price-updating the 1991 food basket, which was constructed by the National Food and Nutrition Commission and Prices and Income Commission (NFNC/PIC), using the April/May 2015 item-specific average prices. The 2015 food basket was valued at K152 per Adult Equivalent (AE); hence the food (extreme line was set at K152. It is obvious that a person cannot live on food alone but also requires other essential goods and services for his or her well-being. In view of these additional requirements, there is need to derive the overall (moderate) poverty line by taking into account these other non-food needs. In the 2015 LCMS report, a non-food poverty line valued at K62 per AE representing an allowance for basic non-food needs was used. This non-food allowance was determined non-parametrically as the average non-food consumption of the population whose total consumption was close to the food poverty line. Refer to the poverty methodology note in the appendices to see the determination of poverty lines.

Table 12.2: Food basket for a Family of Six, Zambia, 2004-2015.

Consumption items	QTY	Unit price 2004	Cost 2004	Unit price 2006	Cost 2006	Unit price 2010	Cost 2010	Unit price 2015	Cost 2015
Cooking oil local 2.5Lt	1	19,628	196,228	17,653	17,653	28,698	28,698	38	38
Dried beans 1kg	2	4,760	9,520	6,041	12,082	8,746	17,492	13	27
Dried bream 1kg	1	21,856	21,856	22,317	22,317	30,522	30,522	68	68
Dried kapenta 1 Kg	2	30,062	60,124	30,336	60,672	49,225	98,450	104	207
Fresh milk 500ml	4	2,005	8,020	2,186	8,744	3,298	13,192	5	20
Onion 1kg	4	3,040	12,160	3,864	15,456	4,765	19,060	10	40
Shelled groundnut 1kg	3	5,425	16,275	5,743	17,229	7,705	23,115	13	39
Table salt 1kg	1	1,880	1,880	2,424	2,424	4,516	4,516	5	5
Tomatoes 1kg	4	1,846	7,384	2,253	9,012	3,073	12,292	5	21
White roller 25kg	3.6	25,220	90,792	26,288	94,637	47,736	171,849	54	194
Vegetables 1kg	7.5	1,437	10,777	2,070	15,525	2,185	16,388	4	29
Total cost			**258,416**		**275,751**		**435,574**		**686**
Poverty lines in adult equivalent (AE) terms AE scale = 4.52									
Food poverty line			**57,172**		**61,007**		**96,366**		**152**
Non food poverty line									**62**
Total (absolute) poverty line			**81,674,.29**		**100,012**		**146,009**		**214**

Source: 2015 CSO/WB Poverty Note

12.4.5 Characterisation of Poverty

In all the poverty assessments that have been undertaken by the CSO, the food poverty line, equivalent to the cost of the food basket, relates to the Extreme Poverty Line, while the basic needs basket, which corresponds to the overall poverty line, represents the Moderate Poverty Line. Based on these poverty lines, individuals are then classified as extremely, moderately or non-poor. All persons whose per adult equivalent consumption is less than the Extreme Poverty Line are classified as Extremely Poor. Conversely, the moderately poor comprise individuals whose per adult equivalent consumption is greater or equal than the food poverty line (extreme line) but falls below the Moderate Poverty Line. Finally, an individual is classified as Non-poor if his/her per adult equivalent consumption is greater or equal to the Moderate Line.

12.5 Foster-Greer-Thorbecke (FGT) poverty measures

The Foster-Greer-Thorbecke (FGT) poverty measures summarise information on the prevalence, depth and severity of poverty (Foster, Greer, Thorbecke, 1984). The P-alpha class of poverty measures developed by these poverty analysts were used in the 2015 LCMS report to compute the headcount ratio ($P\alpha = 0$), the poverty gap ($P\alpha = 1$) and the severity of poverty ($P\alpha = 2$). $P\alpha = 0$, which shows the incidence of poverty, is the most widely used indicator of poverty. It estimates the proportion of total households or population that are poor. Alternatively, it measures the percentage of the population whose expenditure falls below the moderate (Overall) poverty line. The headcount poverty measure is primarily used for making welfare comparisons across different periods and Residences. This is the most widely used indicator in identifying vulnerable target groups requiring various forms of interventions to reduce poverty.

The shortcoming of the headcount index is that it may remain the same even when the depth and severity of poverty are rising. The intensity of poverty is measured by the poverty depth index represented by $P\alpha = 1$. This index measures the average difference between the poverty line and the actual income/expenditures of each person/household. This measure of poverty is sometimes called the Per Capita Aggregate Poverty Gap Ratio (PCAPGR). The index is useful in suggesting the amount of money that would be required (under the assumptions of perfect targeting of the poor) in order to eradicate poverty. On the other hand, $P\alpha = 2$ is a measure of the square of the intensity of poverty. It measures the severity of poverty or income inequality among the poor themselves by giving greater weight to those further down the poverty line.
The FGT poverty measure takes the following form:

$$P_\alpha = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{z - y_i}{z}\right)^\alpha$$

Where:
n = the population size
q = the number of poor people
Z = the poverty line
y_i= consumption per adult equivalent, and
α = Poverty Aversion Parameter
In summary, the FGT poverty measure becomes the Poverty Headcount Ratio (P0) when $\alpha=0$, the Poverty Gap Ratio (P1) when $\alpha = 1$, and the Poverty Severity Index (P2) when $\alpha = 2$. It is important to note that the Poverty Gap Ratio (P1) and the Poverty Severity Index (P2) not only meet the focus axiom but also meet the monotonicity and weak transfer axioms of a good poverty

measure (Kakwani, 2003; Sen, 1976; Ravallion, 2016). P1 measures how far below the poverty line the poor are, while P2 measures resource inequality among the poor.

12.6 Improvements to poverty measurement methodology

The poverty estimation method used in this analysis is similar to the one applied in 2006 and 2010. However, some improvements have been incorporated in the measurement of poverty in 2015 by way of integrating some of the internationally recommended best practice guidelines of poverty estimates.

The following are some of the improvements that have been incorporated in the estimation of poverty for 2015:

- *Use of Computer Assisted Personal Interview (CAPI) technique to collect household consumption data.*
- *Inclusion in the consumption aggregate of the benefits households derive from owning and using household durable goods.*
- *Use of Temporal and Spatial prices for cost of living adjustments.*
- *Improvement in the estimation of the moderate (overall) poverty line by strictly applying the Lower bound method (Deriving the moderate poverty line by diving the Food line by 2 – Engel Ratio),*
- *Imputation of water and electricity expenses for households that had reported zero water and electricity expenses, and*
- *Exclusion of remittances and other lumpy expenditures such as hospitalisation and funeral expenses, etc.*

Table 12.3 below shows the improvements to poverty measurement in 2015 that the CSO has made relative to the 2010 poverty analysis. The CSO has improved its poverty measurement methodology by incorporating some of the best practice guidelines aimed at producing reliable and time-consistent poverty estimates. These improvements entail that the 2015 poverty estimates are not directly comparable to the 2010 official poverty estimates.

Table 12.3: Improvements to the Poverty Estimation Methodologies between, Zambia, 2010 and 2015.

Issue	CSO methodology - LCMS 2010 report	CSO/WB methodology-LCMS 2015 report
Food basket	A 1991 food basket set by the NFNC and the PIC	A 1991 food basket set by the NFNC and the PIC
Update of poverty line over time	1991 benchmark food basket updated using food item-specific national median prices of December 2009	1991 benchmark food basket updated using food item-specific national median prices of March/April 2015
Temporal/Spatial price deflators	No temporal and spatial price adjustments to reflect differences in cost of living across time and space	Temporal and spatial price adjustments to reflect differences in cost of living across time and space
Composition of Consumption aggregates	Includes remittances and lumpy expenses	Excludes remittances and lumpy expenses
	Includes actual housing expenditures on water and electricity	Includes actual and imputed housing expenditures on water and electricity
	Excludes stream of services from owning durable goods	Includes stream of services from owning durable goods
Deriving the Moderate (Overall) Poverty line using Engel Ratio (Food Share)	Ratio between the food poverty line (FL) and the food share of the population with total per adult equivalent consumption close to the food poverty Line (ER). Moderate line = FL/ER	Product of the food poverty line (FL) and the difference between 2 and the food share of the population with total per adult equivalent consumption close to the food poverty Line (ER). Moderate line = FL*(2-ER)

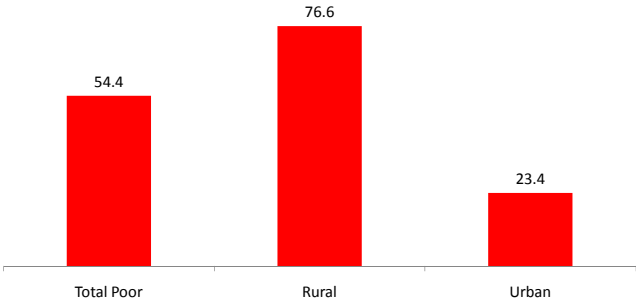
With these improvements in the poverty estimation methodology, comparison of 2010 and 2015 results may not be straightforward.

12.7 2015 Poverty Results

12.7.1 Incidence of poverty by Residence

Figure 12.1 shows the incidence of poverty by Residence. At national level, the incidence of poverty was estimated at 54.4 percent. This implies that 54 out of every 100 Zambians are poor. Analysis of the 2015 LCMS results by rural-urban reveals that poverty in Zambia has continued to be more of a rural than an urban phenomenon. The proportion of the population that is poor in rural areas had almost remained at the 2010 level of about 76 percent. In 2015 rural poverty was estimated at 76.6 percent, which is three times higher than what was obtaining in urban areas, at 23.4 percent.

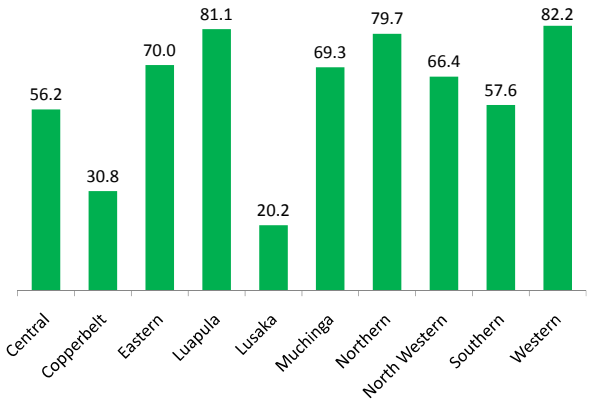
Figure 12.1: Incidence of Poverty by Residence, Zambia, 2015.



12.7.2 Incidence of Poverty by Province

Figure 3 shows the incidence of poverty by province. The results show that in 2015, Western Province had the highest proportion of the poor population at 82.2 percent, closely followed by Luapula Province with 81.1 percent and Northern Province with 79.7 percent. This implies that almost 80 out of 100 in Western, Luapula and Northern Provinces were poor compared to about 20 and 31 out of every 100 Zambians in Lusaka and Copperbelt Provinces, respectively. By contrast, Lusaka and Copperbelt Provinces had the lowest proportions of the poor population at 20.2 and 30.8 percent, respectively.

Figure 12.2: Incidence of Poverty by Province, Zambia, 2015.

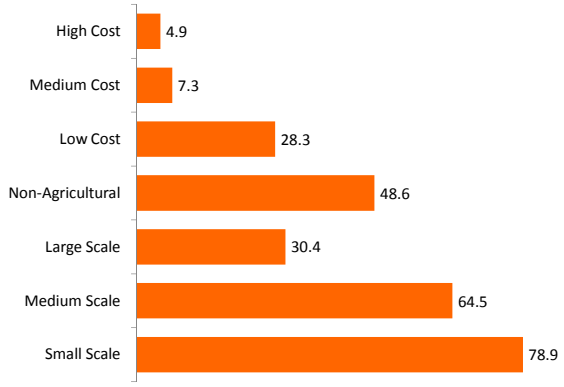


12.7.3. Incidence of Poverty by Stratum

During the 2015 LCMS, all rural and urban households were explicitly stratified into groups based on the scale of their agricultural activities and type of residential area. Rural households were classified as Small, Medium, Large Scale farming and non-agriculture households. In case of households residing in urban areas, the survey adopted the classification system used by the Local authorities (Low, Medium and High cost residential areas).

Figure 12.3 Reflects poverty status by stratum in 2015. In rural areas, the incidence of poverty was highest amongst small scale farmers at 78.9 percent, followed by medium scale farmers at 64.5 percent and non-agricultural households at 48.6 percent. The incidence of poverty was lowest among large scale farmers at 30.4 percent. In the case of urban areas, the highest level of poverty was recorded amongst households residing in low cost housing areas, at 28.3 percent and lowest among households residing in high cost areas, at 4.9 percent.

Figure 12.3: Poverty Status by Stratum, Zambia, 2015.



12.7.4 Incidence of Extreme and Moderate Poverty

Figure 12.4 shows the percentage distribution of the population by poverty status. Results show that 40.8 percent of the Zambian population were extremely poor while 13.6 percent were moderately poor. On the other hand, the Non-poor accounted for 45.6 percent of the population. The overall poverty rate is therefore obtained by summing up the extreme and moderate poverty rates.

Figure 12.4: Percentage Distribution of the Population by Poverty Status, Zambia, 2015.

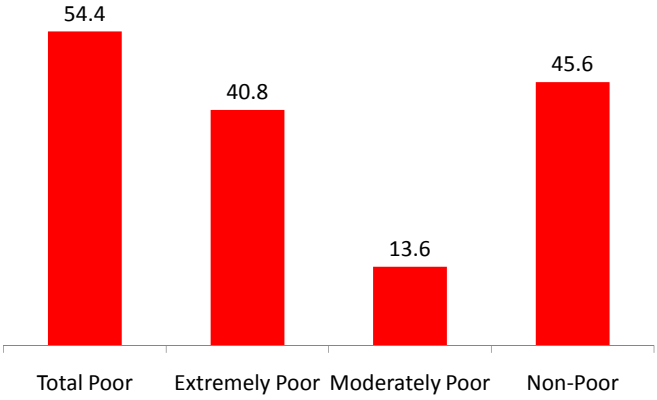


Figure 12.5 shows the levels of extreme and moderate poverty in rural and urban areas of Zambia. Results indicate that the majority of the rural poor were afflicted by extreme levels of poverty compared to their urban counterparts. Extreme poverty implies failure to meet the cost of the basic food basket. The incidence of extreme poverty in rural areas, at 60.8 percent was 5 times that obtaining in urban areas, at 12.8 percent. The moderately poor were estimated at 15.8 percent in rural areas and 10.6 percent in urban areas.

Figure 12.5: Percentage Distribution of the Population by Poverty Status and Residence, Zambia, 2015.

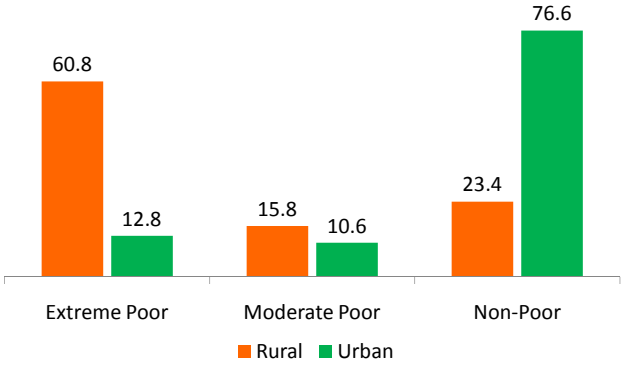


Figure 12.6 shows levels of extreme poverty by province. Provinces that are predominantly rural have continued to have higher proportions of the extremely poor population compared to the most urbanised provinces such as Lusaka and Copperbelt. Western Province at 73 percent had the highest proportion of the extremely poor population, followed by Luapula and Northern provinces, at 67.7 and 67.6 percent, respectively. In contrast, the levels of extreme poverty were as low as 11.0 and 18.2 percent for Lusaka and Copperbelt provinces.

Figure 12.6: Incidence of Extreme Poverty by Province, Zambia, 2015.

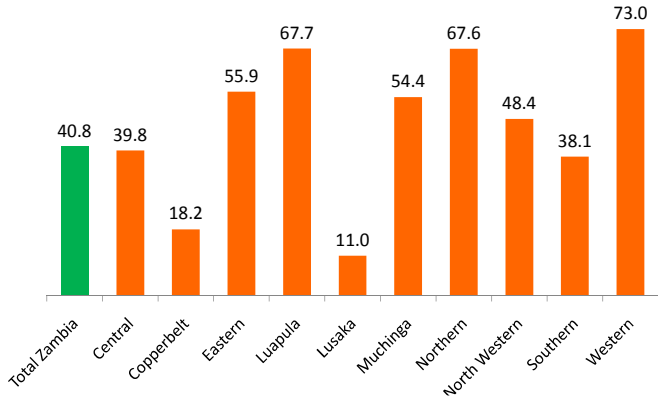


Figure 12.7 shows the levels of moderate poverty by province. Southern and North-Western provinces recorded the highest proportions of the moderately poor population, at 19.5 and 18 percent respectively. Western and Lusaka provinces had the lowest proportions of the moderately poor population, at around 9 percent each. Copperbelt, Luapula, Lusaka, Northern and Western provinces had lower than the national average levels of moderate poverty.

Figure 12.7: Distribution of the Moderately Poor Population by Province, Zambia, 2015.

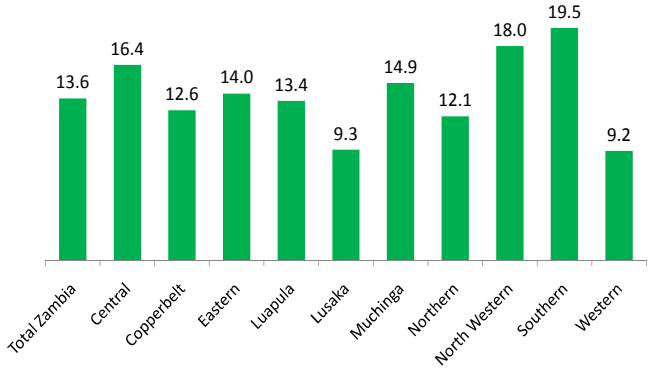


Figure 12.8 shows the incidence of extreme poverty by stratum. In rural areas, the incidence of extreme poverty was highest amongst small scale farmers at 63.6 percent, followed by medium scale farmers at 39 percent and non-agricultural households at 33.8 percent. The incidence of extreme poverty was lowest among large scale farmers at 19.4 percent. The highest level of extreme poverty in urban areas was observed amongst households residing in low cost areas, at 15.8 percent and lowest among households residing in high cost areas, at 2.0 percent.

Figure 12.8: Changes in Extreme Poverty Across Stratum, Zambia, 2015.

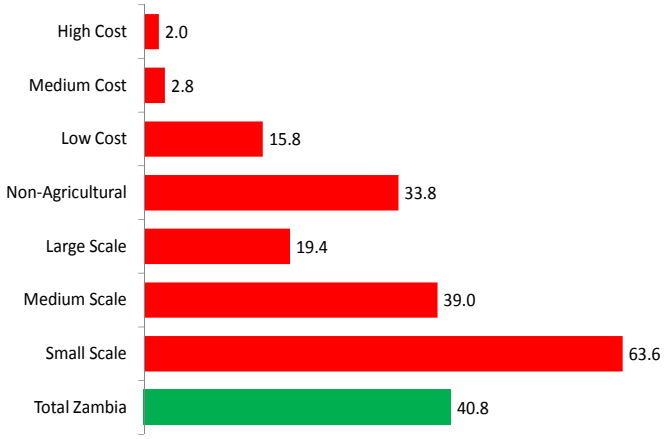
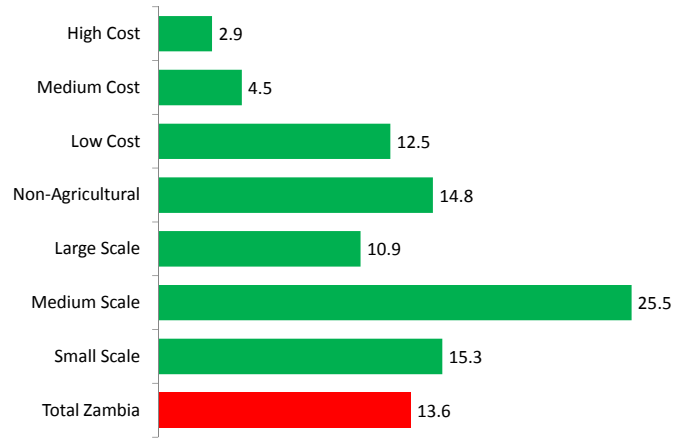


Figure 12.9 shows the incidence of moderate poverty by stratum. In rural areas, the incidence of moderate poverty was highest amongst medium scale farmers at 25.5 percent, followed by small scale farmers at 15.3 percent and non-agricultural households at 14.8 percent. The incidence of moderate poverty was lowest among large scale farmers at 10.9 percent. Contrastingly in urban areas, the highest level of moderate poverty was recorded amongst households residing in low cost areas, at 12.5 percent and lowest among households residing in high cost areas, at 2.9 percent.

Figure 12.9: Changes in Moderate Poverty Across Strata, Zambia, 2015.



12.8. Poverty and Household Characteristics

This section looks at how poverty varies by household size, sex, age, education and economic activity status of the household head. Various studies have shown that household's vulnerability to poverty, to a great extent, varies according to the dimensions of these socio-economic characteristics of the household.

12.8.1 Poverty by Sex of Household Head

Figure 12.10 shows the level of poverty by sex of household head. The results at national level indicate higher levels of poverty for households that are female headed at 56.7 percent compared to those headed by their male counterparts at 53.8 percent. Further, there were proportionately more extremely poor persons in female headed households (42.9 percent) than in male headed households. The level of moderate poverty was almost the same for the male and female headed households. The proportion of the non-poor among the male headed households was 2.9 percentage points higher than that of female headed households, at 46.2 percent compared to 43.3 percent for households headed by a female.

Figure 12.10: Poverty Status by Sex of Household Head, Zambia, 2015.

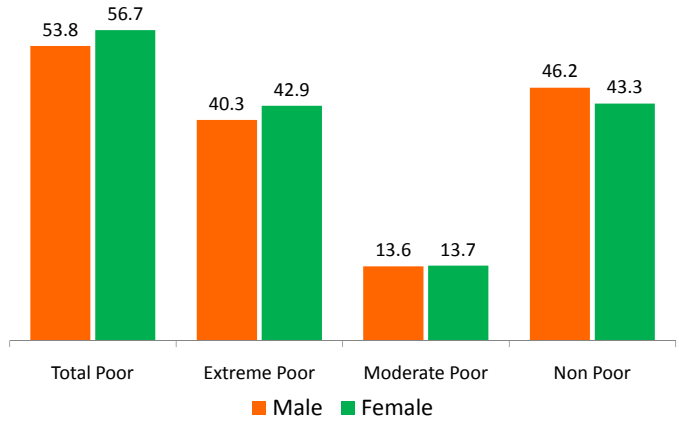


Figure 12.11 shows the distribution of rural population by poverty status and sex of household head. The figure depicts higher levels of poverty in rural areas among female than male headed households. The overall poverty levels among households with female heads was 78.9 percent compared to 76 percent among households with male heads. The poverty distribution pattern was similar among households considered extremely poor with female headed households recording 5 percentage points more than households headed by their male counterparts at 64.9 and 59.9 percent respectively. On the contrary, the incidence of moderate poverty was highest among male headed households, at 16.1 percent than among female headed households, at 14 percent.

Figure 12.11: Rural Poverty Distribution by Sex of Household Head, Zambia, 2015.

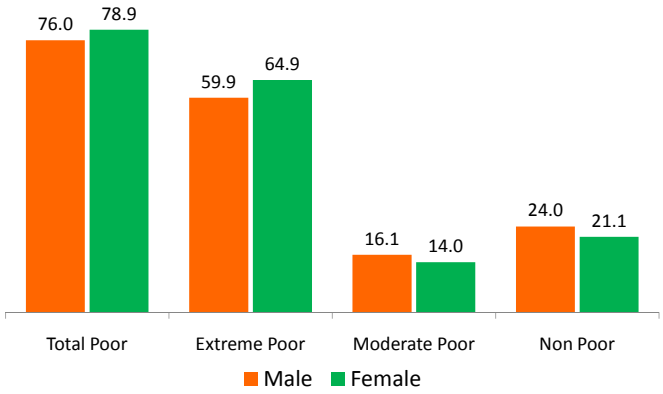
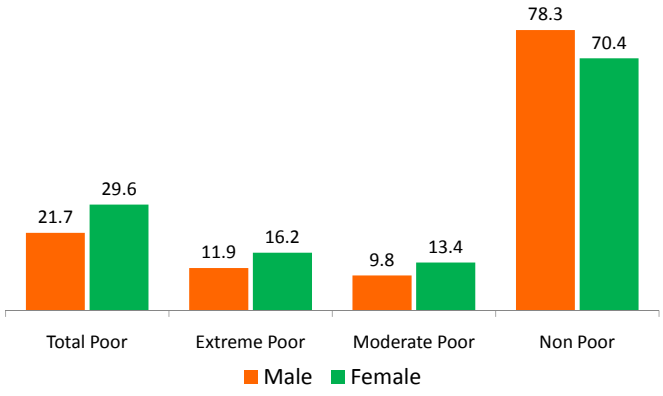


Figure 12.12 shows the distribution of urban population by poverty status and sex of household head. The figure depicts relatively higher levels of poverty among female than male headed households. The overall poverty levels among households with female heads was 29.6 percent compared to 21.7 percent for households with male heads. The figure further show that there were proportionately more extremely and moderately poor persons in female than in male headed households.

Figure 12.12: Urban Poverty Distribution by Sex of Household Head, Zambia, 2015.



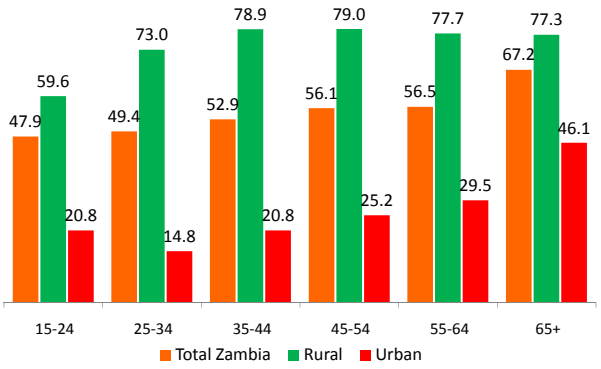
12.8.2. Poverty Distribution by Age-Group of Household Head

Figures 12.13 shows poverty levels by age group of household head and Residence. At national level, the incidence of poverty tend to increase as the age of the household head increases. The age group with the lowest poverty incidence was that headed by individuals aged 15-24 years at 47.9 percent while households headed by individuals aged 65+ years had the highest poverty rates at 67.2 percent.

In rural areas, the level of poverty progressively increases and peak at about 79 percent among households headed by persons falling in the age range 35 to 54 years. Despite a marginal decline in the rate of poverty beyond the age of 54, the poverty levels still remain high the older the head of household.

Notably, households in urban areas tend to have lower incidences of poverty regardless of the age-group of the head of the household when compared with their rural counterpart. The households with the lowest poverty rates are those headed by individuals aged 25-34 years while the highest poverty rates were recorded among households headed by individuals aged 65+ years.

Figure 12.13: Headcount Poverty by Age of Household Head and Residence, Zambia, 2015.



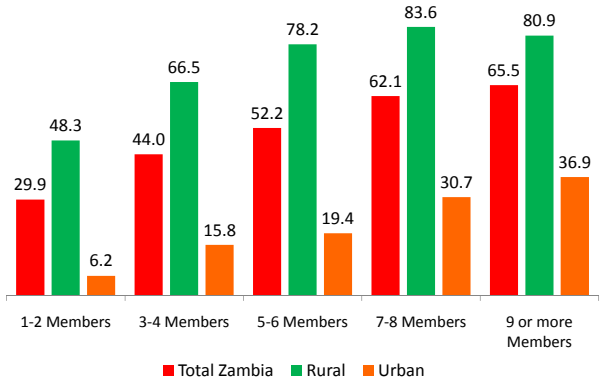
12.8.3. Poverty and Household Size

Figure 12.14 shows head count poverty by size of household and Residence in 2015. Overall, the results show that the incidence of poverty increases as the size of the household increases. At national level, poverty rate more than doubles as the size of the household reaches 7 and over members. The highest poverty incidence rate occurs for household composed of 9+ members, at 65.5 percent while the lowest levels are associated with 1-2 member households.

Analysis by rural-urban shows that poverty levels in rural areas follow a similar pattern to those in urban areas where household size is concerned. In general, the levels of poverty in rural areas in Zambia tend to be very high. However, it is interesting to note that poverty incidence go down marginally in rural areas as the household size becomes larger than 8 members.

In urban areas, poverty rates increase progressively with every increase in the size of household, from 6.2 percent to 36.9 percent for 1-2 and 9+ members of household. This represents a six-fold increment in poverty for larger households.

Figure 12.14: Headcount Poverty by Size of Household and Residence, Zambia, 2015.



12.8.4 Poverty and Education Level of Household Head

Figure 12.15 Shows headcount poverty by level of education attained by the head of household. Education plays a very fundamental role in people's livelihoods. Results reveal declining levels of poverty the higher the education level attained by the head of the household.

In both rural and urban areas, poverty levels were higher among households headed by persons with no education and primary education and lowest among households headed by persons with tertiary education. Notably, about 19 percent of persons found in rural households headed with persons with tertiary education were poor compared to about 3 percent in urban households.

Figure 12.15: Headcount Poverty by Education Level of Head and Residence, Zambia, 2015.

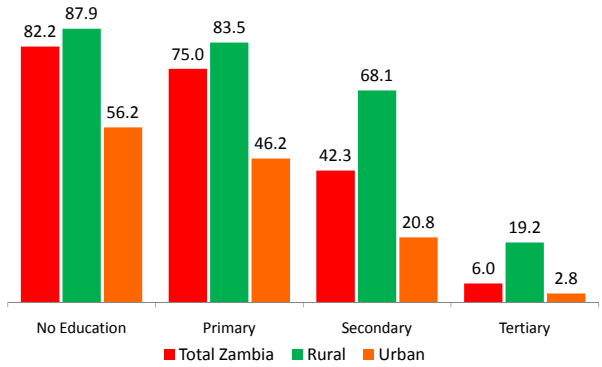
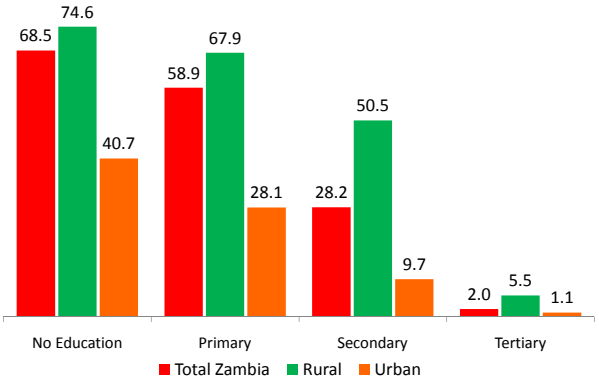


Figure 12.16 shows the level of extreme poverty by level of education attainment of the household head and Residence. Generally, the results show that the extreme poverty levels tend to decline the higher the level of education attained by the head of the household. At national level, poverty was highest among households headed by persons with no education (68.5 percent) and

lowest among households headed by persons with tertiary education, at 2 percent. Rural-urban analysis depicts a similar poverty pattern to that observed at national level.

Figure 12.16: Extreme Poverty by Education Level of Head and Residence, Zambia, 2015.



12.8.5 Poverty and Employment Status of Household Head

Figure 12.17 shows the levels of poverty by employment status. Results reflect higher levels of poverty among households headed by persons that were engaged in farming/fishing/forestry activities, at 80.3 percent, followed by those engaged in piece worker or unpaid family work, at 61.4 percent. Low levels of poverty were observed among households headed by persons engaged in wage employment (17.2 percent) and self-employment (34.0 percent). In urban areas, poverty was highest among households headed by persons engaged in unpaid family or piece work and farming/fishing/forestry, with more than 50 percent of the poor. In the case of rural areas, high levels of poverty were observed among households headed by persons engaged in farming/fishing/forestry, followed by the unemployed and unpaid or piece worker.

Figure 12.17: Headcount Poverty by Employment Status of Head and Residence, Zambia, 2015.

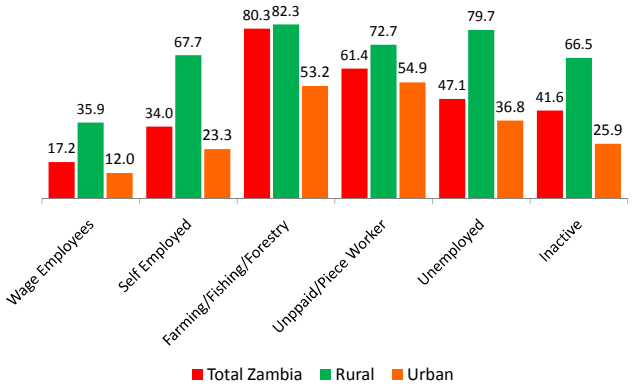
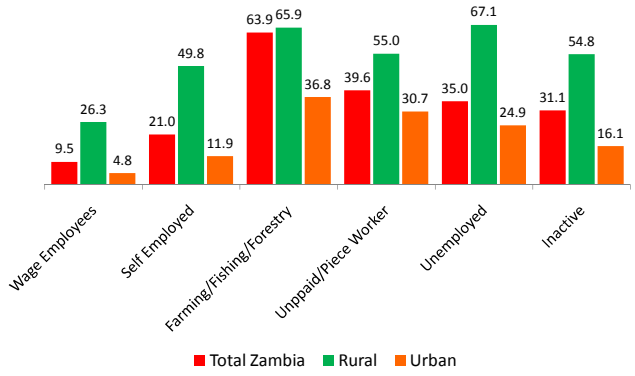


Figure 12.18 shows the levels of extreme poverty by employment status and Residence. At national level, higher extreme poverty rates of more than 60 per cent were observed among households headed by persons who were involved in farming, followed by persons engaged in unpaid or piece work, at 39.6 percent.

In rural areas, save for households whose head was in wage employment, households headed by persons in self-employment, farming/fishing/forestry, unpaid/piece workers, unemployed and inactive were associated with high levels of extreme poverty; especially households that were headed by persons engaged in farming/fishing/forestry and the unemployed. In urban areas, households whose heads were engaged in farming/fishing/forestry, unpaid or piece work, including those who were unemployed had higher extreme poverty rates of 36.8, 30.7 and 24.9 percent, respectively.

Figure 12.18: Extreme Poverty by Employment Status of Head and Residence, Zambia, 2015.

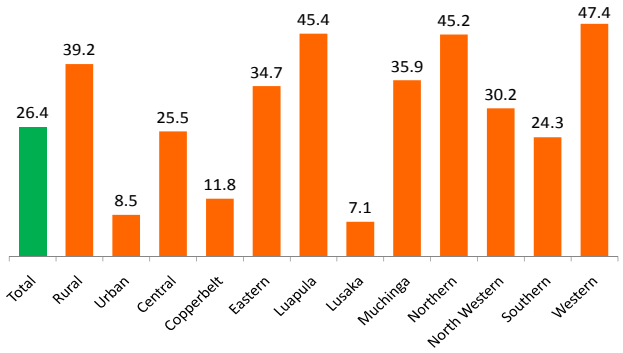


12.9 The Poverty Gap Ratio

Another welfare indicator that has gained prominence in contemporary poverty analysis is the Poverty Depth Ratio, which is also known as the Per Capita Aggregate Poverty Gap Ratio. This indicator not only identifies the poor but also shows us how far below the poverty line the poor are. It also gives an indication of the resources that would be required if all the poor were to be brought onto the poverty line. The wider the poverty gap, the wider the financing gap and consequently, the more the resources that would be required to finance poverty reduction.

Figure 12.19 shows the poverty gap ratio by province and Residence. Overall, the poverty gap ratio was estimated at 26.4 percent. The poverty gap ratio in rural areas (39.2 percent) was nearly 5 times that of urban areas (8.5 percent). Poverty depth had remained much deeper in Western, followed by Luapula and Northern provinces. Lusaka and Copperbelt provinces had the lowest poverty gap ratios of 7.1 and 11.8 percent, respectively.

Figure 12.19 Poverty Gap Ratio by Province and Residence, Zambia, 2015.



12.10 Contribution to Total Poverty

Figures 12.20 shows the contribution of the rural and urban population to overall poverty. Rural population contributed 82.1 percent towards overall headcount poverty, while the urban population only contributed 17.9 percent.

Figure 12.20: Percentage Contribution to Total Poverty by Residence, Zambia, 2015.

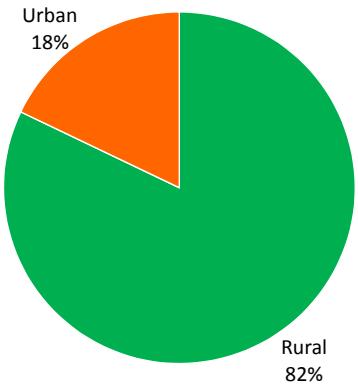
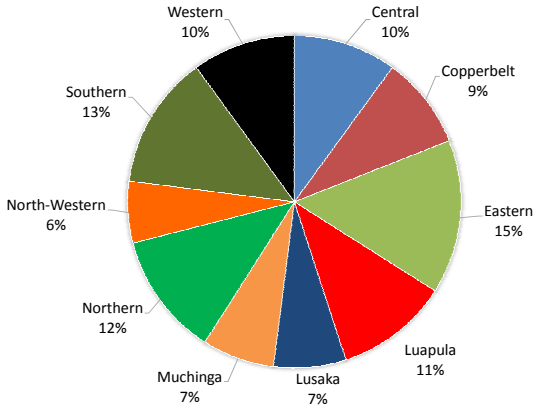


Figure 12.21 shows the contribution to overall poverty by province. Results show that Eastern province had the highest contribution to overall poverty, at 15 per cent, followed by Southern Province at 13 per cent and Northern Province at 12 per cent. Central and Western provinces contributed 10 percent to overall poverty each. Copperbelt Province contributed 9 percent while Muchinga and Lusaka contributed 7 percent each and North-Western contributed 6 percent.

Figure 12.21: Provincial Contribution to Poverty, Zambia, 2015.



12.11 Poverty Trends 2010 - 2015.

There has been a number of improvements in the method used to measure poverty during the 2015 poverty analysis. These improvements over the 2010 poverty methodology are well documented in section 12.6 of this chapter.

Figure 12. 22 shows the trend in the poverty status of the population between 2010 and 2015. The proportion of the population considered poor at national level has reduced by 6.1 percentage points from 60.5 in 2010 to 54.4 percent in 2015. Further, between 2010 and 2015, the proportion of the population that was be extremely and moderately poor reduced by 1.5 and 4.6 percentage points, from 42.3 to 40.8 percent and 18.2 to 13.6 percent, respectively. The proportion of the population that was non-poor increased from 39.5 percent in 2010 to 45.6 percent in 2015

Figure 12.22: Poverty Trends, Zambia, 2010 - 2015.

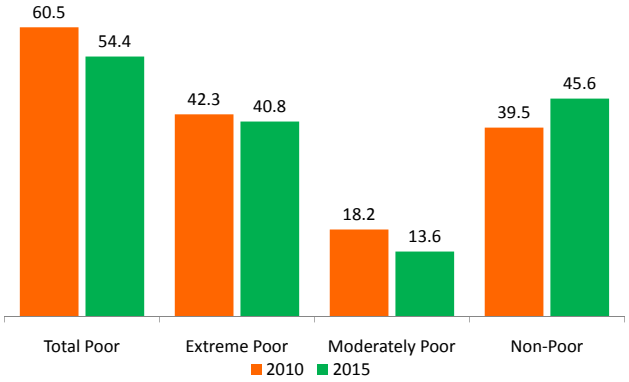


Figure 12.23 shows the poverty trends between 2010 and 2015 by Residence. As stated earlier, poverty in Zambia has continued to be more of a rural than an urban phenomenon. Between 2010 and 2015 rural poverty marginally declined from 77.9 percent in 2010 to 76.6 percent in 2015. This implies that almost 3 out of every 4 persons in rural areas were poor. However, in urban areas, poverty levels dropped from 27.5 percent in 2010 to 23.4 percent in 2015, representing a 4.1 percentage point reduction in poverty.

Figure 12.23: Poverty Trends by Residence, Zambia, 2010 - 2015.

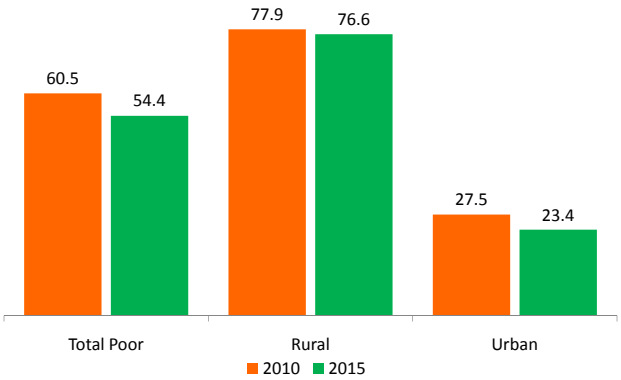
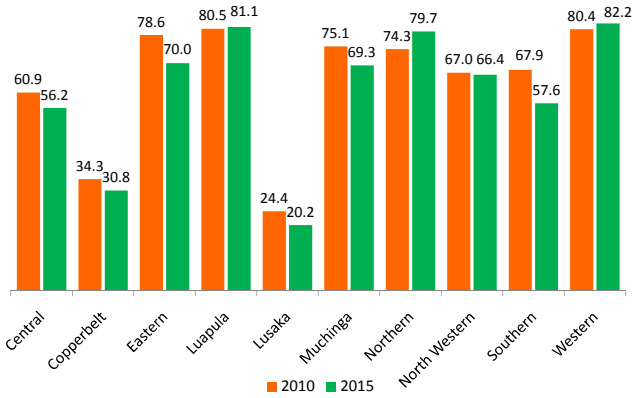


Figure 12.24 shows poverty trends between 2010 and 2015 by province. During the reference period, all the provinces recorded some decline in poverty except Northern, Western and Luapula provinces. Notably, Southern and Eastern provinces recorded significant reductions in poverty of more than 5 percentage points whilst Northern followed by Western province recorded some increases in the incidence of poverty by 5.4 and 2.2 percentage points, respectively.

During the period under review, poverty levels remained persistently high (over 70 percent) in Western, Luapula, Northern and Eastern provinces.

Figure 12.24: Poverty Trends by Province, Zambia, 2010-2015.



12.14. Changes in expenditure inequality

12.14.1. The Gini Coefficient as a measure of inequality

Zambia has one of the highest inequality indexes in Sub-Saharan Africa. This is partly due to the huge gap that exists between the rural and urban areas of the country. Much of the gainful economic activities in the country are concentrated along the line of rail, specifically in the highly urbanised Copperbelt and Lusaka provinces. The rest of the country is fairly underdeveloped and its labour is mainly dependent on subsistence agriculture. Therefore, the high expenditure inequality index of over 50 per cent, as measured by the Gini coefficient. The main problem that high expenditure inequality causes in the development agenda of poverty reduction is that it erodes all the gains that are associated with income or economic growth. Therefore, in order for economic growth to be good for the poor, it should be accompanied by progressive redistribution of income towards the poor in society.

There are several measures of inequality that have been seen in action over the last four decades. Nevertheless, the most widely used measure of inequality is the Gini coefficient (G). This report has settled for the Gini coefficient because it is one of the direct measures of expenditure differences that pass the Pigou-Dalton transfer condition. The Pigou-Dalton transfer condition requires that the Gini coefficient decreases whenever there is a transfer from a richer person to a poorer person (Walters, 2008).

Mathematically, the Gini coefficient is about one half of the relative mean difference, which is defined as the arithmetic average of the absolute values of differences between all pairs of income. This study has adopted this definition when computing the Gini coefficient using the Statistical Analysis System (SAS).

The formulae for the Gini coefficient can be presented as follows (Walters, 2008):

$$G = \left(\frac{1}{2}n^2\mu \sum_{i=1}^{n}\sum_{j=1}^{n}|y_i - y_j|\right)$$

Where:
G = the Gini coefficient
n = the number of persons in a distribution
μ = average consumption per person
$|y_i - y_j|$ = absolute difference in adult equivalent consumption.

Using the stated formula, the Gini coefficients were computed at region, province and residence.

Furthermore, the Gini coefficient, as a measure of inequality, can be derived directly from the surface areas of the Lorenz curve. In this case, it is simply the ratio of the area between the line of complete equality and the emerging Lorenz curve, when cumulative proportionate incomes are plotted against the cumulative proportionate population. Hence the Gini coefficient is given by:

G = A / (A+B)

The Gini coefficient always ranges from 0 to 1. A coefficient of 0 represents total equality in consumption distribution, while a coefficient of 1 represents total inequality. A coefficient such as 0.66 can be considered to represent a high incidence of inequality in income distribution, while a coefficient such as 0.15 represents a more equitable income distribution.

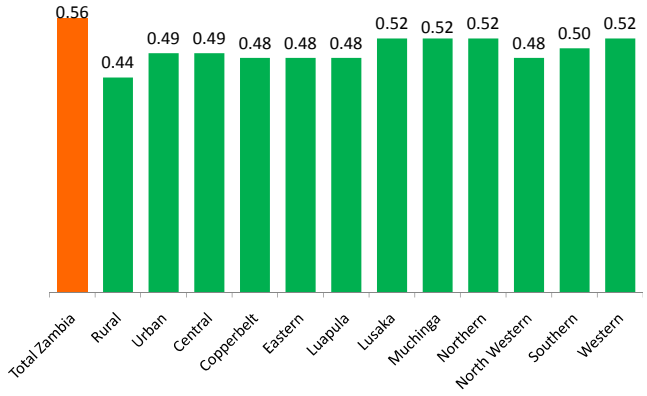
12.14.2. Inequality results based on Per Capita Expenditure Gini Coefficient

Figure 12.25 show trends in the level of inequality as measured using the Gini coefficient. This report opted to use per capita household expenditure as opposed to per adult equivalent expenditure. Overall, the level of inequality is still very high in Zambia. In 2015, the Gini coefficient was over 0.57, an indication that expenditure has continued to be unevenly distributed among the population. Further,

the Gini Coefficient in rural was 0.45 while that for the urban areas was 0.49. This implies expenditure inequalities were more pronounced in urban areas at 0.49 than in rural at 0.45.

Analysis by province shows that Lusaka, Muchinga, Northern and Western provinces all had the same highest Gini Coefficient score of 0.52. This was followed by Southern Province at 0.50. Copperbelt, Eastern and North-Western provinces had the lowest Gini Coefficient score at 0.48.

Figure 12.25: Gini Coefficients by Residence and Province, Zambia, 2015.



12.15. Conclusions

In conclusion, the current poverty analysis clearly indicates that poverty levels in Zambia are still very high despite recording some decline between 2010 and 2015. It is clear from these findings that poverty has continued to be more of a rural than an urban phenomenon. This is more the case in the predominantly rural provinces such as Western, Luapula, Northern and Eastern provinces. The majority of the poor have continued to face extreme levels of poverty particularly in rural parts of the country. Households headed by females are more likely to be impoverished than their male counterparts. Levels of poverty are more likely to be higher among households that are headed by elderly persons. Education and wage employment reduces the risk of becoming poor. Furthermore, the Poverty Gap Ratio in rural areas, especially in remote provinces, has continued to be wide despite recording some reduction over time. The level of expenditure inequality is very high especially in urban areas.

CHAPTER 13
SELF-ASSESSED POVERTY AND COPING STRATEGIES

13.1 Introduction

Poverty is generally measured based on either money metric measures using data on income or household expenditure, or measured based on ownership of assets, both productive and household. However, these measurements do not reflect the different dimensions and characteristics of poverty according to people's perceptions. The 2015 LCMS collected data on self-assessed poverty, a subjective measure of poverty based on the perception of the household. Households were asked to specify their poverty status across three possible categories, Very Poor, Moderately Poor or Non-Poor. This information is meant to complement other measures of poverty, obtained using money metric measures, and provide some context to the overall picture of poverty in Zambia. Households were also asked to indicate how they cope in times of economic hardship. The coping strategies employed by households will help to portray a picture of the vulnerability to poverty.

This chapter presents the results of the survey pertaining to:

- *Self-assessed poverty status of households*
- *Reasons for households' perceived poverty status*
- *Household welfare comparisons*
- *Average number of meals consumed by a household in a day*
- *Household coping strategies.*

13.2. Self-Assessed Poverty

Table 13.1 shows the percentage distribution of households by self-assessed poverty by Residence, sex of household head, stratum and province. At national level, the results show that 15.5 percent of households reported non-poor, 43.8 percent of households regarded themselves to be moderately poor, 40.7 percent perceived themselves to be very poor.

Analysis by Residence shows that in rural areas, 7.8 percent perceived themselves to be non-poor, while 38.8 percent and 53.4 percent considered themselves as moderately poor and very poor, respectively. In urban areas 25.7 percent of households perceived themselves to be non-poor, while 50.4 percent and 23.9 percent considered themselves to be moderately poor and very poor, respectively.

Provincial analysis indicates that Western Province had the highest proportion of households who considered themselves to be poor at 71 percent. Lusaka Province had the highest proportion of households who considered themselves to be non-poor at 29.6 percent.

Further, analysis by sex shows that 12 percent of female-headed households perceived themselves to be non-poor, 37.9 percent and 50.1 percent considered themselves to be moderately poor and very poor, respectively. The male-headed households that perceived themselves to be non-poor were 16.5 percent. About 46 percent and 38 percent considered themselves to be moderately poor and very poor, respectively.

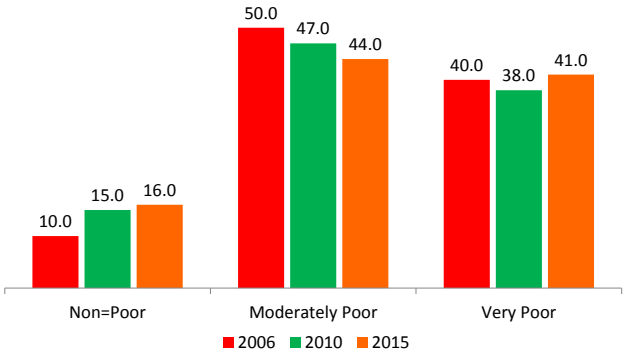
Table 13.1: Percentage Distribution of Households by Self-Assessed Poverty by Residence, Sex of Household Head and Province, Zambia, 2015.

Sex of Head, Residence and Province	self-assessed poverty					Total number of Households
	Non-Poor	Moderately poor	Very poor	Not Stated	Total	
Total Zambia	**15.5**	**43.8**	**40.7**	**0.0**	**100**	**3,014,965**
Sex of head						
Male head	16.5	45.5	37.9	0.0	100	2,316,914
Female head	12.0	37.9	50.1	0.0	100	698,051
Residence						
Rural	7.8	38.8	53.4	0.0	100	1,718,060
Urban	25.7	50.4	23.9	0.0	100	1,296,905
Province						
Central	9.0	50.5	40.5	0.0	100	292,049
Copperbelt	17.5	52.5	29.9	0.0	100	450,843
Eastern	6.4	37.1	56.5	0.0	100	342,161
Luapula	8.7	44.6	46.7	0.0	100	207,612
Lusaka	29.6	46.5	24.0	0.0	100	592,073
Muchinga	15.2	46.6	38.2	0.0	100	174, 832
Northern	16.1	40.0	43.8	0.0	100	253,779
North Western	16.1	29.9	54.0	0.0	100	164,141
Southern	13.8	46.5	39.6	0.0	100	338,259
Western	2.9	25.9	71.0	0.2	100	199,215

13.3. Self-Assessed Poverty: Trend Analysis

Figure 13.1 shows the trend in self-assessed poverty levels since 2006. There has been an increase in the proportion of households that perceived themselves to be non-poor between 2006 and 2015. The proportion of households who considered themselves to be moderately poor decreased from 50 percent in 2006 to 44 percent in 2015.

Figure 13.1: Self-Assessed Poverty Trends, Zambia, 2006, 2010 and 2015.



13.4. Reasons for Household Poverty

The LCMS collected data on the reasons for perceived poverty. This was for those households that considered themselves as either very poor or moderately poor.

Table 13.2 shows the percentage distribution of self-assessed poor households by main reason of poverty, Residence and sex of household head. At national level, the most common reason given for being poor was that the household "could not afford agricultural inputs" at 18.4 percent, followed by "salary/wage too low" at 9.3 percent, and lack of capital (money) to start own business or to expand at 8.8 percent .

Analysis by Residence shows that a higher proportion of rural households (29.8 percent) cited "could not afford agricultural inputs "as the reason for being poor. This was followed by "lack of capital to start or expand agricultural output" at 6.1 percent. Other common reasons where "lack of capital (money) to start own business or to expand" (5.4 percent) "lack of agricultural inputs due to other reasons" (5.3 per cent), "low agricultural inputs" and lack of employment opportunities both at 4.9 percent. This reflects the perceived importance of the agricultural sector in lifting rural households out of poverty.

In urban areas "wage/salary being too low" was the most common cited reason by households for poverty at 16.8 percent, this reflects the different economic profiles of urban households and rural households. Furthermore, other important reasons for poverty among urban households were "lack of capital (money) to start own business" (13.3 percent), "lack of employment opportunities" (11.5 percent), "hard economic times/ economic decline of our country" (4.9 percent), and "prices of commodities being too high" (4.4 percent). The most cited for reason for being poor in both urban and rural areas was Lack of capital.

Analysis by sex shows the reasons cited by male and female headed households for being poor were similar, with the exception of "death of breadwinner" with 6 percent of female headed households citing this as the reason for being poor, compared to only 1 percent of male headed households. This illustrates the vulnerability to poverty due to the death of the breadwinner, particularly in households that do not have an adult male.

Table 13.2: Percentage Distribution of Self-Assessed Poor Households by Main Reason of Poverty, Residence and Sex of Household Head, Zambia, 2015.

Reason for Poverty	Residence and Sex of Head				
	All Zambia	Rural	Urban	Male	Female
Total Zambia	**100**	**100**	**100**	**100**	**100**
Cannot afford/lack of agricultural inputs	18.4	29.8	3.4	17.5	21.4
Agricultural inputs are not available for buying in this area	2.5	4.1	0.2	2.5	2.4
Lack of agricultural inputs due to other reasons	3.2	5.3	0.4	3.3	2.9
Low agricultural production	3.2	4.9	1	3.4	2.7
Drought	1.8	2.9	0.2	1.8	1.8
Floods	0.1	0.2	0	0.1	0.2
Lack of adequate land	2	2.1	1.9	2	2
Low prices for their agricultural produce	1.3	2.1	0.2	1.4	0.7
Lack of market/buyers for the household agricultural produce	0.4	0.7	0.1	0.4	0.3
Lack of cattle/oxen	2.5	4.1	0.4	2.6	2.2
Death of cattle due to diseases	0.4	0.7	0	0.4	0.4
Lack of capital (money) to start/expand agricultural output	4.7	6.1	3	4.7	4.9
Lack of capital (money) to diversify into cash crops	1.5	1.7	1.1	1.4	1.7
Lack of credit facilities to start agricultural production	1.4	1.9	0.7	1.5	1
Lack of capital (money) to start own business or to expand	8.8	5.4	13.3	8.4	10.1
Lack of credit facilities to start business or to expand	2.3	1.4	3.4	2.3	2.4
Lack of employment opportunities/cannot find a job	7.8	4.9	11.5	8.1	6.7
Salary/ wage too low	9.3	3.7	16.8	10.4	6
Pension payment too low	0.2	0	0.5	0.2	0.1
Retrenchment/redundancy	0.1	0	0.3	0.1	0
Prices of commodities too high	3.1	2.1	4.4	2.9	3.5
Hard economic times/economic decline of our country	3.9	3.2	4.9	3.9	4
Business not doing well	1.7	0.6	3.3	1.5	2.5
Too much competition	0.5	0.2	0.8	0.5	0.3
Due to disability	0.3	0.4	0.1	0.3	0.3
Death of bread winner	1.8	2	1.5	0.5	6
Debts	0.2	0.1	0.3	0.2	0.1
Other reasons	1.1	1.6	0.5	1	1.6
not stated	15.5	7.8	25.7	16.6	12

13.5. Reasons for Household Poverty: Trend Analysis

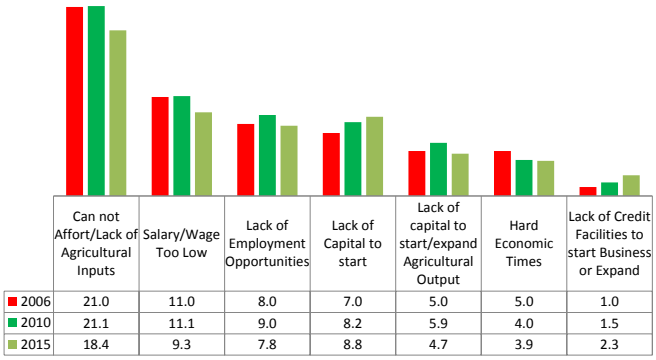
Table 13.3 and Figure 13.2 show trends in the reasons given by households as the main reason for their perceived poverty status. The reason "cannot afford agricultural inputs" was the most stated reason for being poor, although there has been a decrease from 21 percent in 2006 to 18.4 percent in 2015.

The results further show that another perceived reason for being poor was that "salary/wage was too low", which declined from 11 percent in 2006 to 9.3 percent in 2015. There were also some reasons recorded by households that have increased in importance overtime, these include Lack of capital to start/expand own business which increased from 7 percent in 2006 to 8.8 percent in 2015 and Lack of credit facilities to start/expand business which has also increased from 1 percent in 2006 to 2.3 percent in 2015.

Table 13.3: Trend in Percentage Distribution of Self-Assessed Poor Households by Main Reason of Poverty, Zambia, 2006, 2010 and 2015.

Main Reason of Poverty	Survey Year		
	2006	2010	2015
Cannot afford agricultural inputs	21	21.1	18.4
Salary/wage too low	11	11.1	9.3
Lack of employment opportunities	8	9	7.8
Lack of capital to start/expand own business	7	8.2	8.8
Lack of capital to start/expand agricultural output	5	5.9	4.7
Lack of agricultural inputs due to other reasons	5	4.8	3.2
Lack of cattle/oxen	6	4.6	2.5
Hard economic times	5	4	3.9
Low agricultural production	4	3.9	3.2
Lack of adequate land	4	3.4	2
Agricultural inputs not available	4	3.3	2.5
Prices of commodities too high	3	3.1	3.1
Death of breadwinner	5	2.5	1.8
Lack of credit for agricultural production	2	2	1.4
Business not doing well	2	1.8	1.7
Lack of credit facilities to start/expand business	1	1.5	2.3
Low prices for agricultural produce	2	1.5	1.3
Lack of capital to diversify into cash crops	1	1.4	1.5
Lack of market/buyers for agricultural produce	1	1.1	0.4
Floods	1	1	0.1
Death of cattle due to disease	1	0.5	0.4
Pension payment too low	1	0.3	0.2
Too much competition	0	0.3	0.5
Drought	0	0.3	1.8
Due to disability	1	0.3	0.3
Retrenchment/redundancy	1	0.2	0.1
Debts	0	0.1	0.2
Other reasons	2	2.9	1.1
None given	_	0.2	15.5
Total	**100**	**100**	**100**

Figure 13.2: Most Common Reasons for Self-Assessed Poverty Status, Zambia, 2006, 2010 and2015.



13.6. Household Welfare Comparisons

Households were asked to assess the current welfare of their household compared with the last 12 months. The households were asked to state whether their household was "better off", "the same" or "worse off" as compared to the last 12 months.

Table 13.4 shows the percentage distribution of households by perceived change in welfare by Residence, sex of head, stratum and province. At national level, results show that a higher proportion of the households stated that their welfare had remained the same (52.9 percent) compared to the previous year, while 26.8 percent stated that they were better off than the previous year and 20.2 percent stated that they were worse- off compared to the previous year.

Analysis by Residence shows that 30.4 percent of urban and 24 percent of rural households stated to be better off compared to the previous year. A higher proportion of rural households (53.4 percent) reported that their welfare had remained the same compared to the urban households (52.4 percent). The proportion of households who stated to be worse-off was lower in urban (17 percent) than in rural (22.5 percent).

Analysis by sex of head of household shows that a higher proportion of male headed households (29.1 percent) stated that their household welfare had improved from

the previous year than female headed households (19.2 percent).The results further show that 18.7 percent of male-headed and 25 percent of female-headed households stated that their welfare had worsened compared to the previous year.

Analysis by Province shows that, Northern (34.7 percent) had the highest proportion of households that stated that there was an improvement in their welfare. Western (9 percent) had the lowest percentage of households that stated that there was an improvement in their welfare.

Table 13.4: Percentage Distribution of Households by Perceived Change in Welfare by Residence, Sex of Head, Stratum and Province, Zambia, 2015

Sex/Residence/ Stratum/Province	Household Welfare Compared To Last Year						Total Number Of Households
	Better-Off	The Same	Worse-Off	Not Applicable	Not Stated	Total	
Total Zambia	**26.8**	**52.9**	**20.2**	**.1**	**.0**	**100.0**	**3,014,965**
Sex of Head							
Male head	29.1	52.2	18.7	.1	.0	100.0	2,316,914
Female head	19.2	55.5	25.0	.2	.0	100.0	698,051
Residence							
Rural	24.0	53.4	22.5	.1	.0	100.0	1,718,060
Urban	30.4	52.4	17.0	.1	0.0	100.0	1,296,905
Rural Stratum							
Small Scale	23.9	52.9	23.0	.1	.0	100.0	1,542,587
Medium Scale	28.8	52.9	18.1	.2	0.0	100.0	56,974
Large Scale	41.1	31.9	22.0	0.0	4.9	100.0	2,807
Non-Agric	21.8	60.5	17.3	.2	.1	100.0	115,692
Urban Stratum							
Low Cost	27.3	53.6	19.1	.1	0.0	100.0	996,975
Medium Cost	39.6	48.7	11.6	.1	0.0	100.0	166,580
High Cost	42.8	48.1	8.8	.3	0.0	100.0	133,350
Province							
Central	31.1	53.4	15.5	0.0	0.0	100.0	292,049
Copperbelt	22.7	55.9	21.2	.3	.0	100.0	450,843
Eastern	29.3	43.7	27.0	0.0	0.0	100.0	342,161
Luapula	19.0	59.1	21.8	.1	0.0	100.0	207,612
Lusaka	30.0	55.7	14.2	.1	.0	100.0	592,073
Muchinga	33.0	54.0	12.8	.2	0.0	100.0	174,832
Northern	34.7	45.7	19.6	.0	0.0	100.0	253,779
North Western	18.7	63.8	16.9	.6	0.0	100.0	164,141
Southern	30.1	45.9	23.9	.1	.0	100.0	338,259
Western	9.0	58.1	32.5	.1	.2	100.0	199,215

13.7. Average Number of Meals in a Day

The usual number of meals for a person in Zambia is 3 meals per day. However, not all households can afford to consume three meals in a day. According to Nutritionists, reduced number of dietary food intakes in most cases lead to dietary deficiencies in life-sustaining nutrients such as vitamins, minerals, proteins and carbohydrates. It is important to note that normal growth, particularly among under-five children, occurs if various body organs and tissues receive adequate nutrients.

Table 13.5 shows the average number of meals per day by sex of head, Residence, stratum and province. At national level, 52.2 percent of the households stated to have an average of three meals per day. About forty one percent stated to have two meals per day while 3.7 percent stated to have one meal per day.

Analysis by sex shows that, 46.6 percent of female headed households indicated to have two meals per day compared to 39.6 percent of male headed households. On the other hand, 54 percent of male headed households indicated to have an average of three meals per day compared to 46.3 percent of female headed households.

Analysis by province shows that, Southern (76.2 percent) had the highest proportion of households who indicated to have three meals a day, followed by Lusaka at 74.1 percent. Lusaka (6.3 percent) had the highest proportion of households who had an average of more than three meals per day.

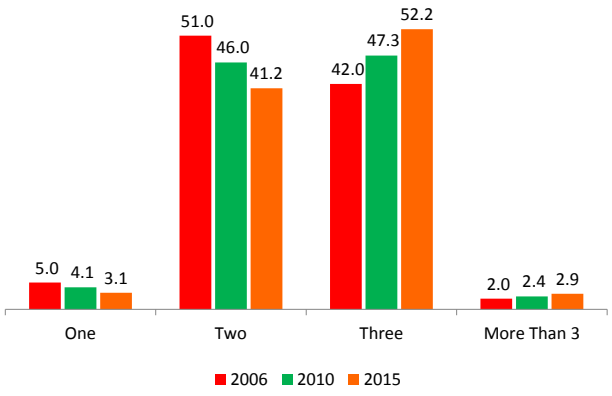
Western (7 percent) had the highest proportion of households who had an average of one meal per day.

Table 13.5: Average Number of Meals Per Day by Sex of Head, Residence, Stratum and Province, Zambia, 2015.

Sex Of Household Head/ Poverty Status/Residence/ Stratum/Province	1 Meal	2 Meal	3 Meal	4 Meal	Total	Total Number of Households
Total Zambia	**3.7**	**41.2**	**52.2**	**2.9**	**100.0**	**3,014,965**
Sex of household head						
Male head	3.3	39.6	54.0	3.1	100.0	2,316,914
Female head	4.8	46.6	46.3	2.3	100.0	698,051
Actual poverty status						
Extremely Poor	5.9	62.8	30.8	.5	100.0	1,069,850
Moderately Poor	3.6	50.2	44.8	1.4	100.0	399,181
Non Poor	2.1	23.9	69.0	4.9	100.0	1,530,058
Residence						
Rural	3.8	53.5	41.6	1.1	100.0	1,718,060
Urban	3.5	25.0	66.2	5.2	100.0	1,296,905
Stratum						
Small Scale	3.8	55.3	39.9	1.0	100.0	1,542,587
Medium Scale	.8	22.6	73.7	2.9	100.0	56,974
Large Scale	0.0	30.2	60.2	4.6	100.0	2,807
Non-Agric	5.7	44.6	47.8	1.9	100.0	115,692
Low Cost	4.2	28.7	63.6	3.5	100.0	996,975
Medium Cost	1.3	12.7	77.1	8.8	100.0	166,580
High Cost	1.5	12.5	72.2	13.8	100.0	133,350
Province						
Central	1.6	33.9	62.5	2.0	100.0	292,049
Copperbelt	5.8	40.2	50.7	3.3	100.0	450,843
Eastern	2.9	48.1	48.4	.6	100.0	342,161
Luapula	5.6	70.1	22.7	1.6	100.0	207,612
Lusaka	2.1	17.5	74.1	6.3	100.0	592,073
Muchinga	3.4	54.3	40.6	1.6	100.0	174,832
Northern	5.2	67.6	26.3	.9	100.0	253,779
North Western	4.2	56.4	38.5	1.0	100.0	164,141
Southern	2.0	17.6	76.2	4.2	100.0	338,259
Western	7.0	65.7	26.2	1.0	100.0	199,215

Figure 13.3 shows a trend in the average number of meals eaten per day from 2006, 2010 and 2015 LCMS. The proportion of households who indicated having a meal or 2 per day shows a downward trend. There has been a 10.2 percentage point increase in the proportion of households who indicated having three meals per day.

Figure 13.3 Average Number of Meals in a Day Trends, Zambia, 2006, 2010 and 2015.



13.8. Household Coping Strategies

Analysis of the various coping strategies employed by households in the face of adverse events can tell a particularly interesting story of the vulnerability of those households to poverty. This is particularly important for potentially damaging coping strategies that may be employed, such as the distress sale of a productive asset.

Table 13.6 shows the proportion of households who experienced an incident in the 12 months prior to the survey by level of perceived poverty, residence and stratum. At national level, the results show that 56.8 percent of the households indicated having experienced an incident in the twelve months prior to the survey.

The results further show that 67.9 percent of households who perceived themselves to be very poor experienced an incident compared to 56.3 percent who perceived themselves to be moderately poor. Twenty nine in every 100 of households that perceived themselves to be non-poor experienced an incident.

Table 13.6: Proportion of Households who Experienced an Incident in the 12 Months Prior to the Survey by Level of Perceived Poverty and Stratum, Zambia, 2015.

Perceived Poverty/Residence/Stratum	Proportion of Households who Experienced an Incidence
Total Zambia	**56.8**
Household Level of Perceived Poverty	
Non poor	29.3
Moderately poor	56.3
Very poor	67.9
Residence	
Rural	64.0
Urban	47.3
Rural Stratum	
Small Scale	65.0
Medium Scale	62.5
Large Scale	76.0
Non-Agric	51.5
Urban Stratum	
Low Cost	50.6
Medium Cost	41.4
High Cost	29.8

Households that stated to have experienced a shock were further asked a follow up question to state what type of shock they faced. Households were allowed to state more than one incident.

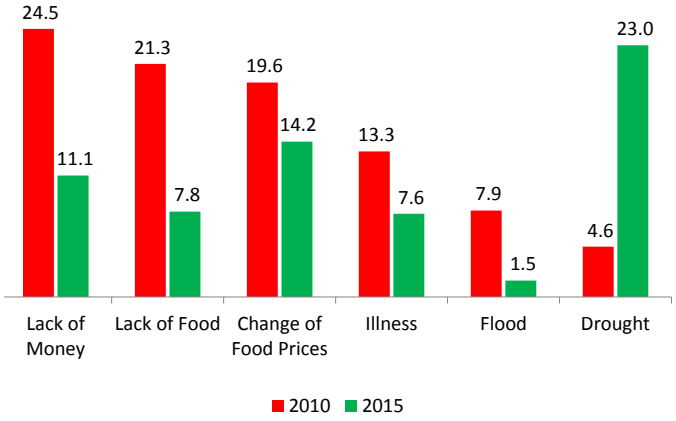
Table 13.7 shows the percentage distribution of households who faced a specific incident during the past 12 months by Residence. At national level, Drought was the most cited incident at 23 percent. Other common shocks were, Change in food prices at 14.2 percent, followed by Lack of money at 11.1 percent, and Lack of food at 7.8 percent. The results further show that 'drought' at 35.7 percent was the most cited shock in rural areas while urban households cited 'upward change in food prices' at 18 percent.

Table 13.7: Percentage Distribution of Households who faced a Specific Incident during the last 12 Months by Residence, Zambia, 2015.

Incident	All Zambia	Rural	Urban
Lack of money	11.1	10.3	12.1
Lack of food	7.8	8.3	7.0
Change in food prices	14.2	11.3	18.0
Illness	7.6	9.2	5.5
Flood	1.5	2.1	0.6
Change in agricultural input prices	2.2	3.4	0.6
Death of other household member	2.0	2.1	1.8
Marital differences / divorce	2.6	2.9	2.2
Drought	23.0	35.7	6.0
Livestock disease	5.0	8.5	0.4
Collapse of business	3.3	1.7	5.4
Family conflicts	2.3	2.2	2.3
Change in sale prices of agriculture products	1.6	2.4	0.6
Crop disease/crop pests	4.4	6.9	1.0
Job Loss / no salary	2.7	1.0	4.9
Damage to crop while in storage	1.4	2.1	0.4
Rise of profit from business	0.8	0.5	1.2
Death of bread earner	1.3	1.3	1.3
Person joined household	1.1	1.2	1.1
Victim of crime/business scam/ cheating	0.8	0.6	1.1
Serious injury / accident	0.5	0.5	0.5
Destruction of housing	0.2	0.3	0.1
Evicted from house	0.4	0.0	0.8
storm	0.9	1.3	0.4
Better pay/ work	0.8	0.3	1.3
Change in money received from family/friends	0.4	0.3	0.5
Inability to pay back loan	0.3	0.1	0.5
Law suit / imprisonment	0.1	0.1	0.2
Communal / political crisis / conflict (religious)	0.5	0.4	0.6

Figure 13.4 shows a trend in common shocks experienced by households for 2010 and 2015. The proportion of households citing 'Lack of money' has decreased from 24.5 percent in 2010 to 11.1 percent in 2015. There has also been a decline in the proportion of households citing' Lack of food 'from 21.3 to 7.8 percent. There has also been a decline in the proportion of households citing Change in food prices from 19.6 percent in 2010 to 14.2 percent in 2015. The proportion of households citing having experienced 'Drought' increased from 4.6 percent in 2010 to 23 percent in 2015.

Figure 13.4 Common Shocks, Trend Analysis, Zambia, 2010 and 2015.



13.9. Impact of Shocks on the Households

Households were asked questions on the impact of the incident and whether it was positive or negative.

Table 13.8 shows the percentage distribution of households by severity of impact of shock by shock type. To facilitate analysis and to allow for comparison, a score was assigned to each of the degrees of severity: 0 for no impact, 1 for low impact, 2 for medium impact and 3 for high impact. "Don't know" answers were disregarded for the severity score calculation. The severity score thus represents average severity of a shock.

At national level, 'Death of other household member' was the shock that had the highest impact with a severity score of 2.51.This was followed by 'Evicted from house' at 2.41, 'Destruction of housing (fire, storm)' at 2.40 and 'Crop disease/crop pests' at 2.39.

Table 13.8: Percentage of Households by Severity of Impact of Shock by Type of Shock, Zambia, 2015.

Type of Shock	No Impact	Low Impact	Medium Impact	High Impact	Severity Score
Death of other household member	2.1	5.3	19.6	57.0	2.51
Evicted from house	0.0	1.7	5.4	76.2	2.41
Destruction of housing (e.g from fire / storm)	0.0	7.9	11.5	69.7	2.40
Crop disease/crop pests	.6	10.5	33.9	39.6	2.39
Law suit / imprisonment	26.3	12.7	24.2	29.8	2.34
Rise of profit from business	0.0	2.2	12.8	2.5	2.30
Serious injury / accident	0.6	22.6	10.1	61.5	2.27
Flood	1.1	7.2	29.2	39.6	2.27
Better pay/ work	1.2	0.0	15.7	17.5	2.23
Drought	1.4	5.1	23.2	54.9	2.16
Job Loss / no salary	0.4	6.0	16.2	66.7	2.16
Person joined household	4.9	11.2	16.9	14.8	2.15
Death of bread earner	1.3	1.0	1.7	82.1	2.13
Lack of financial resources/adequate resources	0.5	4.4	31.6	54.1	2.12
Inability to pay back loan	2.2	4.1	41.5	36.4	2.11
Victim of crime/business scam/ cheating	8.6	12.0	37.9	38.4	2.05
Marital differences / divorce	4.2	8.8	26.5	44.6	2.03
Storm	0.1	18.9	37.7	35.0	1.99
Communal / political crisis / conflict (religious)	9.6	12.9	38.0	32.5	1.97
Illness	1.6	8.1	32.8	47.1	1.96
Livestock disease	1.8	7.6	20.3	54.1	1.96
Lack of food / adequate food	0.7	5.7	27.7	53.9	1.95
Collapse of business	0.0	9.8	26.2	57.4	1.86
Family conflicts	3.2	9.8	45.1	31.5	1.85
Damage to crop while in storage	1.5	13.0	28.0	45.4	1.74
Change in food prices	0.7	5.2	32.9	51.8	1.73
Change in sale prices of agriculture products	0.1	11.4	25.5	36.7	1.51
Change in agricultural input prices (e. g seeds)	0.8	8.2	35.7	44.2	0.84
Change in money received from family/friends	1.8	6.0	36.3	31.7	0.35

COPING STRATEGIES USED ON VARIOUS EVENTS

There are times when households are faced with problems that negate their desired level of welfare. In most cases, households attempt to come out of their predicament largely by using particular survival strategies available to them. The survey collected data on various ways that households cope during hard times. These mechanisms of overcoming hard times were referred to as coping strategies.

Table 13.9 shows the proportion of households by type of coping strategies employed by Residence and sex of household head. Overall, 16.2 percent of the households stated that they spent their savings as a coping strategy. This was followed by households that stated that they borrowed money from relatives, friends and other persons (8.2 percent). The other coping strategies that the households used was to Buy cheaper food (7.8 percent), Receive, asked for gifts and assistance from relatives, friends and other persons (6.3 percent).

In rural areas, 8 percent of the households compared to 0.4 percent in urban cited having sold an animal as a coping strategy. The most common cited coping strategy used in both urban areas and rural areas was spending their savings at 17.8 percent and 15.2 percent, respectively.

Analysis by sex shows that 8.4 percent of male-headed and 6.1 percent of female-headed households bought cheaper food as a coping strategy. Almost 10 percent of the female headed household cited Receiving, asking for gifts, assistance from relatives, friends and other persons compared to 5.1 percent of the male headed households as a coping strategy.

Table 13.9: Proportion of Households by Type of Coping Strategies Employed by Residence and Sex of Household Head, Zambia, 2015.

Coping Strategy	Total		Rural		Urban		Male		Female	
	Number	percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Zamia	**1,509,236**	**100.0**	**922,352**	**100.0**	**586,884**	**100.0**	**1,138,133**	**100.0**	**371,104**	**100.0**
Spent savings	244,312	16.2	139,800	15.2	104,512	17.8	192,621	16.9	51,691	13.9
Used insurance	1,192	0.1	232	0.0	960	0.2	952	0.1	240	0.1
Sold animals	76,011	5.0	73,525	8.0	2,486	0.4	58,670	5.2	17,341	4.7
Grew / sold additional / other crops	50,500	3.3	46,245	5.0	4,255	0.7	39,490	3.5	11,009	3.0
Sold assets (tools	28,574	1.9	10,976	1.2	17,598	3.0	20,814	1.8	7,760	2.1
Sold farm land	6,112	0.4	3,195	0.3	2,918	0.5	3,302	0.3	2,810	0.8
Worked more hours	80,998	5.4	49,411	5.4	31,587	5.4	67,166	5.9	13,832	3.7
Started business	44,307	2.9	20,403	2.2	23,904	4.1	32,904	2.9	11,403	3.1
Sent children to relatives or friends	25,066	1.7	13,693	1.5	11,373	1.9	15,899	1.4	9,167	2.5
Went elsewhere /migrated to work	48,584	3.2	32,555	3.5	16,029	2.7	38,217	3.4	10,366	2.8
Travelled/ migrated to seek health care	17,258	1.1	14,318	1.6	2,940	0.5	13,159	1.2	4,100	1.1
Sent children to work/sell	10,401	0.7	6,434	0.7	3,967	0.7	6,987	0.6	3,415	0.9
Received/ asked for gifts/ assistance from relatives/ friends/ other persons	94,822	6.3	62,266	6.8	32,556	5.5	57,951	5.1	36,871	9.9
Borrowed money from relatives/ friends/other persons	124,415	8.2	62,323	6.8	62,092	10.6	87,956	7.7	36,459	9.8
Borrowed from money lender	32,499	2.2	9,281	1.0	23,218	4.0	27,754	2.4	4,745	1.3
Borrowed from bank/ other financial institution/ employer	7,950	0.5	2,148	0.2	5,802	1.0	6,954	0.6	996	0.3
Got help from religious organization	27,550	1.8	14,723	1.6	12,827	2.2	22,355	2.0	5,195	1.4
Sought spiritual help	25,006	1.7	10,598	1.1	14,408	2.5	22,417	2.0	2,588	0.7
Sought/got help from government	36,291	2.4	27,050	2.9	9,241	1.6	27,331	2.4	8,959	2.4
Sought/obtained help from ngo/ international organization	4,609	0.3	2,929	0.3	1,680	0.3	2,150	0.2	2,460	0.7
Govt cash transfer	1,234	0.1	1,234	0.1	0	0.0	1,234	0.1	0	0.0
Remittances from other households/ persons	38,292	2.5	28,353	3.1	9,939	1.7	21,428	1.9	16,864	4.5
Bought cheaper food	117,961	7.8	50,833	5.5	67,128	11.4	95,433	8.4	22,529	6.1
Bought less food	68,022	4.5	26,641	2.9	41,381	7.1	52,938	4.7	15,084	4.1
Reduced non-food expenses	31,050	2.1	15,898	1.7	15,152	2.6	23,487	2.1	7,563	2.0
Piece work on farms belonging to other households	59,011	3.9	53,708	5.8	5,303	0.9	41,137	3.6	17,874	4.8
Other piece work	46,975	3.1	32,566	3.5	14,409	2.5	37,421	3.3	9,554	2.6
Working on food-for-work or work-for-assets program	5,395	0.4	4,490	0.5	905	0.2	3,780	0.3	1,615	0.4
Eating wild foods only	1,456	0.1	1,342	0.1	114	0.0	205	0.0	1,251	0.3
Substituting ordinary meals with mangoes	2,690	0.2	2,690	0.3	0	0.0	1,678	0.1	1,012	0.3
Reducing number of meals or food-in-take	48,086	3.2	33,222	3.6	14,864	2.5	36,319	3.2	11,767	3.2
Pulling children out of school	2,215	0.1	1,775	0.2	440	0.1	1,632	0.1	583	0.2
Petty vending	3,235	0.2	621	0.1	2,615	0.4	2,014	0.2	1,221	0.3
Begging from the streets	208	0.0	24	0.0	184	0.0	24	0.0	184	0.0
Sought refuge with neighbours	16,199	1.1	10,306	1.1	5,893	1.0	11,826	1.0	4,373	1.2
Other	37,778	2.5	28,062	3.0	9,716	1.7	29,481	2.6	8,296	2.2
No response	41,253	2.7	27,124	2.9	14,128	2.4	31,328	2.8	9,924	2.7
Not stated	1,717	0.1	1,358	0.1	360	0.1	1,717	0.2	0	0.0

CHAPTER 14
HOUSING CHARACTERISTICS, HOUSEHOLD AMENITIES AND ACCESS TO FACILITIES

14.1. Introduction

Poverty among households in Zambia can also be measured by the housing standards and the extent to which the population has access to safe water sources, good sanitation and other social economic infrastructure. Provision of clean and safe water supply should be among the top priorities for the Government because of the linkage that exists between inadequate supply of safe water and incidence of water borne diseases.

The 2015 Living Conditions Monitoring Survey collected data on housing, household characteristics and amenities pertaining to types of dwelling, tenancy of housing units, main source of drinking water for households, sanitation, energy for cooking, energy for lighting and households' access to facilities.

Facilities for which information was collected included the food market, post office, bank, education and health facilities. For each of these facilities, various information such as distance, walking time, means of getting to the facility, use of facilities and reason for not using a particular facility were also recorded.

14.2. Housing Characteristics

This section presents results on the type of housing unit used by households and basis of occupation. The following concepts and definitions were used to identify type of dwelling.

Housing unit: This is an independent place of abode intended for habitation by one household. This should have a direct access to the outside such that the occupants can come in or go out without passing through anybody else's premises, that is, a housing unit should have at smallest one door which directly leads outside in the open or into a public corridor or hallway. This excludes structures such as garages, barns and classrooms.

Traditional hut: referred to a housing structure usually made of mud material around the walls and usually has a thatched roof.

Improved traditional hut: referred to a housing structure that had been improved by the materials used for either the walls and/or the roofing, e.g. red brick or burnt brick walling, asbestos or even iron sheets on the roof.

Detached house: referred to a housing structure that is split into two or more housing units. Each housing unit is independently detached from the other and stands on its own.

Flat/apartment/multi-unit: referred to a housing structure that had a set of rooms and its accessories in a permanent building.

Semi-detached House: referred to a housing structure that was split into two or more housing units. The separate housing unit usually had a set of rooms and its accessories were not independently defined from the permanent structure and were separated by a wall.

Guest house/wing: referred to a housing structure that was separate or part of the main house. The separate housing structure had a room or a set of rooms and its accessories in a permanent structure.

Cottage: referred to a housing structure that was separate from the main house with a room or a set of rooms and its accessories in a permanent structure. It is a private housing unit, which is kept for visitors to stay and sometimes have meals for payment (small hotel).

House attached to/on top of a Shop: referred to a living quarter that was part of a commercial building.

Hostel: referred a building or living quarters in which certain types of people lived and ate, such as students/young people working away from home stayed for payment.

Non-residential building: referred to premises in a permanent structure or structures that were not intended for habitation of people or groups of people, e.g. school classrooms, barns, warehouses, etc.

Unconventional: referred to improvised housing units that were independent or makeshift shelters built from mostly waste or salvaged materials and without a predetermined design or plan for the purpose of habitation by one or more persons, e.g. kantemba, storage container, etc.

Other: referred to the residual category of living quarters and includes trailers, boats, tents, caravans.

In this chapter, conventional housing included detached house, flat/apartment/multi-unit and semi-detached house.

14.2.1. Type of Housing unit

Table 14.1 shows the percentage distribution of households by type of housing unit by Residence, stratum, and province. At national level, the results show that the most common type of housing unit occupied by households was traditional huts at 32 percent while 21.5 percent occupied improved traditional huts. The type of housing occupied by the households with the lowest proportion was servant quarters, at 1.3 percent.

The highest proportion of rural households occupied traditional huts at 52.9 percent, improved traditional huts (29.9 percent), and detached house (14.2 percent). In urban areas, the majority of households lived in detached houses (47.4 percent), followed by Flats/Apartments and Multi-units dwellings, at 22.5 percent. Semi-detached houses and improved traditional housing unit were occupied by 11.4 and 10.2 percent of the households respectively. Traditional hut were occupied by 4.3 percent of urban households.

Analysis by province shows that Western Province had the highest proportion of households occupying traditional huts at 72.8 percent while Lusaka Province (2.8 percent) had the lowest proportion. Copperbelt Province had the highest proportion of households that occupied detached houses at 47.3 percent while Western Province (6.8 percent) had the lowest proportion. Lusaka province (38.4 percent) had the highest proportion of households occupying Flats/Apartments while Northern and Western provinces had the least, at 1.1 percent each.

Table 14.1: Percentage Distribution of Households by Type of Housing Unit by Residence, Stratum, and Province, Zambia, 2015.

Residence/Stratum/Province	Type of Housing Unit							Not stated	Total	Total number of households
	Traditional hut	Improved traditional hut	Detached house	Flat/ apartment/ multi-unit	Semi-detached house	Servants quarters	Other			
Total Zambia	**32.0**	**21.5**	**28.5**	**10.4**	**5.5**	**1.3**	**0.8**	**0.0**	**100**	**3,014,965**
Residence										
Rural	52.9	29.9	14.2	1.3	1.1	0.1	0.4	0.0	100	1,718,060
Urban	4.3	10.2	47.4	22.5	11.4	2.8	1.4	-	100	1,296,905
Stratum										
Small Scale	55.1	30.3	13.1	0.4	0.7	0.1	0.3	0.0	100	1,542,587
Medium Scale	32.9	36.1	28.9	1.2	0.8	-	0.1	-	100	56,974
Large Scale	17.9	25.8	53.7	1.7	1.0	-	-	-	100	2,807
Non-Agric	35.2	21.8	20.2	13.0	7.2	0.7	1.8	0.1	100	115,692
Low Cost	5.5	12.5	44.0	23.1	11.5	2.3	1.1	-	100	996,975
Medium Cost	0.7	3.8	60.5	17.2	13.5	2.4	1.8	-	100	166,580
High Cost	0.3	1.6	56.3	24.6	7.9	6.5	2.8	-	100	133,350
Province										
Central	36.6	28.1	27.4	4.5	2.8	0.2	0.5	-	100	292,049
Copper belt	8.6	20.1	47.3	7.6	9.9	4.9	1.6	0.0	100	450,843
Eastern	45.7	23.5	27.1	1.3	1.2	0.2	1.0	-	100	342,161
Luapula	45.2	37.8	15.8	0.4	0.3	0.2	0.3	-	100	207,612
Lusaka	2.8	5.1	38.5	38.4	11.9	1.9	1.4	-	100	592,073
Muchinga	48.3	23.4	19.8	4.9	3.4	0.1	0.0	-	100	174,832
Northern	65.1	18.5	14.3	1.1	0.5	0.2	0.3	-	100	253,779
North Western	42.6	34.9	18.8	1.9	1.5	0.2	0.2	-	100	164,141
Southern	26.3	30.7	28.3	5.1	8.1	0.7	0.9	-	100	338,259
Western	72.8	18.1	6.8	1.1	0.9	0.1	0.3	-	100	199,215

14.2.2. Tenancy Status of Housing Unit

Table 14.2 shows percentage distribution households by tenancy, by basis of occupation. Data on tenancy was collected, by asking the household head, the basis on which the household occupied the housing unit they lived in.

At national level, the results show that the proportion of households that occupied their own housing unit was 69.5 percent while 22.2 percent rented from private landlords and about 5.9 percent occupied free housing.

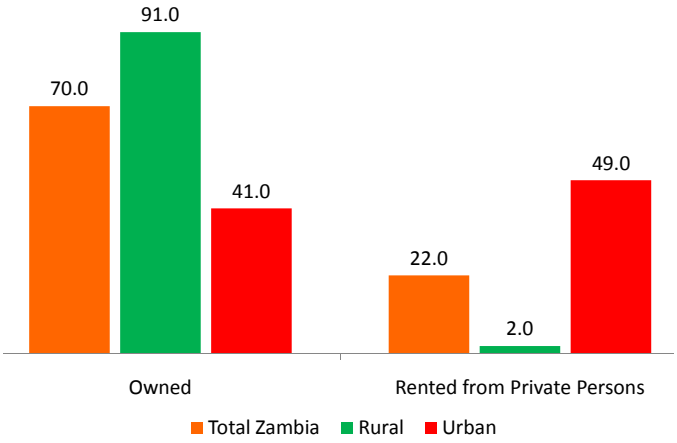
Analysis by residence shows that in rural areas 90.8 percent of housing units were owner-occupied. In urban areas 41.4 percent were owner-occupied.

Rented housing from private landlords was high in urban areas more especially in Lusaka and Copperbelt at 56.2 and 35 percent of households occupying rented houses, respectively.

Table 14.2: Percentage Distribution of Households by Tenancy Status by Residence, Stratum and Province, Zambia, 2015.

Residence/ Stratum/ Province	Basis of occupation							Total number of households
	Owner-occupied	Rented from institution	Rented from private persons (landlord)	Free housing	Other	Not stated	Total	
Total Zambia	69.5	1.8	22.2	5.9	0.5	0.0	100	3,014,965
Residence								
Rural	90.8	1.1	2.0	5.8	0.3	0.0	100	1,718,060
Urban	41.4	2.8	49.0	6.1	0.8	-	100	1,296,905
Stratum								
Small Scale	93.6	0.9	1.3	4.1	0.2	0.0	100	1,542,587
Medium Scale	94.5	0.8	0.8	3.5	0.4	-	100	56,974
Large Scale	96.3	-	1.2	2.5	-	-	100	2,807
Non-Agric	51.6	4.8	11.6	30.9	1.0	0.1	100	115,692
Low Cost	42.4	2.3	49.5	4.9	0.9	-	100	996,975
Medium Cost	42.5	2.1	50.5	4.7	0.3	-	100	166,580
High Cost	32.3	7.5	43.1	16.4	0.7	-	100	133,350
Province								
Central	74.8	1.9	11.2	11.9	0.3	-	100	292,049
Copperbelt	57.7	2.3	35.0	4.7	0.4	0.0	100	450,843
Eastern	88.2	1.1	5.6	5.0	0.1	-	100	342,161
Luapula	84.8	0.8	9.6	4.6	0.1	-	100	207,612
Lusaka	33.6	1.4	56.2	7.3	1.4	-	100	592,073
Muchinga	82.0	2.8	11.0	4.2	-	-	100	174,832
Northern	88.4	0.9	6.9	3.5	0.3	-	100	253,779
North Western	87.5	0.2	9.1	3.0	0.2	-	100	164,141
Southern	73.4	5.3	14.4	6.6	0.3	-	100	338,259
Western	91.0	0.5	3.2	4.9	0.4	-	100	199,215

Figure 14.1: Percentage Distribution of Households by Tenancy Status by Residence, Zambia, 2015.



14.3. Household Amenities

This section discusses various households' access to various amenities including sources of water supply, lighting and cooking energy. The section also looks at the type of toilet facility and the garbage disposal methods used by the households.

14.3.1. Main Water Source

The sources of water considered were lake/stream, unprotected well, pumped water, protected well, borehole, public tap and own tap. Among these water sources, protected wells, boreholes, pumped water and taps were regarded as safe sources of water supply; whereas, unprotected wells, rivers and lakes/streams were considered unsafe sources of water supply.

Table 14.3 shows the percentage distribution of households by main water source, residence, stratum, province and poverty status. At national level, 67.7 percent of households had access to safe water supply.

Analysis by Residence shows that 51.6 percent of households in rural areas had access to safe water while 89.2 percent of households in urban areas had access to safe water.

At provincial level, Lusaka Province had the highest percent of households with access to safe water at about 96 percent and Northern Province had the lowest percent of households with access to safe water at 30.8 percent.

Table 14.3: Percentage Distribution of Households by Main Source of water by Residence, Stratum and Province Zambia, 2015

Residence/ Stratum/ Province	Main water source																		
	Rain water	Protected well	Bore-hole	Protected spring	Public tap	Own tap	Other tap (eg from nearby building)	Water kiosk	Bought from other vendor	Bottled water	Total Safe	Directly from river/ lake/ stream/ dam	Unprotected well	Unprotected spring	Other	Total Unsafe	Not stated	Total	Total number of households
Total Zambia	**0.5**	**10.4**	**23.5**	**0.4**	**9.8**	**16.9**	**3.5**	**2.6**	**0**	**0.1**	**67.7**	**10.7**	**19.6**	**1.2**	**0.7**	**32.2**	**0**	**100**	**3,014,965**
Residence																			
Rural	0.1	10.5	35.2	0.6	3.2	1.3	0.5	0.2	0	0	**51.6**	18.3	27.9	1.9	0.4	**48.5**	0	100	1,718,060
Urban	1.1	10.3	8	0.2	18.5	37.5	7.5	5.8	0.1	0.2	**89.2**	0.7	8.6	0.3	1.2	**10.8**	0	100	1,296,905
Rural Stratum																			
Small Scale	0.1	10.5	35.7	0.6	2	0.8	0.3	0.1	0	0	**50.1**	18.8	28.9	2	0.4	**50.1**	0	100	1,542,587
Medium Scale	0	13	35.3	0.1	3.5	1.5	1.3	0	0	0	**54.7**	19.4	25.3	0.5	0.2	**45.4**	0	100	56,974
Large Scale	0	14	37.5	0	0.6	9.4	0	0	0	0	**61.5**	14.4	23.1	0.8	0	**38.3**	0.3	100	2,807
Non-Agric	0.3	9.8	28.9	1	19.5	8.2	2.8	1.2	0	0	**71.7**	10.5	16	1.4	0.3	**28.2**	0.1	100	115,692
Urban Stratum																			
Low Cost	1.4	12.3	9	0.3	22.5	25.5	7.8	7.4	0	0.2	**86.4**	0.9	10.8	0.4	1.5	**13.6**	0	100	996,975
Medium Cost	0	4	3.4	0	6.9	72.8	9.1	1.2	0.4	0	**97.8**	0.1	1.6	0.1	0.2	**2**	0	100	166,580
High Cost	0.3	3.4	6.3	0	3.1	82.8	2.8	0.1	0	0	**98.8**	0.2	0.9	0	0.1	**1.2**	0	100	133,350
Province																			
Central	0	25.5	18.2	0.4	10.1	8.4	2.2	1.5	0.2	0	**66.5**	12.6	20.8	0	0	**33.4**	0	100	292,049
Copperbelt	0.1	20.2	6.7	0.4	5.3	37.4	6.1	1.4	0	0.5	**78.1**	1.8	18.4	0.8	0.9	**21.9**	0	100	450,843
Eastern	0	7.1	60.5	0	1.2	5.1	0.4	1.7	0	0	**76**	3.9	18.1	1.5	0.4	**23.9**	0	100	342,161
Luapula	0	18.2	29.2	3.3	0	2	0.2	0	0	0	**52.9**	16.6	27.1	3.1	0.2	**47**	0	100	207,612
Lusaka	2.5	2.4	16	0	29.5	29.2	7.8	8.6	0	0	**96**	0.8	1.7	0.2	1.4	**4.1**	0	100	592,073
Muchinga	0.2	12.1	15.1	0.2	2.4	8	1.6	0.8	0	0	**40.4**	20.3	34.5	4.8	0	**59.6**	0	100	174,832
Northern	0.1	4.9	13.7	0.7	2.4	5.8	1.7	1.5	0	0	**30.8**	36.2	31.9	1.2	0	**69.3**	0	100	253,779
North Western	0	12.3	27.6	0.3	1.4	7.4	2.6	2.8	0	0	**54.4**	17.8	26.5	1.3	0	**45.6**	0	100	164,141
Southern	0	3.9	34.3	0	14.2	20.5	2	0.2	0	0	**75.1**	11.7	11	0.5	1.8	**25**	0	100	338,259
Western	0	2.7	20.3	0	1.2	5.4	2.6	0.3	0	0	**32.5**	15	48.5	3	0.8	**67.3**	0.2	100	199,215

14.3.2. Sources of Drinking Water

Sources of drinking water can also be defined as safe or unsafe, following the definition used in section 14.3.1 above. However, the WHO/UNICEF Joint Monitoring Programme (JMP) has established a standard set of drinking-water categories that are used for monitoring purposes. An "improved" drinking water source is one that, by the nature of its construction and when properly used, adequately protects the source from outside contamination, particularly faecal matter.

Table 14.4 shows the improved sources of drinking water.

Table 14.4 Improved Sources of Drinking Water, Zambia, 2015.

Improved sources of drinking water
• Piped water into dwelling
• Piped water to yard/plot
• Public tap or standpipe
• Tube well or borehole
• Protected dug well
• Protected spring
• Rainwater
• Bottled water

Table 14.5 shows the percentage distribution of households by main source of drinking water, Residence, stratum and province. At national level the results show that 67.7 percent of households had access to improved sources of drinking water.

About 89.2 percent of urban households had access to improved sources of drinking water while 51.6 percent of households in rural areas accessed improved sources of drinking water.

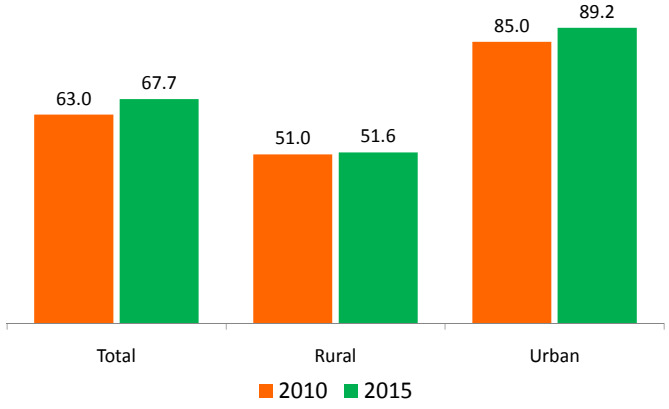
Analysis by province shows that Lusaka Province (96 percent) had the highest proportion of households with access to improved sources of drinking water while Northern Province (30.8 percent) had the lowest proportion.

Table 14.5: Percentage Distribution of households by Main Source of Drinking Water, Residence, Stratum and Province, Zambia, 2015.

Residence/ Stratum/ Province	Improved										Unimproved						Total	Total number of households
	Rainwa-ter	Protect-ed well	Bore-hole	Pro-tected spring	Public tap	Own tap	Other tap (eg from nearby build-ing)	Water kiosk	Bought from other vendor	Bottled water	Total im-proved	Directly from river/ lake/ stream/ dam	Unpro-tected well	Unpro-tected spring	Other	Total un-improved		
Total Zambia	**0.5**	**10.4**	**23.5**	**0.4**	**9.8**	**16.9**	**3.5**	**2.6**	**0**	**0.1**	**67.7**	**10.7**	**19.6**	**1.2**	**0.7**	**32.2**	**100**	**3,014,965**
Residence																		
Rural	0.1	10.5	35.2	0.6	3.2	1.3	0.5	0.2	0	0	**51.6**	18.3	27.9	1.9	0.4	48.5	100	1,718,060
Urban	1.1	10.3	8	0.2	18.5	37.5	7.5	5.8	0.1	0.2	**89.2**	0.7	8.6	0.3	1.2	10.8	100	1,296,905
Stratum																		
Small Scale	0.1	10.5	35.7	0.6	2	0.8	0.3	0.1	0	0	**50.1**	18.8	28.9	2	0.4	50.1	100	1,542,587
Medium Scale	0	13	35.3	0.1	3.5	1.5	1.3	0	0	0	**54.7**	19.4	25.3	0.5	0.2	45.4	100	56,974
Large Scale	0	14	37.5	0	0.6	9.4	0	0	0	0	**61.5**	14.4	23.1	0.8	0	38.3	100	2,807
Non-Agric	0.3	9.8	28.9	1	19.5	8.2	2.8	1.2	0	0	**71.7**	10.5	16	1.4	0.3	28.2	100	115,692
Low Cost	1.4	12.3	9	0.3	22.5	25.5	7.8	7.4	0	0.2	**86.4**	0.9	10.8	0.4	1.5	13.6	100	996,975
Medium Cost	0	4	3.4	0	6.9	72.8	9.1	1.2	0.4	0	**97.8**	0.1	1.6	0.1	0.2	2	100	166,580
High Cost	0.3	3.4	6.3	0	3.1	82.8	2.8	0.1	0	0	**98.8**	0.2	0.9	0	0.1	1.2	100	133,350
Province																		
Central	0	25.5	18.2	0.4	10.1	8.4	2.2	1.5	0.2	0	**66.5**	12.6	20.8	0	0	33.4	100	292,049
Copperbelt	0.1	20.2	6.7	0.4	5.3	37.4	6.1	1.4	0	0.5	**78.1**	1.8	18.4	0.8	0.9	21.9	100	450,843
Eastern	0	7.1	60.5	0	1.2	5.1	0.4	1.7	0	0	**76**	3.9	18.1	1.5	0.4	23.9	100	342,161
Luapula	0	18.2	29.2	3.3	0	2	0.2	0	0	0	**52.9**	16.6	27.1	3.1	0.2	47	100	207,612
Lusaka	2.5	2.4	16	0	29.5	29.2	7.8	8.6	0	0	**96**	0.8	1.7	0.2	1.4	4.1	100	592,073
Muchinga	0.2	12.1	15.1	0.2	2.4	8	1.6	0.8	0	0	**40.4**	20.3	34.5	4.8	0	59.6	100	174,832
Northern	0.1	4.9	13.7	0.7	2.4	5.8	1.7	1.5	0	0	**30.8**	36.2	31.9	1.2	0	69.3	100	253,779
North Western	0	12.3	27.6	0.3	1.4	7.4	2.6	2.8	0	0	**54.4**	17.8	26.5	1.3	0	45.6	100	164,141
Southern	0	3.9	34.3	0	14.2	20.5	2	0.2	0	0	**75.1**	11.7	11	0.5	1.8	25	100	338,259
Western	0	2.7	20.3	0	1.2	5.4	2.6	0.3	0	0	**32.5**	15	48.5	3	0.8	67.3	100	199,215

Figures 14.2 and 14.3 show the percentage distribution of households by Residence and province accessing improved source of drinking water. The general trend from 2010 to 2015 by both Residence and province shows an increase in the proportion of households accessing improved source of drinking water.

Figure 14.2: Percentage Distribution of Households Accessing Improved Source of Drinking Water by Residence, Zambia, 2010 and 2015.



14.3.3. Treatment/Boiling of Drinking Water

In Zambia, water supplied through the public water supply systems is normally chlorinated and is assumed to be safe for drinking. However, health authorities encourage households to boil or treat their drinking water as an added precaution. Water treatment is encouraged especially for those households whose main sources of drinking water are considered unsafe.

Figure 14.3: Percentage Distribution of Households Accessing Improved Source of Drinking Water by Province, Zambia, 2010 and 2015.

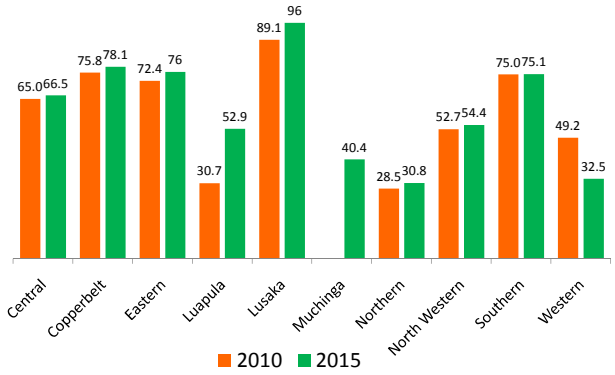


Table 14.6 shows the proportion of households by residence, stratum and province who treated or boiled their drinking water. At national level, 24.7 percent of households treated or boiled their water while 74.9 percent of households did not treat or boil their water. Analysis by Residence shows that the proportion of rural households who treated or boiled their drinking water was about 18 percent, compared to 33.6 percent in urban areas.

At provincial level, Copperbelt and Central provinces had the highest proportions of households who treated or boiled their drinking water, at 48 and 37.9 percent, respectively. Western Province had the lowest proportion of households who treated or boiled their drinking water at 5 percent.

Table 14.6: Proportion of Households who Treated/Boiled Drinking Water by Residence, Stratum and Province, Zambia, 2015.

Residence/ Stratum/ Province	Proportion that Treated/Boiled drinking water	Proportion that did not Treat/Boil drinking water	Not stated	Total	Total number of households
Total Zambia	**24.7**	**74.9**	**0.4**	**100**	**3,014,965**
Residence					
Rural	18.0	82.0	0.0	100	1,718,060
Urban	33.6	65.5	0.8	100	1,296,905
Stratum					
Small Scale	17.5	82.5	0.0	100	1,542,587
Medium Scale	27.7	72.3	0.0	100	56,974
Large Scale	35.1	62.6	2.4	100	2,807
Non-Agric	19.4	80.6	0.1	100	115,692
Low Cost	32.3	67.5	0.2	100	996,975
Medium Cost	34.3	64.4	1.2	100	166,580
High Cost	42.3	52.4	5.2	100	133,350
Province					
Central	37.9	62.0	0.0	100	292,049
Copperbelt	48.0	51.1	0.9	100	450,843
Eastern	14.3	85.7	0.0	100	342,161
Luapula	23.9	76.1	0.0	100	207,612
Lusaka	22.9	76.0	1.1	100	592,073
Muchinga	23.4	76.6	0.0	100	174,832
Northern	19.1	80.8	0.1	100	253,779
North Western	15.7	84.2	0.0	100	164,141
Southern	17.0	82.9	0.0	100	338,259
Western	5.3	94.5	0.2	100	199,215

Figures 14.4 and 14.5 shows the trend of proportion of households by residence and province who treated or boiled their drinking. There was a decline in the proportion of households who treated or boiled their drinking water at national level from 32.0 percent to 24.7 percent. A higher reduction is observed in rural areas from 54.0 percent to 33.6 percent.

Figure 14.4: Proportion of Households who Treated/ Boiled Drinking Water by Residence, Zambia, 2010 and 2015.

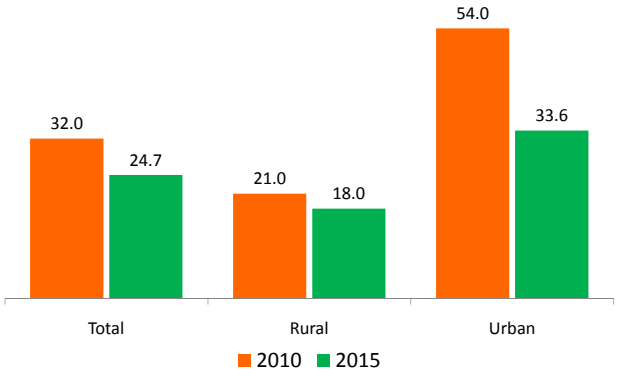
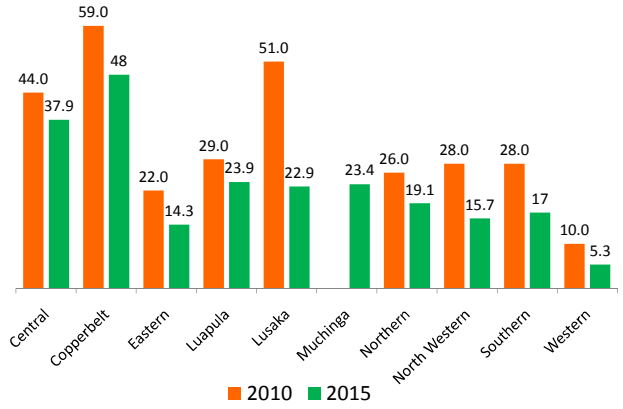


Figure 14.5: Proportion of Households who Treated/ Boiled Drinking Water by Province, Zambia, 2010 and 2015.



14.3.4. Connection to Electricity

The survey collected data on connection to electricity. Table 14.7 show the percentage distribution of households connected to electricity by Residence, stratum and province.

At national level, 31 percent of households stated being connected to electricity.

About 4.4 percent of households in rural areas had connection to electricity while 95.6 percent were not connected. In urban areas 67.3 percent of households had connection to electricity while 32.7 percent were not connected.

At provincial level, Lusaka Province had the highest proportion of households connected to electricity at 70.6 percent while Western Province had the lowest at 6 percent.

Table 14.7: Percentage Distribution of Households by Electricity Connection by Residence, Stratum and Province, Zambia, 2015.

Residence/ Stratum/ Province	Proportion that is connected to electricity	Proportion that is not connected to electricity	Not stated	Total	Total number of households
Total Zambia	**31.4**	**68.5**	**.0**	**100.0**	**3,014,965**
Residence					
Rural	4.4	95.6	.0	100.0	1,718,060
Urban	67.3	32.7	0.0	100.0	1,296,905
Stratum					
Small Scale	2.4	97.6	.0	100.0	1,542,587
Medium Scale	5.2	94.8	0.0	100.0	56,974
Large Scale	20.0	75.1	4.9	100.0	2,807
Non-Agric	29.9	70.0	.1	100.0	115,692
Low Cost	60.6	39.4	0.0	100.0	996,975
Medium Cost	88.3	11.7	0.0	100.0	166,580
High Cost	91.3	8.7	0.0	100.0	133,350
Province					
Central	19.6	80.4	0.0	100.0	292,049
Copperbelt	58.0	42.0	.0	100.0	450,843
Eastern	7.8	92.2	0.0	100.0	342,161
Luapula	6.5	93.5	0.0	100.0	207,612
Lusaka	70.6	29.3	.0	100.0	592,073
Muchinga	17.1	82.9	0.0	100.0	174,832
Northern	8.9	91.1	0.0	100.0	253,779
North Western	13.9	86.1	0.0	100.0	164,141
Southern	24.7	75.3	.0	100.0	338,259
Western	6.0	93.8	.2	100.0	199,215

Figure 14.6: Household's Connectivity to Electricity by Residence, Zambia, 2010 and 2015.

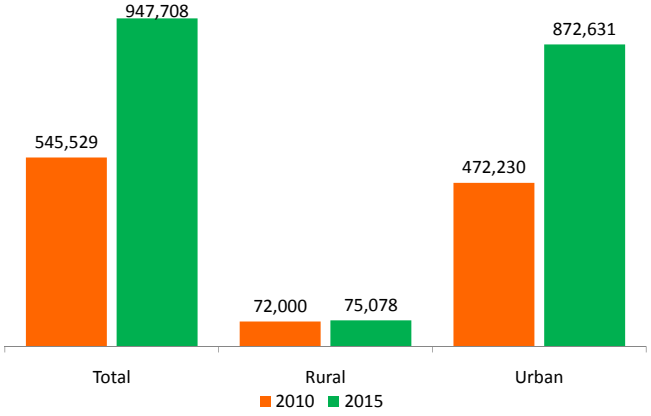
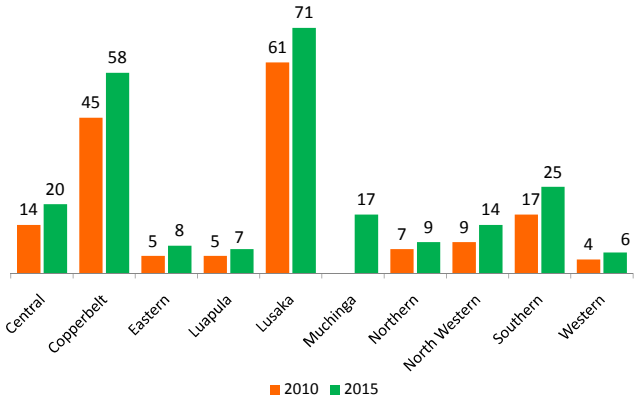


Figure 14.7: Percentage Distribution of Households' Connectivity to Electricity by Province, Zambia , 2010 and 2015.



14.3.5 Sources of Lighting Energy

Data relating to the main type of energy used for lighting by households was also collected in the 2015 LCMS survey.

Table 14.8 shows the percentage distribution of households by main type of lighting energy by Residence, stratum and province. At national level, 45.7 percent of households used a torch as a main source of lighting energy. This was followed by Electricity, used by 31.2 percent of the households.

Analysis by Residence shows that, in rural areas torch was the most commonly used source of lighting energy at 70.6 percent, followed by solar panel at 7.4 percent. In urban areas the most commonly used source of lighting energy was Electricity 67.6 percent, followed by candle at 16.3 percent.

In Eastern Province, a torch was the most commonly used source of lighting energy at 73.1 percent while electricity was the most commonly used in Lusaka Province at 70.9 percent.

Table 14.8: Percentage Distribution of Households by Main Type of Lighting Energy by Residence, Stratum and Province, Zambia, 2015.

Residence/ Stratum/ Province	Type of lighting energy									Not stated	Total	Total number of households
	Kerosene/ paraffin	Electricity	Solar panel	Candle	Diesel	Open fire	Torch	None	Other			
Total Zambia	**1.3**	**31.2**	**4.6**	**10.6**	**0.2**	**2.5**	**45.7**	**1.6**	**2.3**	**0.0**	**100**	**3,014,965**
Residence												
Rural	1.6	3.7	7.4	6.2	0.3	4.3	70.6	2.4	3.4	0.0	100	1,718,060
Urban	0.8	67.6	0.8	16.3	0.1	0.2	12.8	0.4	0.9	0.0	100	1,296,905
Stratum												
Small Scale	1.7	1.8	7.1	5.9	0.2	4.5	72.8	2.6	3.5	0.0	100	1,542,587
Medium Scale	0.5	4.2	18.2	3.0	0.4	1.2	70.5	0.0	1.9	0.0	100	56,974
Large Scale	3.5	20.0	23.0	5.2	0.0	0.0	47.3	0.0	0.8	0.3	100	2,807
Non-Agriculture	1.4	27.9	6.1	12.3	1.7	3.1	42.7	2.0	2.7	0.1	100	115,692
Low Cost	1.0	60.8	0.9	20.2	0.1	0.2	15.2	0.5	1.0	0.0	100	996,975
Medium Cost	0.2	88.8	0.7	4.5	0.1	0.0	5.4	0.1	0.2	0.0	100	166,580
High Cost	0.3	92.1	0.5	2.7	0.0	0.2	4.0	0.0	0.2	0.0	100	133,350
Province												
Central	2.5	18.4	6.2	8.4	1.0	1.9	58.9	1.1	1.7	0.0	100	292,049
Copperbelt	0.8	58.1	1.0	18.8	0.1	0.2	19.5	0.4	1.1	0.0	100	450,843
Eastern	0.6	6.9	9.6	3.8	0.0	2.7	73.1	2.8	0.5	0.0	100	342,161
Luapula	3.3	6.3	4.2	9.4	0.0	2.8	61.8	1.9	10.3	0.0	100	207,612
Lusaka	1.1	70.9	1.2	14.7	0.2	0.0	10.5	0.6	0.8	0.0	100	592,073
Muchinga	0.4	16.4	7.9	8.2	0.2	2.9	60.2	0.6	3.2	0.0	100	174,832
Northern	3.9	8.3	5.5	8.5	0.2	2.6	68.3	0.4	2.2	0.0	100	253,779
North Western	0.4	14.4	4.1	7.3	0.2	6.7	53.6	4.4	9.1	0.0	100	164,141
Southern	0.1	24.6	5.9	6.9	0.2	1.6	59.3	0.8	0.5	0.0	100	338,259
Western	0.5	6.0	6.2	9.3	0.0	13.0	56.3	6.5	2.1	0.2	100	199,215

Figure 14.8 shows national percentage distribution of households by main type of lighting energy 2010/2015. The results show that, there was an increase in the percentage of households who used electricity (2010 – 21.6 percent, 2015 – 31.2 percent) and torch (2010 – 11 percent, 2015 – 46.7 percent) as the main source of lighting energy. There was a decline in the use of kerosene/ paraffin (2010 – 27.2 percent, 2015 – 1.3 percent) and candle (2010 – 26 percent, 2015 – 10.6 percent).

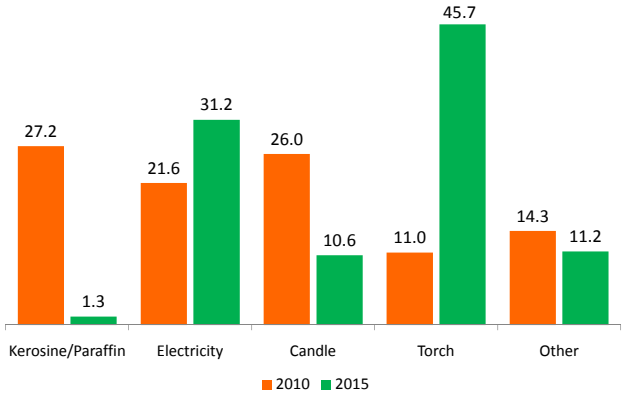
14.3.6 Sources of Cooking Energy

Table 14.9 shows the percentage distribution of households by main type of cooking energy by Residence, stratum and province. At national level, 48 percent of the households used collected firewood as the main source of cooking energy; followed by purchased charcoal with 30 percent and electricity, at 16 percent.

Comparing use of electricity for lighting and cooking; Tables 14.9 and 14.8 indicate a difference in the proportion of households that used electricity for lighting, (31 percent) and those that used electricity for cooking (16 percent). This shows that even if some households had access to electricity, they mostly used it for lighting than cooking.

Analysis by Residence shows that 84.5 percent of rural households used firewood for cooking, followed by charcoal at 13.2 percent; and electricity with 2 percent of households citing that they used it. In urban areas, most households used charcoal for cooking at 59.1 percent, followed by electricity at 34.5 percent and firewood at 6 percent.

Figure 14.8: National Percentage Distribution of Households by Main Type of Lighting Energy, Zambia, 2010 and 2015.



At provincial level, Lusaka and Copperbelt provinces had the highest proportions of households that used electricity for cooking, with 41 percent and 25 percent respectively. Northern Province had the lowest proportion of households that used electricity for cooking at 2 percent.

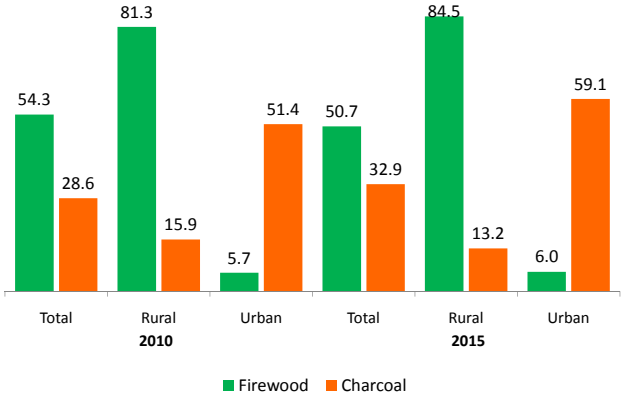
In all provinces, use of charcoal as the main type of cooking energy was very common except for Western and Eastern provinces with 11 percent and 12 percent of households, respectively. Further, Luapula Province had the highest proportion of households that used own produced charcoal for cooking at 13 percent. In the other provinces, use of firewood for cooking was common among all households. Other types of energy for cooking like solar, kerosene/paraffin/gas and coal were less common among households.

Table 14.9: Percentage Distribution of Households by Main Type of Cooking Energy by Residence, Stratum and Province, Zambia, 2015.

Residence/ Stratum/ Province	Type Of Energy for Cooking											Not Stated	Total	Total Number of Households
	Collected Firewood	Purchased Firewood	Charcoal Own Produced	Charcoal Purchased	Coal	Kerosene/ Paraffin	Gas	Electricity	Solar	Crop/ Livestock Residues	Other			
Total Zambia	**48.2**	**2.5**	**3.3**	**29.6**	**0.0**	**0.0**	**0.1**	**16.0**	**0.0**	**0.0**	**0.1**	**0.0**	**100**	**3,014,965**
Residence														
Rural	82.2	2.3	3.6	9.6	-	-	0.1	2.1	0.1	-	0.1	0.0	100	1,718,060
Urban	3.2	2.8	2.9	56.2	0.1	0.0	0.1	34.5	0.0	0.1	0.1	-	100	1,296,905
Stratum														
Small Scale	84.6	2.3	3.6	8.4	-	-	0.1	0.9	0.1	-	0.1	0.0	100	1,542,587
Medium Scale	84.2	2.0	4.5	6.7	-	-	-	2.6	-	-	-	-	100	56,974
Large Scale	65.8	-	2.6	20.4	-	-	-	10.9	-	-	-	0.3	100	2,807
Non-Agric	49.1	3.1	2.9	26.9	-	-	0.2	17.6	-	-	0.1	0.1	100	115,692
Low Cost	3.9	3.4	3.4	64.7	0.1	-	0.0	24.4	0.0	0.1	0.1	-	100	996,975
Medium Cost	0.9	1.0	1.4	35.1	-	0.1	0.6	60.8	-	-	0.1	-	100	166,580
High Cost	1.0	0.5	1.3	19.4	-	0.2	0.2	77.3	-	-	0.2	-	100	133,350
Province														
Central	64.4	1.6	1.2	21.2	-	0.1	-	11.4	0.2	-	-	-	100	292,049
Copperbelt	11.1	5.2	5.5	53.2	-	0.1	-	24.7	0.0	-	0.2	0.0	100	450,843
Eastern	84.2	1.8	0.5	11.0	0.1	-	0.0	2.3	-	-	-	-	100	342,161
Luapula	50.9	4.3	13.0	29.4	-	-	-	2.4	-	-	0.1	-	100	207,612
Lusaka	7.4	1.0	1.9	48.3	-	-	0.3	40.9	-	0.2	0.0	0.0	100	592,073
Muchinga	62.1	2.9	3.0	25.1	-	-	-	6.6	0.1	-	0.2	-	100	174,832
Northern	68.9	3.3	5.2	20.6	0.1	-	-	2.0	-	-	-	-	100	253,779
North Western	68.6	1.7	3.2	20.7	-	-	0.3	5.3	-	-	0.2	-	100	164,141
Southern	63.2	2.1	1.6	17.3	-	-	0.1	15.6	-	-	0.1	-	100	338,259
Western	84.2	1.9	0.9	9.6	-	-	0.0	3.0	0.2	-	-	0.2	100	199,215

Figure 14.9 shows the percentage distribution of households using firewood and charcoal as main source of energy for cooking by Residence 2010/2015 at National level. Utilization of charcoal as type of energy for cooking was 28.6 and 32.9 percent in 2010 and 2015 respectively. Firewood as the main type of energy for cooking decreased in 2015 with 50.7 percent as compared to 54.3 percent households in 2010.

Figure 14.9: Percentage Distribution of Households using Firewood and Charcoal as Main Source of Energy for Cooking by Residence, Zambia, 2010 and 2015.



14.3.7. Toilet Facilities

The survey collected data on households' main toilet facility. The WHO/UNICEF Joint Monitoring Programme (JMP) has established a standard set of sanitation categories that are used for monitoring purposes. An "improved" sanitation facility is one that hygienically separates human excreta from human contact. The following are the improved sanitation facilities.

Improved sanitation (international)
• Flush/ pour flush to pit latrine • Flush toilet • Piped sewer system • Pit latrine with slab or covered pit • Ventilated improved pit latrine • Septic tank

Table 14.10 shows the percentage distribution of households by main type of toilet facility, Residence, stratum and province. The results show that slightly over half of the households countrywide used pit latrines. About 40 percent of households had access to improved sanitation at national level.

Analysis by Residence indicates that about 85 in every 100 rural households did not have access to improved sanitation compared to 27 in every 100 urban households. Analysis by province, shows that 70 in every 100 households in Eastern, Northern, Muchinga, Luapula and North Western provinces were using pit latrines with Northern Province having the highest proportion (about 81 in every 100). Lusaka and Copperbelt provinces had relatively fewer proportions of households using pit latrines 20 and about 40 in every 100 households, respectively.

The results further show that over 75 in every 100 households in Eastern, Northern, Muchinga, Luapula, Western and North-Western provinces had no access to improved sanitation with Western Province having the highest proportion (92 in every 100).

Western Province had the highest proportion of households that had no toilet facilities at 16.1 percent while Copperbelt had the lowest at 0.3 percent.

Table 14.10: Percentage Distribution of Households by Main Type of Toilet Facility, Residence, Stratum and Province, Zambia, 2015.

Residence/ Stratum/ Province	Type of toilet facility														Total number of households
	Own flush toilet inside the household	Own flush toilet outside the household	Own pit latrine with slab	Communal pit latrine with slab	Neighbors'/ another household's pit latrine with slab	Own pit latrine without slab	Communal pit latrine without slab	Pit latrine without slab	Bucket/ other container	Aqua privy	None	Other	Not stated	Total	
Total Zambia	**11.0**	**4.6**	**15.5**	**6.4**	**2.2**	**34.1**	**5.0**	**13.8**	**0.1**	**0.1**	**4.1**	**3.2**	**0.0**	**100.0**	**3,014,965**
Residence															
Rural	0.9	0.6	9.8	2.1	1.3	48.1	5.4	19.4	0.1	0.2	6.9	5.2	0.0	100.0	1,718,060
Urban	24.3	9.9	23.0	12.1	3.5	15.5	4.5	6.3	0.1	0.0	0.4	0.4	0.0	100.0	1,296,905
Stratum															
Small Scale	0.4	0.2	8.9	1.7	1.3	49.8	5.3	19.8	0.1	0.3	7.0	5.3	0.0	100.0	1,542,587
Medium Scale	1.9	0.2	26.0	3.8	0.1	44.1	1.9	15.3	0.0	0.0	4.8	1.8	0.0	100.0	56,974
Large Scale	20.0	2.2	23.4	0.0	0.0	26.7	2.5	18.9	0.0	2.8	3.2	0.0	0.3	100.0	2,807
Non-Agric	6.3	5.6	14.0	7.1	2.0	27.4	7.9	16.6	0.1	0.2	6.4	6.4	0.1	100.0	115,692
Low Cost	12.7	9.2	26.2	14.9	4.3	18.8	5.4	7.5	0.1	0.0	0.5	0.4	0.0	100.0	996,975
Medium Cost	51.7	13.6	17.7	4.0	1.3	6.2	2.0	2.7	0.0	0.0	0.1	0.6	0.0	100.0	166,580
High Cost	76.5	10.6	5.3	1.7	0.3	2.8	0.6	1.5	0.0	0.1	0.3	0.4	0.0	100.0	133,350
Province															
Central	5.5	5.5	17.3	1.9	1.6	44.0	6.8	10.8	0.2	0.0	4.9	1.5	0.0	100.0	292,049
Copperbelt	29.0	14.6	12.6	2.7	1.6	25.1	2.6	10.3	0.2	0.1	0.3	0.7	0.0	100.0	450,843
Eastern	2.1	0.4	10.3	2.5	2.0	47.9	7.2	20.5	0.0	0.0	4.6	2.6	0.0	100.0	342,161
Luapula	2.8	0.1	15.2	1.8	4.2	50.1	3.0	20.3	0.0	0.1	1.2	1.1	0.0	100.0	207,612
Lusaka	18.9	4.7	28.7	21.2	4.9	11.4	5.6	3.3	0.0	0.0	1.1	0.3	0.0	100.0	592,073
Muchinga	5.8	1.8	11.7	4.0	0.4	43.5	6.6	23.7	0.1	0.0	0.7	1.6	0.0	100.0	174,832
Northern	3.3	0.4	10.7	1.3	1.1	57.2	2.7	21.0	0.0	0.0	1.9	0.3	0.0	100.0	253,779
North Western	4.0	0.9	9.4	3.1	1.0	41.2	9.1	28.3	0.0	0.0	1.8	1.2	0.0	100.0	164,141
Southern	8.5	6.1	16.3	5.4	1.6	31.6	3.2	9.5	0.3	0.2	12.5	4.9	0.0	100.0	338,259
Western	2.5	0.6	2.2	1.8	0.4	27.5	5.4	15.6	0.0	1.5	16.1	26.3	0.2	100.0	199,215

Figure 14.10: Percent Distribution of Households by Main Type of Toilet Facility by Province Zambia, 2015.

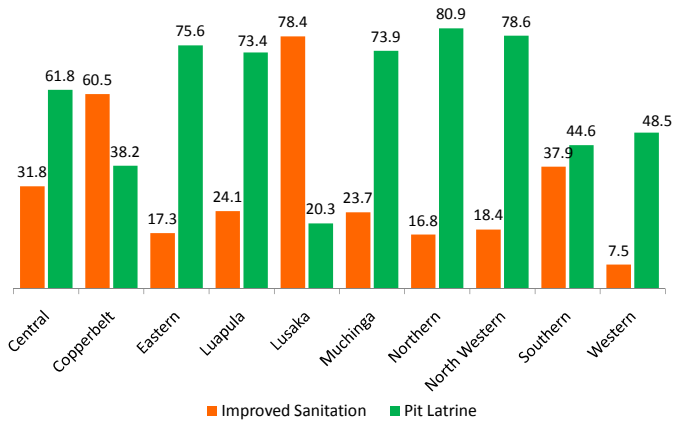
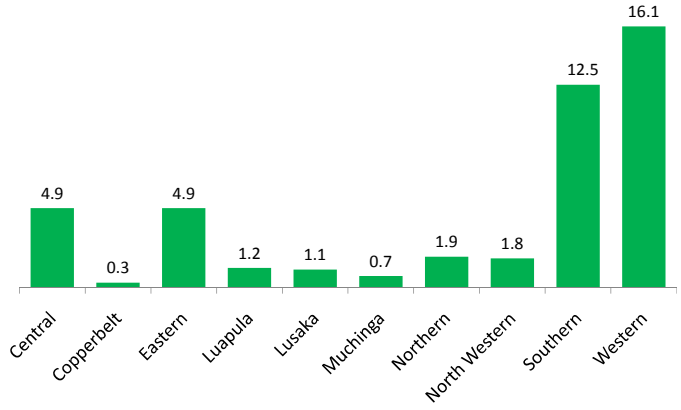


Figure 14.11: Percent Distribution of Households with no Toilet Facility by Province Zambia, 2015.



14.3.8. Sewerage Facilities

Respondents were asked where the sewer was piped to. Table 14.11 and Figure 14.12 show the percentage distribution of households with flush toilets by type of sewage facilities and Residence.

At national level, about 70 percent of households with flush toilets were connected to a piped sewerage system, 28.7 percent disposed- off their sewage in a septic tank, and 0.9 percent in a pit latrine.

Septic tank accounted for the highest type of sewage disposal for rural households, at 61.3 percent. In urban areas piped sewer system accounted for 71.7 percent.

Table 14.11: Percentage Distribution of Households with Flush Toilets by Type of Sewerage Facilities, Residence, Zambia, 2015.

Residence	Flush Toilet by type of Sewage Facilities							Total Number of Households with own Flush Toilet
	Piped Sewer System	Septic Tank	Pit Latrine	Other	Don't know	Not Stated	Total	
Total Zambia	**69.7**	**28.7**	**0.9**	**0.0**	**0.7**	**0.0**	**100.0**	**469,407**
Rural	36.4	61.3	0.7	0.4	1.2	0.0	100.0	25,521
Urban	71.7	26.8	0.9	0.0	0.6	0.0	100.0	443,886

14.3.9. Garbage Disposal

Table 14.12 shows the percentage distribution of households by main type of garbage disposal, residence, stratum and province. The most common method used for disposing garbage in Zambia was pitting at 68 percent, this was followed by dumping at 25.3 percent.

Analysis by residence shows that 68.7 percent of the rural households disposed-off their garbage in a pit, followed by dumping at 30.7 percent. Urban households disposed-off their garbage in a pit at 67.1 percent, followed by dumping at 18.5 percent and 14.4 percent of the households stated that their refuse was collected.

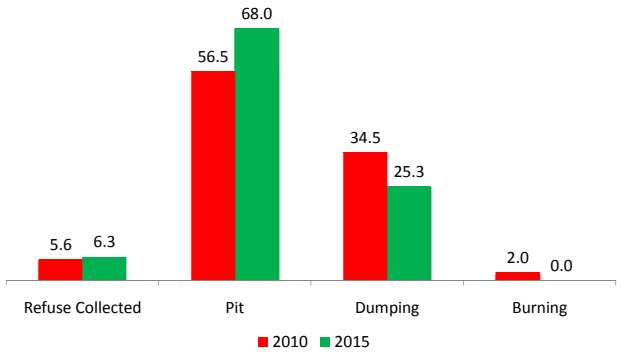
Analysis by province shows that using a pit was the most common method of garbage disposal in all the 10 provinces. Using a pit was the highest in Northern Province at 90.3 percent while it was lowest in Lusaka Province at 52.2 percent. Western Province had the highest proportion of households dumping in undesignated places at 42.7 percent, followed by Southern Province at 32.2 percent and the lowest was Northern Province at 5.1 percent. Eastern Province had the highest proportion of households dumping in designated places at 13.7 percent, followed by Western Province at 10.3 percent and the lowest was Northern Province at 4 percent.

Table 14.12: Percentage Distribution of Households by Main Type of Garbage Disposal, Residence, Stratum and Province, Zambia 2015

Residence/ Stratum/ Province	Type Of Garbage Disposal						Not Stated	Total	Total Number Of Households Who Know Location
	Refuse Collected	Pit	Dumping In Designated Places	Dumping In Undesignated Places	Burning	Other			
Total Zambia	**6.3**	**68.0**	**8.3**	**17.0**	**0.0**	**0.3**	**0.0**	**100**	**3,014,965**
Residence									
Rural	0.2	68.7	8.0	22.7	0.0	0.4	0.0	100	1,718,060
Urban	14.4	67.1	8.9	9.6	-	0.1	-	100	1,296,905
Stratum									
Small Scale	0.1	68.1	8.1	23.1	0.0	0.5	0.0	100	1,542,587
Medium Scale	0.1	72.1	3.9	23.9	-	0.1	-	100	56,974
Large Scale	0.3	75.1	7.7	16.9	-	-	-	100	2,807
Non-Agric	0.9	74.9	7.9	15.9	-	0.2	0.1	100	115,692
Low Cost	9.3	68.9	10.2	11.6	-	0.1	-	100	996,975
Medium Cost	27.2	61.9	6.8	4.0	-	0.2	-	100	166,580
High Cost	36.2	60.5	1.6	1.6	-	0.2	-	100	133,350
Province									
Central	0.4	80.5	6.5	12.6	-	0.0	-	100	292,049
Copperbelt	7.9	75.4	8.2	8.5	-	0.0	0.0	100	450,843
Eastern	0.2	59.6	13.7	26.3	-	0.3	-	100	342,161
Luapula	0.2	84.2	6.8	8.9	-	-	-	100	207,612
Lusaka	24.8	52.2	9.8	13.2	-	0.0	-	100	592,073
Muchinga	0.2	85.4	5.1	9.3	-	-	-	100	174,832
Northern	0.2	90.3	4.0	5.1	0.0	0.5	-	100	253,779
North Western	0.2	74.4	8.0	17.4	-	-	-	100	164,141
Southern	1.0	57.9	7.2	32.2	0.1	1.6	-	100	338,259
Western	0.0	46.2	10.3	42.7	-	0.6	0.2	100	199,215

Figure 14.13 shows the percentage distribution of households by main type of garbage disposal for 2010 and 2015. Disposing of garbage in a Pit was common among 68 percent of households in 2015 as compared to 56.5 percent in 2010. Dumping among households declined from 34.5 percent to 25.3 percent of households in 2010 and 2015, respectively.

Figure 14.13: Percentage Distribution of Households by Residence and Main type of Garbage Disposal, Zambia, 2010 and 2015,



14.4. Access to Facilities

This section presents findings related to household access to various socio-economic facilities. The access is discussed in terms of usage and proximity of households to the nearest facilities.

14.4.1. Use of Amenities

During the Survey, households were asked to indicate whether they knew the location of the nearest facilities. Table 14.13 shows the proportion of households who knew where the nearest facility was by Residence.

At national level, 86.2 percent of households stated knowing the location of the nearest food markets. This was followed by health facility at 85.9 percent. About 9.2 percent of households stated knowing the location of the nearest internet café.

Residence analysis shows that about 85.6 percent of rural households indicated knowing the location of a health facility. In urban areas, the highest proportion of households at 97.3 percent indicated knowing the location of food markets, followed by health facility at 86 .2 percent.

Table 14.13: Proportion of Households with Knowledge of Nearest Facility by Residence, Zambia, 2015.

Nearest Facility	Knowledge of the facility			Total number of households who know of this facility
	Rural	Urban	All Zambia	
Food Market	77.8	97.3	86.2	2,597,983
Post Office/postal agency	30.1	49.8	38.6	1,162,433
Community School	23.0	28.7	25.4	766,124
Lower Basic school (1-4)	7.5	13.2	9.9	298,850
Middle Basic School (1-7)	38.7	32.6	36.1	1,088,255
Upper Basic School (1-9)	65.2	62.5	64.0	1,929,144
High School	11.2	23.5	16.5	497,460
Secondary School	43.0	63.6	51.9	1,562,732
Health facility (Health post/ centre/ clinic/ hospital)	85.6	86.2	85.9	2,588,422
Hammer mill	83.3	49.7	68.9	2,075,300
Input market (for seeds, fertilizer, agricultural implements)	35.3	23.9	30.4	916,139
Police station/post	43.4	80.1	59.2	1,784,113
Bank	28.7	53.1	39.2	1,181,802
Public transport (road, or rail, or water transport)	55.9	79.1	65.9	1,985,661
Public phone	3.3	9.6	6.0	181,808
Internet cafe	2.9	17.5	9.2	277,168

Table 14.14 shows the proportion of households who use the nearest facility, by Residence. At national level, the most widely used facility was health facility at 97.6 percent. This was followed by public transport at 97.1 percent. The least used facility was public phone at 20.5 percent.

Analysis by residence shows that the most widely used facility in rural areas was health facility at 98.9 percent, followed by hammer mill at 96.8 percent. The least was internet café at 15.9 percent. In urban areas, the most widely used facility was food market at 98.3 percent, followed by health facility at 96 percent. The least used facility in urban areas was public phone at 18.7 percent.

Table 14.14: Proportion of Households who use the Nearest Facility by Residence, Zambia, 2015,

Nearest Facility	Usage of the facility			Total Number of Households who used the Facility
	Rural	Urban	All Zambia	
Food Market	93.7	98.3	95.9	2,491,967
Post Office/postal agency	35.8	58.2	48.2	560,538
Community School	46.8	29.7	38.5	295,288
Lower Basic school (1-4)	50.8	44.6	47.2	141,167
Middle Basic School (1-7)	64.2	50.7	59.0	641,895
Upper Basic School (1-9)	65.5	53.8	60.6	1,169,168
High School	25.1	30.3	28.3	140,745
Secondary School	31.2	36.7	34.1	532,929
Health facility (Health post/ centre/ clinic/ hospital)	98.9	96.0	97.6	2,526,698
Hammer mill	96.8	64.9	86.9	1,803,053
Input market (for seeds, fertilizer, agricultural implements)	78.8	39.0	65.4	599,020
Police station/post	64.8	80.2	73.7	1,315,578
Bank	35.6	61.9	51.0	602,264
Public transport (road, or rail, or water transport)	96.7	97.4	97.1	1,927,623
Public phone	24.4	18.7	20.5	37,318
Internet cafe	15.9	42.5	37.6	104,343

14.4.2. Proximity to Facilities

This section analyses the proximity of households to the nearest facilities. Table 14.15 shows the percentage distribution of households by proximity to nearest facilities by Residence.

At national level, the results show that more than 75 percent of households were within a 5km radius of key socio-economic facilities, which included a food market, middle or upper basic school, health facility, a hammer mill or public transport.

Analysis by Residence shows that urban households had more comparative advantage in terms of access to all the facilities than rural households. Most of the urban households stated that almost all facilities were within 1 kilometer except for post office, high school and bank, which were stated to be within 5 kilometers.

Overall, more than 50 percent of rural households were at a distance of over 16km from major amenities such as a Post office (63.5 percent), Bank (68.8 percent), public phone (58 percent) and Internet café (64.2 percent).

Table 14.15: Percentage Distribution of Households by Proximity to Facilities, Zambia, 2015.

	Residence	Less than 1km	2 - 5km	6 - 15km	16+km	Total	Total number of households who know location
Food Market	Total	52.8	23.0	13.0	11.1	100	2,546,439
	Rural	24.7	29.6	24.3	21.4	100	1,307,105
	Urban	82.5	16.1	1.2	0.2	100	1,239,334
Post Office/postal agency	Total	26.2	30.4	15.2	28.3	100	1,143,178
	Rural	4.4	7.6	24.5	63.5	100	503,343
	Urban	43.3	48.3	7.8	0.6	100	639,835
Community School	Total	61.9	28.4	7.4	2.4	100	737,534
	Rural	42.0	40.1	13.7	4.1	100	378,936
	Urban	82.8	15.9	0.7	0.5	100	358,598
Lower Basic school (1-4)	Total	69.9	22.4	5.7	2.0	100	282,545
	Rural	46.5	35.3	13.6	4.6	100	115,232
	Urban	86.0	13.5	0.3	0.2	100	167,313
Middle Basic School (1-7)	Total	55.3	34.2	9.0	1.5	100	1,072,247
	Rural	39.0	44.7	13.9	2.4	100	653,512
	Urban	80.8	17.8	1.4	0.1	100	418,735
Upper Basic School (1-9)	Total	51.0	36.2	10.7	2.1	100	1,904,960
	Rural	32.7	46.1	17.9	3.3	100	1,103,700
	Urban	76.2	22.5	0.9	0.4	100	801,260
High School	Total	29.0	35.7	18.4	16.9	100	483,799
	Rural	10.1	19.0	29.0	41.9	100	183,268
	Urban	40.6	45.9	11.9	1.6	100	300,531
Secondary School	Total	32.5	31.6	17.9	17.9	100	1,530,589
	Rural	10.5	21.1	31.9	36.6	100	716,955
	Urban	52.0	40.9	5.7	1.4	100	813,634
Health facility (Health post/ center/ clinic/ hospital)	Total	40.1	34.7	18.8	6.4	100	2,548,850
	Rural	18.9	38.6	31.4	11.1	100	1,448,174
	Urban	67.9	29.7	2.2	0.2	100	1,100,676
Hammer mill	Total	65.3	24.5	8.1	2.1	100	2,052,268
	Rural	55.9	29.8	11.5	2.8	100	1,413,302
	Urban	86.0	13.0	0.7	0.3	100	638,966
Input market (for seeds, fertilizer, agricultural implements)	Total	23.3	26.2	18.7	31.9	100	905,486
	Rural	9.7	17.8	24.6	47.9	100	598,435
	Urban	49.8	42.4	7.1	0.7	100	307,051
Police station/post	Total	41.7	25.3	14.1	18.9	100	1,749,916
	Rural	7.3	16.9	31.2	44.6	100	726,557
	Urban	66.1	31.2	2.0	0.7	100	1,023,359
Bank	Total	21.1	36.8	13.3	28.9	100	1,160,262
	Rural	3.2	7.0	21.0	68.8	100	477,737
	Urban	33.6	57.6	7.9	0.9	100	682,525
Public transport (road, or rail, or water transport)	Total	74.2	14.3	7.3	4.2	100	1,960,975
	Rural	52.6	24.1	14.8	8.4	100	944,919
	Urban	94.2	5.2	0.2	0.4	100	1,016,056
Public phone	Total	47.6	28.9	7.5	16.0	100	167,720
	Rural	14.5	7.7	19.9	58.0	100	45,674
	Urban	59.9	36.9	2.9	0.2	100	122,046
Internet cafe	Total	55.9	28.4	4.7	11.0	100	267,035
	Rural	5.1	8.3	22.4	64.2	100	42,698
	Urban	65.6	32.2	1.3	0.9	100	224,337

CHAPTER 15
CHILD HEALTH AND NUTRITION

15.1. Introduction

This chapter presents an analysis on the nutrition and health status of children under the age of 5 years. The nutrition and health status of a child can be a direct indicator of the wellbeing and poverty status of the household. It further reflects on the community's nutritional status and is also widely regarded as an important basic indicator of welfare in an economy. There are two reasons that are used to support this important statement:

- *There is likely to be significant economy-wide benefits from improved nutrition and health status. In particular, there are likely to be important benefits in terms of improved mental and physical productivity, and in reduced health care requirements.*
- *Societies in general have a particular aversion to malnutrition and to its correlate, hunger.*

Against this background it is important to note that description and analysis of the levels and determinants of malnutrition, and in particular child malnutrition, not only provide information on the overall welfare of the economy, but furthermore can assist in advocacy, policy-making, planning, targeting and growth monitoring activities by various stakeholders interested in the welfare of children in Zambia.
Under this section, the survey collected information on the following:

- *Child Feeding Practices: breastfeeding and feeding on solids*
- *Immunisation: BCG, DPT, polio and measles*
- *Anthropometric Data: child's age, height and weight.*

The anthropometry information was collected for all children aged 0-59 months (i.e. under 5 years) who were in the survey households whether they were children of the head of household or not.

15.2 Child Feeding Practices

A child's nutritional future begins before conception with the mother's nutritional status prior to pregnancy. The damaging effects of malnutrition can pass from one generation to the next, so can the benefits of good nutrition. Therefore, giving a child a solid nutritional start has an impact for life on her or his physical, mental and social development. Poor nutritional status weakens the immune system, making a child susceptible to disease, increasing severity of illness and impeding recovery. Therefore, the pattern of infant feeding has an important influence on both the child and the mother. Feeding practices are the principal determinants of the child's nutritional status. Poor nutritional status in young children exposes them to great risks of morbidity.

15.3 Breastfeeding Status

UNICEF and WHO recommend that children be exclusively breastfed during the first 6 months of life and that they be given age-appropriate solid or semisolid complementary food in addition to continued breastfeeding from 6 months of age to at least the age of 24 months (WHO/UNICEF, 2002; PAHO/WHO, 2004). The National Food and Nutrition Strategic Plan 2011-2015 (National Food and Nutrition Commission [NFNC], 2011), the First 1,000 Most Critical Days Programme 2013-2015 (NFNC, 2013), and the National Health Strategic Plan 2011-2015 (MoH, 2011) promote exclusive breastfeeding from birth through to age 6 months and, thereafter, the introduction of semisolid or solid foods along with continued breast milk until the child is at least 2 years. Introducing breast milk substitutes to infants before 6 completed months can contribute to breastfeeding failure. These substitutes, such as milk formula, other kinds of milk, and porridge, lack important nutrients such as fatty acids and antibodies required especially to improve on the health of the baby.

Furthermore, possible contamination of these substitutes exposes infants to the risk of illness. Zambia's Statutory Instrument No. 48 of 2006 promotes and protects breastfeeding and regulates the unauthorised or unsolicited sale and distribution of breast milk substitutes (Government of Zambia, 2006). After six completed months, a child requires adequate complementary foods for normal growth. Lack of appropriate complementary feeding may lead to malnutrition and frequent illnesses, which in turn may lead to death. However, even with complementary feeding, the child should continue to be breastfed for two years or more.

Table 15.1 shows the proportion of children under 5 years who were being breastfed by Residence, sex and age group at the time of the survey. The results show that 40.2 percent of children were being breastfed. The proportion of children who were being breastfed was higher in rural areas (41.6 percent) than in urban areas (37.5 percent).

Analysis by age group shows that the proportion of children who were being breastfed decreases steadily with age. Of children aged 0-3 months 96.8 percent were being breastfed as compared to 91.6 percent of children aged 10-12 months and 18.6 percent of children aged 22-24 months.

Table 15.1: Proportion of children (under five-years) who were Currently Being Breastfed by Sex of Child, Age Group and Residence, Zambia, 2015.

Sex and Age Group	Breastfeeding			
	All Children	Rural	Urban	Total number of children under 5 years
Total Zambia	**40.2**	**41.6**	**37.5**	**1,664,150**
Male	40.5	42.1	37.7	809,304
Female	39.9	41.2	37.3	854,846
0-3	96.8	98.6	94.1	153,139
4-6	96.2	98.1	93.0	93,086
7-9	97.4	98.7	95.3	98,514
10-12	91.6	92.8	88.7	101,471
13-15	87.2	86.8	87.7	88,631
16-18	67.6	78.6	50.2	102,453
19-21	39.7	50.8	14.0	81,900
22-24	18.6	24.6	6.3	129,628
25-27	11.5	14.4	3.0	79,509
28-30	8.2	8.6	7.4	87,923
31-33	8.4	7.3	11.0	72,478
34-36	2.9	3.5	2.1	148,158
37 and above	2.8	3.1	2.1	427,259

Figure 15.1 shows the proportion of children under 5 years who were being breastfed by Residence and Age group. The results show marginal differences in breastfeeding status of children in lower age groups for rural and urban areas. However, after the age of 15 months up to 30 months, breastfeeding status declines in urban than in rural areas.

Figure15.1: Proportion of Children Currently being Breastfed by Age-Group (months) and Residence, Zambia, 2015.

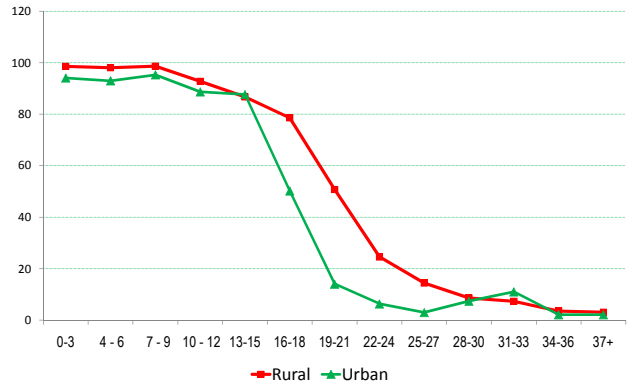


Table 15.2 shows the distribution of children aged 0-6 months by breastfeeding status, age-group, Residence and province. For children who were being breastfed, the table gives details of whether they were exclusively breastfed, or received water in addition to breast milk, or any supplements.

Supplements in this table are defined as at least one of the following:

- *Any milk other than breast milk (e.g. S26, lactogen, promil or baby formula, fresh milk, soya milk, goat's milk, etc.)*
- *Other fluids*
- *Solid foods (e.g. custard, cerelac or other cereal, vitaso, porridge, nshima, etc.).*

The results show that 61.6 percent of children aged 0-6 months were exclusively breastfed. The results also show that 28.9 percent of children received supplements in addition to breast milk in the first 6 months of life while 5.8 percent received plain water in addition to breast milk. The proportion of exclusively breastfed children was more in urban areas (61.8 percent) than in rural areas (61.5 per cent).

The results further show that 85.0 percent of children aged 0-3 months were being breastfed exclusively. Above the age of 3 months, 23.0 percent of children aged 4-6 months were exclusively breastfed.

At provincial level, Western Province had the highest proportion of exclusively breastfed children aged 0-6 months with 73.3 percent, followed by Southern (70.6 percent) and Lusaka Province (69.9 percent). Luapula Province had the lowest proportion of exclusively breastfed children with 47.7 percent.

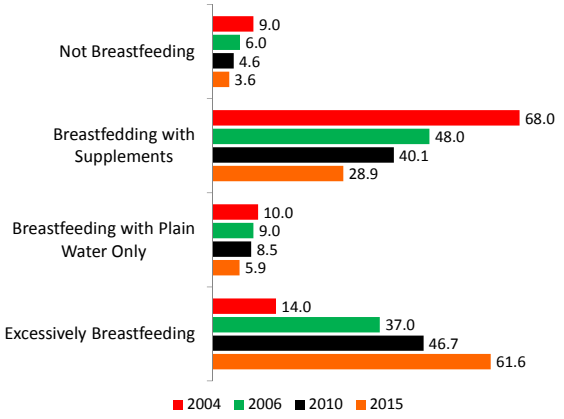
By poverty status, the results show that among the extremely poor households 57.9 percent of their children were exclusively breastfed compared to 58.3 percent among the moderately poor. Further, 65.6 percent of the children among the non-poor households were exclusively breastfed. The proportion of children breastfed with supplements among the extremely poor households was 1.3 percentage points higher than that of the moderately poor households at 32.3 percent and 31 percent, respectively.

Table 15.2: Percentage Distribution of Children (0-6 Months) by Breastfeeding Status, Sex of Child, Age Group, Residence, Poverty Status and Province, Zambia, 2015.

Sex, Age, Poverty Status and Province	Breastfeeding Status					
	Not Breastfeeding	Exclusive Breastfeeding	Breastfeeding With Plain Water Only	Breastfeeding With Supplements	Total	Total Number Of Children Aged 0 - 6 Months
Total Zambia	**3.6**	**61.6**	**5.8**	**28.9**	**100**	**231,480**
Sex						
Male	3.4	57.6	6.2	32.9	100	110,183
Female	3.9	65.2	5.6	25.3	100	121,720
Age in Months						
0 - 3	3.4	85.0	6.1	5.6	100	144,368
4 - 6	4.1	23.0	5.5	67.4	100	87,535
Residence						
Rural	1.7	61.5	7.2	29.5	100	141,662
Urban	6.6	61.8	3.7	27.9	100	90,241
Poverty Status						
Extremely Poor	2.2	57.9	7.6	32.3	100	93,828
Moderately Poor	3.4	58.3	7.4	31.0	100	27,162
Non Poor	4.9	65.6	4.0	25.5	100	110,490
Province						
Central	5.7	55.1	1.9	37.2	100	21,559
Copperbelt	8.6	48.3	2.8	40.4	100	29,318
Eastern	1.4	68.5	7.8	22.3	100	31,753
Luapula	.1	47.7	7.0	45.2	100	18,324
Lusaka	4.3	69.9	4.0	21.9	100	42,463
Muchinga	4.9	54.6	8.0	32.5	100	15,577
Northern	1.8	62.1	16.1	20.0	100	21,025
North Western	3.9	50.0	14.5	31.7	100	9,466
Southern	2.7	70.6	2.0	24.7	100	26,658
Western	.9	73.3	2.5	23.3	100	15,760

Figure 15.2 presents national trends on infant and young child feeding (IYCF) practices for the years 2004, 2006, 2010 and 2015. The percentage of infants and young children who were exclusively breastfed has increased from 14 to 61.6 percent between 2004 and 2015 surveys. The percentage of children (0-6 months) fed on supplements has decreased from 68 percent in 2004 to 28 percent in 2015.

Figure 15.2: Infant and Young Child Feeding (IYCF) Indicators on Breastfeeding Status, Zambia, 2004 - 2015



15.4 Frequency of Feeding on Solids

The survey collected information on the frequency of consumption of solid foods by children (0-59 months). Infants and young children eat small quantities of food at a go therefore, frequent meals are necessary to provide them with required nutrients. It is recommended that infants aged 6-8 months eat 2-3 meals, and infants aged 19-23 months eat 3-4 meals per day and 1-2 additional snacks as required (WHO, 1998). The number of meals required is based on the energy density of foods being fed. Consuming an appropriate variety of foods is essential for the child's nutritional wellbeing. Solid foods can be nshima, rice, potatoes, porridge, cerelac, other cereals, vitaso, custard, etc.

Table 15.3 shows the percentage distribution of how many times children (0-59 months) are given solid foods, by sex of child, age group, Residence and province. The results show that 44 percent of the children (0-59 months) received solid/semi-solid foods 3 times a day while 12.4 percent received solid/semi-solid foods 4 times a day. The results also show that there were differences in child feeding frequency between rural and urban areas. The results indicate that 46.4 percent and 39.7 percent of children in rural and urban areas were fed on solid/semi-solid foods 3 times a day, respectively.

At provincial level, Eastern Province had the highest percentage of children who were fed thrice in a day, with 56.2 percent followed by N/Western Province with 51.5 percent. Other provinces that had high proportions of children that were fed thrice in a day were Southern (50.5 percent) and Central (49.0 percent). Among the provinces with low percentages of children who were fed three (3) times in a day were Luapula (29.0 percent) and Muchinga (36.4 percent).

Table 15.3: Percentage Distribution of how many Times Children (0-59 months) are given Solid Foods by Sex of Child, Age Group, Residence and Province, Zambia, 2015.

	Number of Times given Solid Foods								
Sex of Child, Age Group, Residence and Province	Once	Twice	Thrice	Four Times	Five Times	More Than Five Times	Not Yet Started on Solids	Total	Total Number of Children Under 5 Years
Total Zambia	**3.4**	**23.9**	**44.0**	**12.4**	**3.0**	**2.5**	**10.7**	**100**	**1,664,150**
Sex									
Male	3.4	25.2	43.2	12.4	2.9	2.6	10.3	100	809,304
Female	3.4	22.7	44.9	12.4	3.0	2.5	11.1	100	854,846
Residence									
Rural	3.9	25.8	46.4	9.5	2.6	1.5	10.3	100	1,073,409
Urban	2.5	20.4	39.7	17.7	3.8	4.4	11.6	100	590,741
Age in Months									
0-3	1.6	3.6	2.8	2.0	.4	.4	89.1	100	153,139
4-6	15.3	35.9	14.0	2.4	.3	1.5	30.5	100	93,086
7-9	12.3	50.5	27.0	4.8	1.3	1.0	3.2	100	98,514
10-12	8.8	33.6	38.0	11.2	2.8	.7	5.0	100	101,471
13-15	5.5	25.9	47.0	13.1	4.9	.8	2.8	100	88,631
16-18	2.4	28.2	46.3	14.7	4.1	4.3	.1	100	102,453
19-21	.6	29.2	44.4	15.8	5.1	3.6	1.3	100	81,900
22-24	1.5	19.5	59.3	12.0	4.6	2.3	.9	100	129,628
25-27	0.0	22.8	51.9	18.8	4.2	2.2	0.0	100	79,509
28-30	2.0	16.6	50.3	21.6	3.8	5.7	0.0	100	87,923
31-33	1.3	22.7	54.7	15.1	5.0	1.2	0.0	100	72,478
34-36	.9	21.2	54.5	17.7	3.4	2.2	0.0	100	148,158
37+	1.3	21.8	56.7	13.8	2.5	3.8	.1	100	427,259
Province									
Central	3.7	16.8	49.0	12.7	5.0	3.0	9.6	100	160,008
Copperbelt	3.1	29.6	37.9	10.6	2.2	8.2	8.2	100	223,256
Eastern	1.6	20.1	56.2	10.0	1.3	1.1	9.8	100	250,646
Luapula	6.5	47.6	29.0	4.1	2.8	.8	9.1	100	140,731
Lusaka	2.2	14.4	40.8	22.1	2.9	2.6	14.9	100	228,225
Muchinga	5.6	29.4	36.4	9.5	4.4	2.4	12.3	100	86,702
Northern	5.5	35.3	37.6	5.5	2.5	1.3	12.3	100	153,217
North Western	2.6	30.1	51.5	6.1	.7	.4	8.6	100	83,893
Southern	2.6	8.5	50.5	20.8	5.4	1.7	10.5	100	221,783
Western	3.9	26.5	43.7	11.6	2.4	.8	11.1	100	115,689

15.5. Immunisation

The induction of an immune response through vaccination is a widely accepted public health strategy for the prevention of vaccine-preventable infectious diseases. To be considered fully vaccinated, a child should have received 1 dose of BCG, 3 doses of DPT, 3 doses of polio and 1 dose of measles vaccine. BCG is given at birth or at first clinical contact; DPT and Polio require 3 doses at approximately age 6, 10 and 14 weeks; and measles vaccine is given soon after age of 9 months. The WHO recommends that a child should complete the schedule of vaccinations before the age of 12 months.

The tables below present immunisation status for children aged 12-23 months. Ideally, the information on doses received was recorded from the child's clinic card, and where this was not available, the information was collected by asking the respondent.

Tables 15.4 and 15.5 report on child immunisation; the former refers to initiated immunisations, i.e. at least 1 dose, and the latter refers to completed immunisations, i.e. the appropriate amount of doses for the respective immunisation.

The results show that most children aged 12-23 months had received at least 1 dose of each of the 4 vaccinations of BCG (97.9 percent), DPT (98.3 percent), Polio (97.2 percent) and Measles (87.8 percent). Vaccination rates are slightly higher in urban than in rural areas, except for Measles vaccinations.

The provinces with the highest percentage of children who had initiated all vaccinations were Copperbelt (97.9 percent), Muchinga (91.2 percent) and North-Western Province (90.3 percent). Luapula (77.9 percent) and Lusaka Province (77.6 percent) had the lowest percentage of children who had initiated all four immunisations.

Table 15.4: Percentage Distribution of Children (12-23 Months) Who Initiated Various Vaccinations (At Least One Dose), by Residence, Age Group and Province, Zambia, 2015.

Residence, Age Group and Province	Source of information Initiated Immunization							Total Number of children 12-23
	Clinic Card	Respondent	BCG	DPT	OVP	Measles	All	
Total Zambia	**69.7**	**30.3**	**97.9**	**98.3**	**97.2**	**87.8**	**86.0**	**360,734**
Residence								
Rural	69.7	30.3	96.9	97.4	97.1	88.1	85.9	228,705
Urban	69.8	30.2	99.6	99.8	97.3	87.4	86.2	132,029
Age Group								
12 - 15	66.0	34.0	98.2	98.0	96.3	84.9	83.4	130,073
16 - 18	70.6	29.4	97.9	98.0	96.0	87.8	85.8	102,453
19 - 21	74.3	25.7	97.4	99.1	99.1	89.9	88.2	81,900
22 - 23	70.3	29.7	98.0	98.4	98.9	92.5	90.0	46,307
Province								
Central	71.5	28.5	98.1	100.0	100.0	87.9	86.0	27,638
Copperbelt	58.4	41.6	99.6	99.6	97.9	99.6	97.9	43,492
Eastern	88.5	11.5	100.0	99.7	99.2	88.5	87.4	55,095
Luapula	65.0	35.0	96.2	94.6	93.6	82.5	77.9	29,695
Lusaka	69.8	30.2	99.5	100.0	96.0	78.0	77.6	56,521
Muchinga	74.1	25.9	97.1	98.5	99.9	92.6	91.2	18,186
Northern	64.1	35.9	92.7	95.4	94.1	87.7	83.4	36,095
North Western	66.7	33.3	99.1	98.8	99.4	90.5	90.3	22,372
Southern	66.4	33.6	98.0	97.7	96.1	88.6	87.0	45,678
Western	65.8	34.2	95.3	96.4	97.6	87.3	85.7	25,960

Figure 15.3: Percentage Distribution of Children (12-23 Months) who Initiated Various Vaccinations (At Least One Dose), by Residence, Age Group and Province, Zambia, 2015.

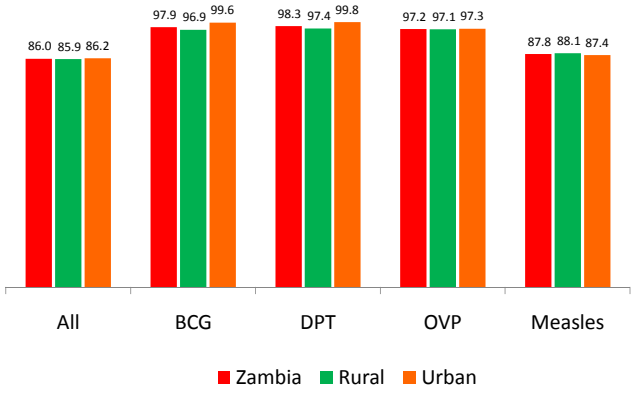


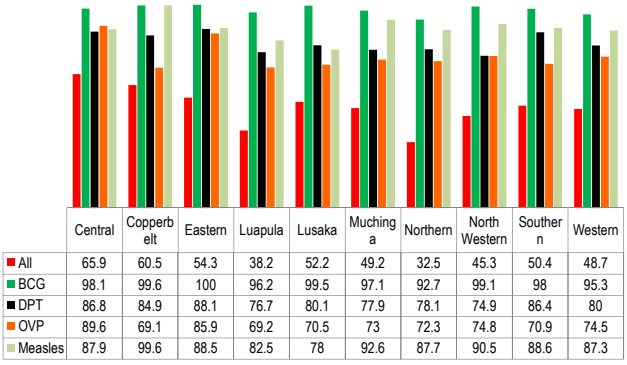
Table 15.5 and Figure 15.4 present information on the proportion of children aged 12-23 months who completed the immunisation process for the four diseases. Where the immunisation only requires 1 dose, the proportion does not differ from Table 15.4 above; however, in the cases of Polio and DPT, there are some considerable differences. In the case of DPT, 98.3 percent of children had initiated the immunisation process by receiving at least 1 dose of the vaccination. However, only 82.3 percent completed the entire cycle. The percentage of children who completed the polio vaccination was 74.9 percent compared to 97.2 percent who had initiated the immunisation process. This also is true for DPT where 98.3 percent had started the process by receiving at least the first dose; however, only 82.3 percent completed the cycle and thus were regarded as fully immunised. As a result the proportion of children aged 12-23 months who had fully completed the immunisation for all 4 vaccinations is 50.4 per cent.

Full immunisation for all the 4 types of diseases was achieved by more than 60 percent of children in this age group in Central and Copperbelt provinces. Lower rates of full immunisation (below 50 percent) were recorded in Luapula, Northern, Muchinga, North-western and Western provinces.

Table 15.5: Percentage Distribution of Children (12-23 Months) who Completed Various Vaccinations (1 Measles, 1 Bcg, 3 Polio, 3 Dpt), By Residence, Age Group And Province, Zambia, 2015.

Residence, Age Group And Province	Source Of Information						Completed Immunization	Total Number Of Children Aged 12-23 Months
	Respondent	Bcg	Dpt	Ovp	Measles	All		
Total Zambia	**69.7**	**30.3**	**97.9**	**82.3**	**74.9**	**87.8**	**50.4**	**360,734**
Residence								
Rural	69.7	30.3	96.9	80.8	74.7	88.1	45	228,705
Urban	69.8	30.2	99.6	84.9	75.3	87.4	59.7	132,029
Age in Months								
12-15	66	34	98.2	79.4	72	84.9	48.7	130,073
16 - 18	70.6	29.4	97.9	81.4	74.3	87.8	49.4	102,453
19 - 21	74.3	25.7	97.4	85.7	81.5	89.9	53.7	81,900
22 - 23	70.3	29.7	98	86.3	73.1	92.5	51.4	46,307
Province								
Central	71.5	28.5	98.1	86.8	89.6	87.9	65.9	27,638
Copperbelt	58.4	41.6	99.6	84.9	69.1	99.6	60.5	43,492
Eastern	88.5	11.5	100	88.1	85.9	88.5	54.3	55,095
Luapula	65	35	96.2	76.7	69.2	82.5	38.2	29,695
Lusaka	69.8	30.2	99.5	80.1	70.5	78	52.2	56,521
Muchinga	74.1	25.9	97.1	77.9	73	92.6	49.2	18,186
Northern	64.1	35.9	92.7	78.1	72.3	87.7	32.5	36,095
North Western	66.7	33.3	99.1	74.9	74.8	90.5	45.3	22,372
Southern	66.4	33.6	98	86.4	70.9	88.6	50.4	45,678
Western	65.8	34.2	95.3	80	74.5	87.3	48.7	25,960

Figure 15.4: Percentage Distribution of Children (12-23 months) who Completed Various Vaccinations (1 measles, 1 BCG, 3 Polio, 3 DPT), by Residence, Age Group and Province, Zambia, 2015.



	Central	Copperbelt	Eastern	Luapula	Lusaka	Muchinga	Northern	North Western	Southern	Western
All	65.9	60.5	54.3	38.2	52.2	49.2	32.5	45.3	50.4	48.7
BCG	98.1	99.6	100	96.2	99.5	97.1	92.7	99.1	98	95.3
DPT	86.8	84.9	88.1	76.7	80.1	77.9	78.1	74.9	86.4	80
OVP	89.6	69.1	85.9	69.2	70.5	73	72.3	74.8	70.9	74.5
Measles	87.9	99.6	88.5	82.5	78	92.6	87.7	90.5	88.6	87.3

15.6. Child Nutritional Status

The information on the nutritional status of children in the 2015 LCMS survey included anthropometric measurements for children under the age of 5 years. These anthropometric measurements allow for measurement and evaluation of the overall nutritional and health status of young children. The evaluation also allows for identification of subgroups of the child population that are at increased risk of faltered growth, disease, impaired mental development and death. The factors that influence nutritional status of children are many. Among them are poverty status of mothers, poor diet and poor environmental conditions of households. These can impair growth in children and result in reduced weight or height.

The three standard indices of physical growth that describe the nutritional status of children are defined as follows:

- *Height-for-Age (Chronic malnutrition) – Stunting*
- *Weight-for-Height (Current malnutrition) – Wasting*
- *Weight-for-Age (Chronic and current malnutrition) – Underweight*

Stunting (height-for-age) is a condition reflecting the cumulative effect of chronic malnutrition.

Wasting (weight-for-height) is a failure to gain weight in relation to height. It is a short-term effect and reflects a recent and severe process that has led to substantial weight loss, usually associated with starvation and/or disease.

Underweight (weight-for-age) is a condition of low weight in relation to age. It is a composite index of weight-for-height and height-for-age and thus does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his/her age because he/she is stunted or wasted, alternatively because he/she is wasted and stunted. Weight for age is a good overall indicator of a population's nutritional health.

The indicators were generated using the WHO "igrowup" software package. As recommended by the WHO, the nutritional status of children in the sample was compared with an international reference population defined by the US National Center for Health Statistics (NCHS) and accepted by the US Center for Disease Control (CDC). The 3 nutritional status indicators reported below apply where a child is two standard deviation units (z-scores) below the reference population mean.

Table 15.6 shows prevalence ranges currently used by the WHO to interpret levels of stunting, underweight and wasting.

Table 15.6: Classification for Assessing Severity of Malnutrition, Zambia, 2015.				
	Severity of Malnutrition by Percentage Ranges (%)			
Severity of Malnutrition	**Low**	**Medium**	**High**	**Very High**
Stunting	<20	20-29	30-39	>=40
Underweight	<10	10-19	20-29	>=30
Wasting	<5	5-9	10-14	>=15

Table 15.7 shows the proportion of children (3-59 months) classified as stunted, underweight, and wasted by Residence, province, mother's level of education and poverty status.

At national level, 49.0 percent of children were stunted while 13.1 percent were underweight and 6.6 percent were wasted,.

Rural-urban analysis indicates a minimum of 1.3 percentage points more stunted, underweight and wasted children in rural than urban. In rural areas, 50.3 percent, 13.7 percent, 7.1 percent were stunted, underweight and wasted compared to 46.5 percent, 12.0 percent and 5.8 percent in urban areas, respectively.

At provincial level, Muchinga had the highest levels of stunting at 62.8 percent while North Western had the lowest stunting levels at 41.0 percent. Further, Luapula Province (22.8 percent) had the highest proportion of underweight children while Muchinga Province at 8.7 percent had the lowest. North Western and Eastern provinces had the highest and lowest proportions of wasted children at 12.7 and 4.2 percent, respectively.

Analysed by level of education of the mother, the results show that the higher the level of education completed by the mother of the child, the less likely to be stunted, underweight or being wasted that child is going to be. Stunting, underweight and wasting occurred most amongst mothers with no education at 54.6 percent, 23.6 percent and 8.1 percent compared to mothers with higher education at 34.1 percent, 2.9 percent and 4.6 percent, respectively.

Analysed by poverty status, the poorer the household is, the higher the likelihood that a child from that household will be stunted, underweight or wasted. The highest proportions of stunted, underweight and wasted children existed among the extremely poor households at 52.4 percent, 15.3 percent and 7.2 percent, respectively. The non-poor had the lowest proportions of stunted, underweight and wasted children. Notably, stunting, underweight and wasting levels were higher than the national average of 49.0 percent, 13.1 percent and 6.6 percent respectively among the children of extremely and moderately poor households.

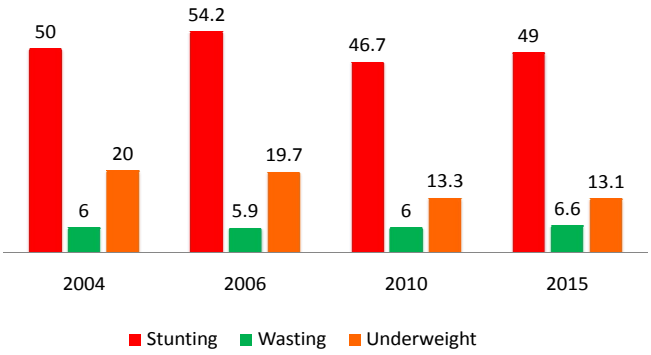
Table 15.7: Proportion of Children (3-59 Months) Classified as Stunted, Underweight, and Wasted by Residence, Province, Mother's Level of Education and Poverty Status, Zambia, 2015.					
Residence, Province, Mother's Level of Education		**Incidence of Physical Development Indices**			**Total Number of children aged 3 - 59 months**
		Stunted	**Underweight**	**Wasted**	
Residence	**Total Zambia**	**49.0**	**13.1**	**6.6**	**1,340,931**
	Rural	50.3	13.7	7.1	871,778
	Urban	46.5	12.0	5.8	469,154
Province	Central	53.9	11.4	5.6	127,315
	Copperbelt	48.4	14.7	6.8	173,536
	Eastern	45.6	11.3	4.2	220,610
	Luapula	57.1	22.8	8.8	117,420
	Lusaka	45.9	11.3	6.2	185,098
	Muchinga	62.8	8.7	5.3	62,530
	Northern	54.3	13.3	8.7	110,224
	North western	41.0	18.8	12.7	71,860
	Southern	43.7	10.2	5.8	175,639
	Western	47.8	11.9	6.7	96,699
Mothers' Education					
Level	No education	54.6	23.6	8.1	141,982
	Not completed primary	49.3	12.5	6.7	397,398
	Completed primary	51.8	12.5	6.4	579,036
	Completed secondary	36.7	8.4	5.9	86,468
	Higher	34.1	2.9	4.6	42,901
	Not stated or mother not in household	40.1	12.6	7.5	93,146
Poverty	All Zambia	48.9	13.1	6.6	1,337,623*
	Extremely Poor	52.4	15.3	7.2	571,894
	Moderately Poor	49.1	14.1	9.2	187,483
	Non Poor	45.4	10.5	5.2	578,246
Note :(*) 0.2 percent of Children Aged 3-59 Months had missing Consumption Data.					

15.7 Trends in Children's Nutritional Status

Figure 15.5 Trends in nutritional status for children under the age of 5, from 2004 to 2015. The percentage of children who are stunted increased from 50 percent in the 2004 to 54.2 percent in 2006 and then declined to 46.7 percent in 2015. Stunting increased from 46.7 percent in 2010 to 49.0 percent in 2015.

The proportion of children who were wasted during the period 2004-2015 decreased from 6 percent in 2004 to 5.9 percent in 2006 and then increased to 6 percent in 2010. Wasting increased from 6 percent in 2010 to 6.6 percent in 2015. The percentage of children who are Underweight decreased from 20 percent in the 2004 to 19.7 percent in 2006 and then declined to 13.3 percent in 2010. There were no major changes in the proportion of underweight children between 2010 and 2015.

Figure 15.5 Trends in Nutritional Status of Children under Age 5, Zambia, 2004-2015



CHAPTER 16
COMMUNITY DEVELOPMENT

16.1 Introduction

Social and economic facilities are an important measure for economic development in terms of improving the welfare of people in a given community. Availability and type of particular facilities differ from place to place and are dependent on the needs of the community.

The survey collected data on social and economic facilities that households desired to be provided or improved in their respective communities.

The survey also collected data on projects or changes that occurred in the community 12 months prior to the survey. Further, data was collected on the extent to which projects had improved the livelihood of households.

16.2 Social and Economic Projects Desired by Households.

Households were asked to indicate at least 4 projects/ facilities of social/economic nature that households desired to be provided or improved in their various communities.

Table 16.1 shows the proportion of households choosing various facilities to be provided by project type and Residence. Households chose a lot of specific type of facilities which were grouped into fourteen (14) broad categories. Although, households had a choice of at least four facilities, it was not mandatory that all the four choices are exhausted, some households chose just one facility.

At national level, the results show that education (41.4 percent), health (41.3 percent) and agriculture (36.3 percent) were the top three most desired projects while hammer mill and security concerns were the least stated facilities at 5.1 percent and 7.5 percent, respectively.

In rural areas, the highest proportion of households (56.8 percent) indicated that they desired Agricultural facilities to be provided while urban households cited Employment at 48.1 percent.

Table 16.1: Proportion of Households by Desired Project/Facility to be Provided, Residence, Zambia, 2015.

Type of project/facility to be provided	All Zambia	Residence	
		Rural	Urban
Number of Households	**3,014,965**	**1,718,060**	**1,296,905**
Health	41.3	49.2	35.6
Food and Other consumer Goods	11.0	15.0	8.0
Water Supply	27.4	36.0	21.1
Education	41.4	36.0	21.1
Agriculture	36.3	56.8	21.3
Roads	27.6	26.4	28.5
Employment	35.4	18.1	48.1
Police/Security	7.5	1.9	11.5
Sanitation	12.5	3.7	18.9
Hammer Mill	5.1	8.9	2.4
Credit	17.0	12.6	20.1
Housing	10.7	3.1	16.2
Transport	27.6	26.4	28.4
Other	1.1	0.9	1.2

Figure 16.1: Proportion of Households by Desired Project/Facility, Zambia, 2015.

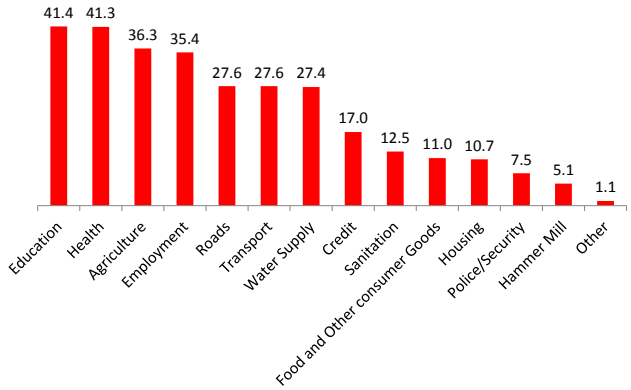


Figure 16.2: Proportion of Households by Desired Project/Facility, Zambia Rural, 2015.

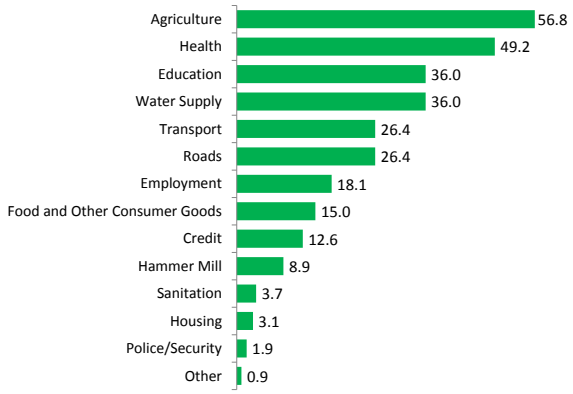


Figure 16.3: Proportion of Households by Desired Project/Facility, Zambia Urban, 2015.

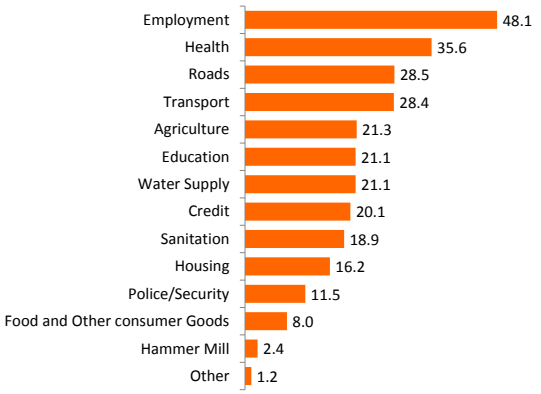
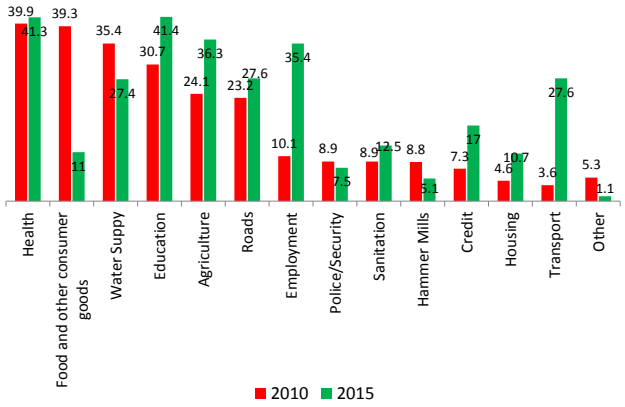


Figure 16.4 shows the proportion of households by desired project/facility in 2010 and 2015. The most desired project/facility in 2015 was Education (41.4), followed by Health (41.3), Agriculture (36.3), Employment (35.4) and Road and Transport jointly at 27.6 percent compared to the preference of Health (39.9), followed by Food and Other consumer goods (39.3), Water Supply (35.4), then education (30.7), Agriculture (24.1) and Roads (23.2 percent) in 2010.

Figure 16.4: Proportion Distribution of Households by Desired Project/Facility, Zambia, 2010 and 2015.



16.3 Households' Desired Project/Facility to be Improved.

In addition to households stating which facility they desired to be provided, the survey also collected information on which facility the households desired to be improved. It was assumed that facilities which they wanted to be improved were already available in the communities but needed upgrading to meet the expectations of the communities in terms of service delivery or direct use by the same communities.

Table 16.2 shows the proportion of households choosing facilities to be improved by project type Residence. At national level, the results show that 'Education' at 41.1 percent was the most cited facility to be improved. This was followed by 'roads' and 'transport' at 40.4 percent each.

Analysis by Residence shows that 46 percent of rural households indicated 'Education' as the facility to be improved in their community. Apart from 'Education', the other facilities which had a significant proportion in the rural areas were, 'roads' (39.9 percent), 'Transport' (39.9 percent) and 'Agriculture' (39.2 percent).

Common among the least facilities to be improved, both in rural and urban, was credit with household proportions of 6.7 percent and 8 percent respectively.

Notable among the facilities that households wanted least improve, particularly in the urban areas was food and other consumer goods with only 7.2 percent.

Table 16.2: Proportion of households by Desired Project/Facility to be Improved and Residence, Zambia, 2015.

Type of Project to be Improved	Residence		All Zambia
	Rural	Urban	
Health	23.5	32.4	27.6
Food and other Consumer Goods	12.7	7.2	10.2
Water Supply	27.7	13.5	21.2
Education	45.6	35.9	41.1
Agriculture	39.2	15.2	28.3
Roads	39.9	40.9	40.4
Employment	13.3	25.9	19.1
Police/Security	10.7	24.0	16.8
Sanitation	7.4	21.3	13.7
Hammer Mills	13.0	4.4	9.1
Credit	6.7	8.1	7.3
Housing	4.5	15.9	9.7
Transport	39.9	40.9	40.4
Other	3.3	2.8	3.1
Number of households (000s)	**1,718,060**	**1,296,905**	**3,014,965**

Figure 16.5 shows proportion of households by desired project/facility to be improved in rural areas. The results show that most desired project/facility to be improved was Education at 45.6 percent each, followed by roads and transport at 39.9 percent while the least desired was housing at 4.5 percent.

Figure 16.5: Proportion of Households by Desired Project/Facility to be Improved, Rural, Zambia, 2015.

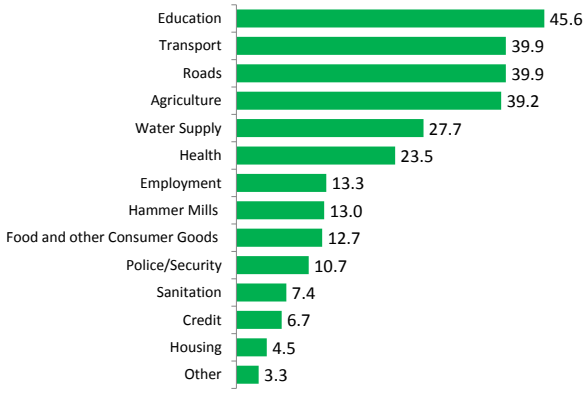


Figure 16.6 shows proportion of households by desired project/facility to be improved in urban. The results show that most desired project/facility to be improved were roads and transport at 40.9 percent while the least desired was hammer mill at 4.4 percent.

Figure 16.6: Proportion of Households by Desired Project/Facility to be Improved, Urban, Zambia, 2015.

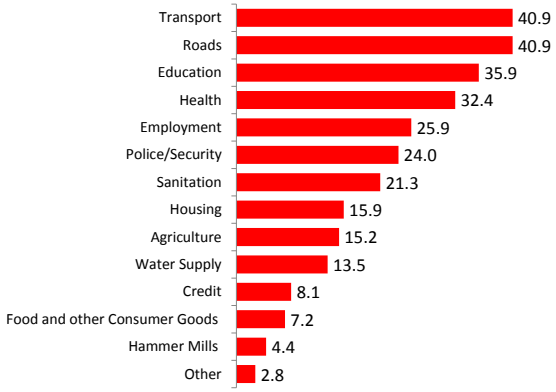
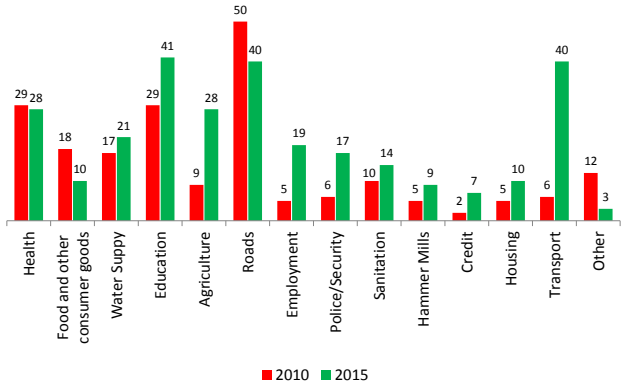


Figure 16.7 shows changes in the proportion of households choosing facilities to be improved by project type. The results show that the proportion of households indicating that roads should be improved was relatively higher for both 2010 and 2015 at 50 and 40 percent, respectively. The results further show that there was a drastic increase in the proportion of households that desired an improvement in transport facilities from 6 percent in 2010 to 40 percent in 2015. The proportion of households that desired food and other consumer goods to be improved decreased from 18 percent in 2010 to 10 percent in 2015. The proportion of households that desired improvements in employment opportunities increased from 5 percent in 2010 to 19 percent in 2015.

Figure 16.7 Proportion Distribution of Households by Desired Project/Facility to be Improved, Zambia 2010 and 2015.



16.3 Project or Changes that have taken place in the Community

Information was collected on projects that had taken place 12 months prior to the survey. Table 16.3 shows the percentage distribution of households indicating the extent to which projects/changes that had taken place in their community had improved their way of life. An indication of the desired project or change was then converted into percentage form and the percentage scored used to rank the response.

At national level, the 10 most desired projects/ changes in order of importance in percent form were: Building of a new tarred road (9.8), new school (8.1), rehabilitation or grading or resurfacing or extension of existing gravel road (7.5), rehabilitation or resurfacing of existing tarred road (6.9), extension of existing school (6.8), sinking of borehole (6.3), building a new health facility (6.2), rehabilitation of existing school (5.2), building of a new gravel road (5.0) and provision of a mobile network (4.6). The two least ranked projects/changes were agricultural extension service available or improved and agricultural inputs now more readily available with both have a score of 0.6.

In rural areas, the 10 most desired projects/changes, in order of importance, in percentage, were: Building a new school (10.1), sinking a borehole (8.1), extension of existing school (7.9), building a new health facility (5.9), rehabilitation or resurfacing of existing tarred road (5.8), rehabilitation of existing school (5.6), provision of mobile network (5.6), building a new gravel road (4.5), building a new tarred road (4.2) and radio reception improved (3.5). The two least ranked projects/changes were more employment opportunities available and credit facility now being provided both scoring 0.7.

In urban areas, the 10 most desired projects/changes, in order of importance, in percentage form, were: Building of a new tarred road (17.1), rehabilitation or resurfacing of existing tarred road (11.8), rehabilitation or grading or resurfacing or extension of existing gravel road (9.8), Extension of existing tarred road (7.2), building a new health facility (6.5), building a new gravel road (5.7), extension of existing school (5.4), building a new school (5.4), building a shopping mall or shopping centre or shops nearby (5.3) and piping of water (4.7). The two least ranked projects/changes were buyers of agricultural produce available or improved and agricultural inputs now more readily available both scoring 0.3.

Table 16.3: Percentage of Households Indicating that Projects/Changes had taken Place in their Community by Residence, Zambia, 2015.

No	Projects/Changes	Residence					
		Rural		Urban		All Zambia	
		Count	Percent	Count	Percent	Count	Percent
1	Provision of mobile phone network	95,473	5.6	41,949	3.2	137,423	4.6
2	Radio reception provided	51,004	3.0	27,399	2.1	78,403	2.6
3	Television reception provided	26,608	1.5	27,213	2.1	53,820	1.8
4	Radio Reception improved	60,018	3.5	35,107	2.7	95,125	3.2
5	Provision of hammer mill/s	51,394	3.0	13,775	1.1	65,170	2.2
6	Transport services provided or improved	34,242	2.0	48,141	3.7	82,383	2.7
7	Television reception improved	24,842	1.4	33,304	2.6	58,146	1.9
8	Extension of existing school	135,895	7.9	70,325	5.4	206,220	6.8
9	Police services now available or improved	24,618	1.4	50,611	3.9	75,230	2.5
10	Rehabilitation of existing school	96,895	5.6	59,869	4.6	156,764	5.2
11	Buyers of agricultural produce available or improved	21,708	1.3	3,880	0.3	25,587	0.8
12	Agricultural inputs provided on a subsidized basis	30,280	1.8	5,764	0.4	36,044	1.2
13	Building of new school	173,092	10.1	70,313	5.4	243,404	8.1
14	Rehabilitation or grading or resurfacing or extension of existing gravel road	99,239	5.8	126,505	9.8	225,743	7.5
15	Veterinary services now provided or improved	21,609	1.3	4,787	0.4	26,396	0.9
16	Agricultural extension service available or improved	14,703	0.9	3,886	0.3	18,589	0.6
17	Rehabilitation of existing health facility	48,210	2.8	56,375	4.3	104,585	3.5
18	Building of new health facility (Hospital, Clinic, Health centre or post, etc.)	101,403	5.9	84,852	6.5	186,256	6.2
19	Sinking of borehole	139,612	8.1	49,766	3.8	189,379	6.3
20	Agricultural inputs now more readily available	14,194	0.8	3,875	0.3	18,068	0.6
21	Extension of existing health facility	40,752	2.4	49,500	3.8	90,252	3.0
22	Water supply rehabilitated or improved	15,926	0.9	60,439	4.7	76,365	2.5
23	Building of a shopping mall or shopping centre or shops nearby	17,737	1.0	69,274	5.3	87,011	2.9
24	Agricultural inputs provided on credit	20,231	1.2	5,181	0.4	25,412	0.8
25	Piping of water	14,762	0.9	61,583	4.7	76,345	2.5
26	Digging of well	25,431	1.5	7,683	0.6	33,114	1.1
27	Sanitation provided or improved	14,569	0.8	21,398	1.6	35,967	1.2
28	Rehabilitation or resurfacing of existing tarred road	54,854	3.2	153,066	11.8	207,920	6.9
29	Building of new gravel road	77,726	4.5	73,642	5.7	151,368	5.0
30	Credit facility now being provided	11,331	0.7	9,611	0.7	20,942	0.7
31	Some other construction development nearby (e.g. a housing estate, new hotel etc.)	16,348	1.0	39,726	3.1	56,073	1.9
32	Building of new tarred road	72,581	4.2	222,205	17.1	294,786	9.8
33	More employment opportunities available	12,139	0.7	11,349	0.9	23,487	0.8
34	Extension of existing tarred road	28,421	1.7	93,536	7.2	121,957	4.0
	Total	**1,718,060**	**57.0**	**1,296,905**	**43.0**	**3,014,965**	**100.0**

16.4. Extent to which Major Projects/Changes have Improved the way Households Live in Residence.

Selected projects were used to show the extent to which such projects impacted on the livelihoods of rural and urban households.

Table 16.4 shows the percentage distribution of households indicating the extent to which selected projects/changes that had taken place in the communities had improved their way of life in urban areas. Using the computed scores, 'building of new tarred roads' had the highest score at 321, followed by 'building of new school' at 311. 'More employment opportunities available' had the least score of 213.

Table 16.4: Percentage Distribution of Households Indicating the Extent to which Selected Projects/Changes that have taken Place in the Communities have Improved their Way of Life in Urban Areas, Zambia, 2015.

Project/Change	Extremely	Moderately	Little	No effect	Not Applicable	Total	Score
Building of new tarred road	46.8	32.9	14.6	5.1	0.5	100	321
Building of new school	39.0	40.3	13.6	6.6	0.4	100	311
Rehabilitation or resurfacing of existing tarred road	37.9	35.0	20.3	6.1	0.7	100	303
Rehabilitation of existing health facility	24.8	55.7	17.0	2.4	0.0	100	303
Extension of existing tarred road	40.6	31.4	19.3	5.8	3.0	100	301
Radio Reception improved	26.1	49.8	21.5	2.7	0.0	100	299
Building of new health facility (Hospital, Clinic, Health centre or post, etc.)	40.9	33.9	13.2	6.8	5.2	100	299
Provision of mobile phone network	28.4	44.1	22.0	4.9	0.7	100	295
Building of new gravel road	29.2	38.1	29.3	3.5	0.0	100	293
Radio reception provided	25.9	44.5	25.5	4.1	0.0	100	292
Extension of existing health facility	25.2	43.9	23.7	7.1	0.0	100	287
Transport services provided or improved	28.7	38.6	23.6	7.7	1.4	100	285
Rehabilitation or grading or resurfacing or extension of existing gravel road	17.1	49.8	26.7	5.9	0.5	100	277
Television reception improved	8.2	44.6	27.1	18.9	1.2	100	240
Building of a shopping mall or shopping centre or shops nearby	10.9	43.4	23.7	9.6	12.3	100	231
More employment opportunities available	12.7	27.0	25.0	31.2	4.1	100	213

Table 16.5 shows the percentage distribution of households indicating the extent to which selected projects/changes that had taken place in the communities and had improved their way of life in rural areas.

The results show that 'provision of mobile phone network' had the highest score at 340. This was followed by 'provision of transport services' at 333. 'More employment opportunities available; was the least at 238.

The results further show that television reception, building of shopping mall and employment opportunities did not have much impact on improving people's livelihoods in the rural areas.

Table 16.5: Percentage Distribution of Households Indicating the Extent to which Selected Projects/Changes that have taken place in the Communities have Improved their Way of Life in Rural Areas, Zambia, 2015.

Project/Change	Extremely	Moderately	Little	No Effect	Not Applicable	Total	Score
Provision of mobile phone network	48.6	44.3	5.6	1.5	0.0	100	340
Transport services provided or improved	44.0	48.9	4.5	1.0	1.5	100	333
Building of new health facility (Hospital, Clinic, Health centre or post, etc.)	47.4	36.1	9.5	6.8	0.3	100	323
Extension of existing tarred road	38.6	48.8	9.2	3.4	0.0	100	323
Building of new tarred road	43.0	40.2	10.5	6.2	0.1	100	320
Rehabilitation or resurfacing of existing tarred road	36.5	46.4	14.6	2.4	0.0	100	317
Building of a shopping mall or shopping centre or shops nearby	41.0	38.5	16.6	3.4	0.5	100	316
Radio Reception improved	28.4	56.5	14.6	0.5	0.0	100	313
Extension of existing health facility	32.4	54.5	7.6	4.6	1.0	100	313
Building of new school	38.4	43.2	12.2	4.3	1.8	100	312
Radio reception provided	35.1	47.1	12.2	5.6	0.0	100	312
Rehabilitation of existing health facility	25.8	62.6	7.7	3.5	0.3	100	310
Television reception improved	16.9	60.0	15.6	7.5	0.0	100	286
Building of new gravel road	25.4	42.9	23.0	8.7	0.0	100	285
Rehabilitation or grading or resurfacing or Extension of existing gravel road	12.7	47.8	31.3	8.1	0.0	100	265
More employment opportunities available	18.4	30.7	21.0	29.9	0.0	100	238

APPENDICES

POVERTY METHODOLOGICAL NOTE

The methodology for consumption-poverty estimation in Zambia in 2015[1]

Republic of Zambia
CENTRAL STATISTICAL OFFICE

WORLD BANK GROUP
Poverty & Equity

[1] The Central Statistical Office of Zambia and the World Bank are grateful for the financial support from the Department for International Development (DfID) in the final stage of the production of this work.

Introduction

The Central Statistical Office of Zambia (CSO) and its partners have been collecting nationally representative household survey data since 1996 through the Living Conditions Monitoring Survey (LCMS). The main purpose of these surveys is to assess the living standards of the population (Zambia's LCMS is the primary source for estimations of poverty within the country), measure progress and results of development, and provide information on indicators contained in the National Development Plan.

Between April and May 2015, the CSO carried out the 2015 Living Conditions Monitoring Survey (2015 LCMS). The survey was administered to around 12,250 households that account for almost 63,000 individuals. The 2015 LCMS uses the 2010 Census of Population and Housing as the sampling frame and is representative at the national level, by urban and rural areas, and by province.

The collection of survey data is constantly evolving in all phases (preparation and planning, training, field work, data entry, data cleaning and data analysis). Given that the CSO wants to keep itself up to date with such progress, the 2015 LCMS was the first large-scale household survey that implemented data collection and data entry through the Computer Assisted Personal Interviewing (CAPI) platform, instead of using the paper-based modality. The World Bank's DEC Surveys and Methods team provided technical support throughout the process.

Poverty analysis requires three main elements. The first component is a welfare indicator to rank all population from the person with the lowest level of welfare to the person with the highest level of welfare. The second element is an appropriate poverty line to be compared against the welfare indicator in order to classify individuals as poor or non-poor. Last, a set of measures that combine the individual welfare indicators and the poverty line into an aggregate poverty figure. The methodology to estimate poverty in 2015 improves (and therefore diverts from) that employed in the official poverty estimations of the 2010 Living Conditions Monitoring Survey.

This note explains all the steps involved in the construction of the consumption aggregate, the derivation of the poverty line and the estimation of the poverty measures. Section 1 explains the construction of the consumption aggregate and comprises three subsections. Subsection 1.1 describes the estimation of the nominal consumption of the household. Subsection 1.2 discusses the adjustment for cost of living differences across provinces. Subsection 1.3 refers to the adjustment for differences in demographic composition and size across households. Section 2 clarifies the derivation of the poverty line. Section 3 examines the poverty measures used in this report. Section 4 presents the poverty results.

1 The welfare indicator

Research on poverty over the last years has reached some consensus on using economic measures of living standards, hence these are regularly employed on poverty analysis. Although they do not cover all aspects of human welfare, they do capture a central component of any assessment of living conditions. Following common practice in Zambia, consumption is chosen as the preferred welfare indicator because it is likely to be a more reliable and accurate measure of long-term living standards than income.[2]

1.1 The construction of the consumption aggregate

Creating the consumption aggregate is guided by theoretical and practical considerations. First, it must be as comprehensive as possible given the available information. Omitting some components assumes that they do not contribute to people's welfare or that they do not affect the ranking of individuals. Second, market and non-market transactions are to be included, which means that purchases are not the sole component of consumption. Third, expenditure is not consumption. For perishable goods, mostly food, it is usual to assume that all purchases are consumed. But for other goods and services, such as housing or durable goods, corrections have to be made. Fourth, a common reference period should be chosen. Each consumption module in the survey has a different reference period, for instance, for food is the last two or four weeks, for housing is the last four weeks and for education is the last twelve months. All components are converted into monthly figures, thus consumption will be reported per month. Last, consistency checks are applied item by item in order to avoid including extreme amounts that may distort comparisons.[3] Expenses classified as outliers are replaced by median values at the cluster/stratum level. In case not enough observations at the cluster/stratum level are available, median values at the provincial/stratum level or by stratum at the national level are used.

The consumption aggregate comprises four main components: food, nonfood, durable goods and housing. A brief discussion on how each component is calculated is outlined below.

1.1.1 Food component

The food component can be constructed by adding up the consumption of all food items in the household, previously normalized to a uniform reference period. The 2015 LCMS records information on food consumption at the household level using the last two weeks and the last four weeks as the recall periods in the household expenditure module (section 11A). Consumption of maize grain (shelled and unshelled), breakfast mealie meal, roller meal, hammer mealie meal, pounded maize meal, the cost of milling, salt, spices and cooking oil is captured over the last four weeks, whereas the rest of food items are captured over the last two weeks. The survey collects data on 129 items, which are organized in thirteen categories: cereals; roots and tubers; pulses and legumes; vegetables; fruits; fish; meat and poultry; dairy products; fats; sugar and sweets; other food; food consumed outside the dwelling; and non-alcoholic beverages.

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[2] See Deaton and Zaidi (2002) and Haughton and Khandker (2009).

[3] Potential outliers are identified in two ways. The first procedure draws the density function of expenses in order to detect gross outliers. The second method relies on examining both the frequency distribution of expenses and a few summary statistics. If the flagged expenses were not consistent with the demographic composition of the household and with the socio-economic characteristics of the household members, then those cases would be considered outliers.

All possible sources of consumption are taken into account, which means that the food component comprises consumption not only from purchases in the market or from meals eaten away from home, but also food that was own produced or received as a gift. Non-purchased food items are valued using the market-value estimate provided by households.

1.1.2 Non-food component

Data on an extensive range of non-food items are available: alcohol and tobacco, fuel such as charcoal and firewood, health, transport, communication, recreation, education, furnishings, personal care, etc. Non-food expenses are reported in household amenities and household conditions (section 8), household expenditure (section 11A) and remittances (section 11B). Each non-food component is associated with a particular reference period that reflects the frequency of that purchase or consumption. Expenses on education, health, clothing, financial services and remittances are captured over the last year, whereas the rest of non-food expenses refer to the last four weeks.

An adjustment is implemented to capture the welfare derived by households that are connected to the water network or to the power grid, but do not report any expenses on these public utilities. Water expenses are taken from sections 8 and 11A. If the main source of drinking water of a household were an own tap or a public tap, water expenses come from section 8; otherwise, they come from section 11A. However, imputations are done in the case of households that do not report expenses on water and whose main source of drinking water is their own tap or a public tap. Each case is treated separately. One regression uses water expenses of households having an own tap as the dependant variable and the other regression uses water expenses of households relying on a public tap. The covariates for both regressions are the same and include household size, the type of toilet facility, ownership of assets associated with water consumption (washing machines and dishwashers), the rent of the dwelling (actual or imputed) and the location of the household (urban or rural area, province and stratum). The predicted water expenses from these regressions are used to impute water expenses of the 167 households that have their own tap but do not report water expenses, and of the 182 households that rely on a public tap but do not report these expenses. Appendix A shows the output of these regressions.

Electricity expenses are taken from sections 8 and 11A too. If the household were connected to the power grid, electricity expenses come from section 8; otherwise, expenses come from section 11A. However, imputations are done in the case of households that do not report expenses on electricity but are connected to the grid. The regression uses electricity expenses from households connected to the power grid as the dependent variable. The covariates include household size, the number of rooms, ownership of assets associated with electricity consumption (television sets, computers, refrigerators, air conditioners, etc.), the rent of the dwelling (actual or imputed) and the location of the household (urban or rural area, province and stratum). The predicted electricity expenses are used to impute electricity expenses of the 138 households connected to the grid but not reporting these expenses. Appendix B shows the output of this regression.

Some non-food items are excluded from the consumption aggregate for different reasons. Loan payments are financial transactions and are not consumption. Remittances to other households and contributions to churches or mosques are expenditures but not consumption. Expenses on funerals, gifts and dowries are consumption, but given their sporadic nature and the fact that the reported amounts are typically rather large, they are left out to avoid overestimating the true level of welfare of the household. Expenditures related to

hospitalisations and insurance are excluded too. Overall, the survey gathers information on 113 non-food items: 104 are included and 9 are excluded.

1.1.3 Durable goods

Ownership of durable goods could be an important component of the welfare of the population. Since these goods last for many years, the expenditure on purchases is not the proper indicator to consider. The right measure to estimate, for consumption purposes, is the stream of services that households derive from all durable goods in their possession over the relevant reference period. This flow of utility is unobservable but it can be assumed to be proportional to the value of the good.

The estimation of this component of consumption relies on information on the number of durable goods owned, their age and their current reselling value. The survey collects information on household ownership of 63 durable goods, tools and machines. Overall, 33 production durable goods, that is, those used for income-generating activities, are excluded.

The first step is to run a regression of the current value of the durable good with the age of the durable good as the single independent variable. If the age coefficient is negative, which would mean that the reselling value decreases over time, then the absolute value of the ratio between the coefficient of age and the constant will represent the depreciation rate per year. The stream of services per durable good per household is calculated as follows:

$$SV_{ih} = \frac{CV_{ih}}{(1-\delta_i)} \times \delta_i \times Q_{ih}$$

where *i* represents the type of durable good that household *h* owns, *CV* is the current reselling value, δ is the depreciation rate and *Q* is the number of durable goods owned by the household. The stream of services over the last 12 months per durable good is obtained by multiplying the value of the durable good one year ago (the first term of the right-hand side) by the depreciation rate by the number of units the household owns of each durable good. Durable goods with positive age coefficients (the older the durable good is, the higher the reselling value is) or with extremely low depreciation rates are excluded. Appendix C shows the durable goods along with their depreciation rates.

1.1.4 Housing

Housing conditions are an essential part of people's living standards. As in the case of durable goods, the objective is to try measuring the flow of services received by the household from occupying its own dwelling. When a household rents its dwelling, and provided rental markets function well, the value of housing would be the actual rent paid. If the household does not rent its dwelling, the survey asks how much the household could receive if it were to rent the dwelling out. Data on self-reported imputed rents can be used to estimate the value of housing, although they may not always be reliable. Alternatively, if enough people live in rented dwellings, that information could be used to impute rents for those that live in their own dwellings.

A hedonic rental regression is estimated using actual rents as the dependent variable. The rental values are taken from household amenities and household conditions (section 8) rather than from household expenditure (section 11A). The set of independent variables comprises the main material of the walls, the main material of the roof, the main material of the floor,

the number of rooms, the type of dwelling, the main source of drinking water, the type of toilet facility, access to electricity and the location of the household (urban or rural area, province and stratum). The predicted rent from this regression is used to value the housing component of the 775 households (6.3% of the sample) that reported imputed rents considered outliers[4] or that did not report any rent at all. Appendix D shows the output of the rental model.

1.2 Adjustment for cost-of-living differences

The nominal consumption of the household must be adjusted for temporal and spatial cost-of-living differences. Temporal differences are associated with the duration of the fieldwork (ZMW1000 in April may not have the same purchasing power as in October), whereas spatial differences are associated with the location of the household interviewed in the survey (ZMW1000 in Lusaka may not have the same purchasing power as in Northern province).

The adjustment for temporal cost-of-living differences relies on the monthly consumer price index (CPI) by province. The fieldwork took place over April and May 2015, hence price indices are constructed for each province with that period as the base. Nominal consumption is adjusted according to the month in which households were interviewed. Consumption is thus temporally-adjusted to April/May prices of each province (see Table 1).

Table 1: Temporal price indices by province

	April	May
Central	99.44	100.56
Copperbelt	99.79	100.21
Eastern	99.74	100.26
Luapula	99.63	100.37
Lusaka	99.65	100.35
Northern	99.89	100.11
North Western	99.37	100.63
Southern	99.64	100.36
Western	99.88	100.12

Source: CSO/World Bank estimations.

The adjustment for spatial cost-of-living differences is implemented using price indices constructed by province using data from the CPI rather than from the survey. The LCMS has advantages over the CPI in terms of covering rural areas and being able to provide more updated weights (consumption shares) for the spatial price index, but it cannot provide reliable information on unit values (the proxy for prices). In principle, the survey can only be used as a source of food unit values, but it cannot supply non-food unit values. The LCMS unfortunately does not allow the calculation of reliable food unit values because households can report quantities consumed in several unit codes (ranging from standard units as kilograms and litres to non-standard units as heaps, pails, plates and cups), but conversion factors to transform quantities reported in non-standard units into kilograms and litres do not

[4] The identification of potential outliers relied on the examination of reported rents by broad type of dwelling (hut, house and other) separately for urban and rural areas in each of the ten provinces. If the characteristics and location of these dwellings were not consistent with the reported rents, then these households would be considered outliers. Overall, rents of 199 households were classified as outliers.

exist. By contrast, the main advantage of using the CPI over the survey is the possibility of including nonfood items.

A Laspeyres spatial price index by province is estimated based on a selection of food and non-food items present in all nine provinces: 229 goods and services. The food component contains 82 products and represents 59% of this bundle, whereas the non-food component contains 147 products and represents 41% of this bundle. The overall bundle for the spatial price index accounts for 70% of the national CPI bundle. The weights of the items in the spatial price index correspond to the shares of these items at the national level rescaled to add up to 100.[5]

The base for the spatial price index is All-Zambia during the entire period of the fieldwork: April and May 2015. The average prices by province over the two months are compared with the average national price. Using the entire fieldwork period for both the base and the comparison periods is likely to provide a more robust regional ranking of spatial cost-of-living differences than when using a particular month. Table 2 shows the spatial price indices by province. Lusaka is the most expensive province, North Western ranks second and Copperbelt third. Northern is the cheapest province. Once both temporal and spatial price adjustments are applied, nominal consumption becomes real consumption at average national prices of April/May 2015.

Table 2: Laspeyres spatial price indices by province

	2015
Zambia	100
Central	97
Copperbelt	101
Eastern	94
Luapula	95
Lusaka	109
Northern	91
North Western	102
Southern	97
Western	94

Source: CSO/World Bank estimations.

1.3 Adjustment for household composition

The final step in constructing the welfare indicator involves going from a measure of standard of living defined at the household level to another at the individual level because the ultimate objective is to make comparisons across individuals and not across households. Equivalence scales are the factors that convert real household consumption into real individual

[5] An alternative estimation of the spatial price index using consumption shares from the 2015 LCMS as weights for the broad consumption groups showed only minor differences. The selected reference group to be representative of the poor was the bottom 50% of the population in terms of consumption per adult equivalent. For instance, food accounts for 59% of the spatial basket using CPI weights and 60% using household survey weights.

consumption by correcting for differences in the demographic composition and size of households. This analysis keeps the adult-equivalence (AE) scale used in Zambia since 1991.

Table 3: Adult-equivalent scale

Age (years)	Factor
0-3	0.36
4-6	0.62
7-9	0.76
10-12	0.78
13 or more	1.00

Source: CSO (2012).

2 Poverty lines

The poverty line can be defined as the monetary cost to a given person, at a given place and time, of a reference level of welfare[6]. If a person does not attain that minimum level of standard of living, he or she will be considered poor. The poverty line will be absolute because it fixes this standard of living in the country, hence guaranteeing that comparisons across individuals will be consistent, that is, two persons with the same welfare level will be treated the same way regardless of the location where they live. The reference standard of living is anchored to nutritional attainments, in this particular case that the person obtains the necessary energy requirements to have a healthy and moderately active life.

The total poverty line comprises two principal components: food and non-food. The food poverty line represents the cost of a food bundle that provides 12,450 kcal per day, which are the necessary energy requirements for a family of six people or 4.52 adult equivalents. The National Food and Nutrition Commission and the Price and Income Commission constructed the food basket in 1991. The current cost of the food basket is obtained by updating the prices of each food item in the basket using median national CPI prices over the fieldwork period (see Table 4).

The non-food poverty line represents an allowance for basic non-food needs. The non-food poverty line is estimated non-parametrically as the average non-food consumption of the population whose total consumption is close to the food poverty line. The procedure starts by estimating the average non-food consumption of the population whose total consumption lie within plus and minus 1% of the food poverty line. The same exercise is then repeated for those lying plus and minus 2%, 3%, and up to 10%. Second, the final non-food poverty line is the average of those ten mean non-food consumption figures. Last, the total poverty line is the sum of the food poverty line and the non-food poverty line.[7] Table 5 shows the poverty lines used in this assessment.

[6] Ravallion (1998) and Ravallion (1996).

[7] This poverty line is known as the lower poverty line. The upper poverty line uses the same food poverty line but estimates the nonfood allowance as the average nonfood consumption of the population whose food consumption is close to the food poverty line. Notice that if the analysis relies on food shares, the estimation is different. Say FZ is the food poverty line, FSu is the food share from the upper reference group and FSl is the food share from the lower reference group. The upper poverty line is estimated as FZ/FSu, whereas the lower poverty line as FZ*(2-FSl). See Ravallion (1998).

Table 4: Food basket for a family of six

Food item	Unit	Quantity	Unit price	Cost
Cooking oil local	2.5l	1	38	38
Dried beans	1kg	2	13	27
Dried bream	1kg	1	68	68
Dried kapenta	1kg	2	104	207
Fresh milk	500ml	4	5	20
Onion	1kg	4	10	40
Shelled groundnuts	1kg	3	13	39
Table salt	1kg	1	5	5
Tomatoes	1kg	4	5	21
White roller	25kg	3.6	54	194
Vegetables	1kg	7.5	4	29
Total per family (six people or 4.52 AE)				686
Total per AE				152

Source: CSO/World Bank estimations.

Table 5: Poverty lines per adult equivalent per month

	2015
Total	214
Food	152
Nonfood	62

Note: At average national prices of April/May 2015.
Source: CSO/World Bank estimations.

3 Poverty measures

The literature on poverty measurement is extensive, but the focus will be on the class of poverty measures proposed by Foster, Greer and Thorbecke. This family of measures can be summarized by the following equation:

$$P_\alpha = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{z-y_i}{z}\right)^\alpha$$

where α is some non-negative parameter, z is the poverty line, y denotes consumption, i represents individuals, n is the total number of individuals in the population, and q is the number of individuals with consumption below the poverty line.

The headcount index (α=0) gives the share of the poor in the total population, i.e., it measures the percentage of population whose consumption is below the poverty line. This is the most widely used poverty measure mainly because it is very simple to understand and easy to interpret. However, it has some limitations. It does not take into account how close or far the consumption levels of the poor are with respect to the poverty line nor the distribution of consumption among the poor. The poverty gap (α=1) is the average consumption shortfall of the population relative to the poverty line. Since the greater the shortfall, the higher the gap, this measure overcomes the first limitation of the headcount. Finally, the severity of poverty (α=2) is sensitive to the distribution of consumption among the poor because a transfer from a poor person to somebody less poor may leave unaffected the headcount or the poverty gap but will increase this measure. The larger the poverty gap is, the higher the weight it carries.

These measures satisfy some convenient properties. First, they are able to combine individual indicators of welfare into aggregate measures of poverty. Second, they are additive in the sense that the aggregate poverty level is equal to the population-weighted sum of the poverty levels of all subgroups of the population. Third, the poverty gap and the severity of poverty satisfy the monotonicity axiom, which states that even if the number of the poor is the same, but there is a welfare reduction in a poor household, the measure of poverty should increase. And fourth, the severity of poverty complies with the transfer axiom: it is not only the average welfare of the poor that influences the level of poverty, but also its distribution. In particular, if there is a transfer from one poor household to a richer household, the degree of poverty should increase.

4 Poverty results

The incidence of poverty stands at 54.4%. The proportion of the population that is poor in rural areas is more than triple that in cities and towns (see Table 6). Across provinces, Lusaka has the lowest incidence of poverty and Copperbelt has the second lowest. Northern, Luapula and Western are the poorest provinces having around 8 out of 10 people considered poor.

The poverty gap, which is the average consumption shortfall of the population relative to the poverty line, and the squared poverty gap, which in addition takes into account the distribution of consumption among the poor, present the same patterns observed with the poverty incidence. The provincial ranking is almost identical for the three indices. Appendix E shows these estimates with their standard errors and confidence intervals.

Table 6: Poverty indices, 2015

	Overall poverty			Extreme poverty		
	Incidence	Depth	Severity	Incidence	Depth	Severity
Zambia	54.4	26.4	16.0	40.8	17.5	9.8
Rural	76.6	39.2	24.3	60.8	26.8	15.1
Urban	23.4	8.5	4.5	12.8	4.6	2.3
Central	56.2	25.5	14.6	39.8	15.8	8.2
Copperbelt	30.8	11.8	6.1	18.2	6.3	3.1
Eastern	70.0	34.7	21.1	55.9	23.0	12.8
Luapula	81.1	45.4	29.5	67.7	32.7	19.3
Lusaka	20.2	7.1	3.7	11.0	3.9	1.9
Muchinga	69.3	35.9	22.3	54.4	24.8	13.8
Northern	79.7	45.2	30.0	67.6	33.3	20.2
North Western	66.4	30.2	17.5	48.4	19.3	10.0
Southern	57.6	24.3	13.6	38.1	14.6	7.6
Western	82.2	47.4	31.2	73.0	34.9	20.5

Source: CSO/World Bank estimations.

The incidence of extreme poverty, that is, those whose total consumption is less than the food poverty line, stands at 40.8%, which means that most of the poor are extreme poor. Three out of five rural dwellers are extreme poor, but this proportion drops to around one in eight among those living in urban areas. The dispersion in the incidence of extreme poverty across provinces is remarkable: only one in nine people in Lusaka compared with almost three out of four people in Western. As it was the case for the indices of overall poverty, the provincial rankings of the three indices of extreme poverty are almost identical. Appendix E shows the standard errors and confidence intervals of these estimates too.

Appendix A

Model to impute water expenses, 2015

	Own tap	Public tap
Toilet		
Own flush toilet inside the household	0.147 **	0.757 ***
Own flush toilet outside the household	0.061	0.527 **
Own pit latrine with slab	0.002	0.146
Communal pit latrine with slab	-0.097	0.144
Neighbour's pit latrine with slab	-0.431	0.120
Communal pit latrine without slab	0.103	-0.025
Pit latrine without slab	-0.279 **	-0.112
Bucket/ other container	0.340	-
None	-	-0.168
Other	0.347	0.407
Household size	0.060 ***	-0.058
Household size squared	-0.002 *	0.004
Rent (ln)	0.220 ***	0.160 ***
Washing machine	0.189 **	-
Dishwasher	-0.008	-0.205
Urban	-0.157	0.633 ***
Province		
Central	-0.205 ***	-0.318 ***
Copperbelt	-0.203 ***	0.416 **
Eastern	-0.385 ***	0.215
Luapula	-0.242 ***	-0.700
Muchinga	-0.154 **	0.154
Northern	-0.287 ***	0.389 **
North Western	-0.187 ***	0.211
Southern	-0.194 ***	-0.383 ***
Western	-0.070	0.543 ***
Stratum		
Medium scale	0.025	0.630
Large scale	0.573	-
Non-agricultural	0.240	0.569 **
Low cost	-	0.122
Medium cost	0.055	0.520 ***
High cost	0.261 ***	-
Constant	2.802 ***	1.304 ***
N	1981	407
r2	0.27	0.32
r2 adjusted	0.26	0.28
F	25.48	6.74

Note: *, ** and *** indicate significance at 10, 5 and 1 percent, respectively.
The dependent variable is the logarithm of water expenses. The reference dwelling has its own pit latrine without a slab as the toilet facility, owns neither a washing machine nor a dishwasher, and is located in a low scale rural area in the province of Lusaka.
Source: CSO/World Bank estimations.

Appendix B

Model to impute electricity expenses, 2015

	Coef.	Std. Err.	t	P>|t|	[95% conf.	interval]
Household size	0.033	0.011	3.090	0.002	0.012	0.055
Household size squared	-0.001	0.001	-1.640	0.100	-0.003	0.000
Number of rooms	0.118	0.019	6.240	0.000	0.081	0.155
Number of rooms squared	-0.009	0.002	-5.460	0.000	-0.012	-0.005
Rent (ln)	0.241	0.017	14.560	0.000	0.209	0.274
Electrical appliances						
Television	0.025	0.034	0.730	0.465	-0.042	0.091
Home theatre	0.015	0.019	0.820	0.414	-0.021	0.051
Computer	0.092	0.022	4.280	0.000	0.050	0.134
Stove	0.187	0.024	7.890	0.000	0.141	0.234
Air conditionaer	0.232	0.065	3.560	0.000	0.104	0.359
Iron	0.066	0.025	2.590	0.010	0.016	0.116
Refrigerator	0.057	0.026	2.170	0.030	0.006	0.108
Rural	0.555	0.156	3.560	0.000	0.249	0.861
Province						
Central	-0.074	0.040	-1.830	0.068	-0.153	0.005
Copperbelt	-0.043	0.030	-1.420	0.156	-0.103	0.016
Eastern	-0.218	0.040	-5.490	0.000	-0.296	-0.140
Luapula	-0.231	0.041	-5.630	0.000	-0.311	-0.150
Muchinga	-0.081	0.040	-2.000	0.045	-0.160	-0.002
Northern	-0.245	0.041	-5.970	0.000	-0.326	-0.165
North Western	-0.087	0.037	-2.370	0.018	-0.159	-0.015
Southern	-0.136	0.036	-3.810	0.000	-0.205	-0.066
Western	-0.070	0.043	-1.610	0.107	-0.154	0.015
Stratum						
Low scale	-0.581	0.165	-3.510	0.000	-0.905	-0.257
Medium scale	-0.257	0.174	-1.480	0.139	-0.598	0.084
Non-agricultural	-0.485	0.178	-2.720	0.007	-0.835	-0.135
Low cost	-0.025	0.022	-1.120	0.262	-0.069	0.019
High cost	0.096	0.023	4.250	0.000	0.052	0.141
Constant	2.553	0.105	24.350	0.000	2.347	2.758

Number of obs =	2873	R-squared =	0.43
F(27, 2845) =	78.44	Adj R-squared =	0.42
Prob > F =	0.00	Root MSE =	0.46

Note: The dependent variable is the logarithm of electricity expenses. The reference household does not ov any of the seven electrical appliances included in the model and is located in a medium cost urban area in th province of Lusaka.

Source: CSO/World Bank estimations.

Appendix C

Rental model, 2015

	Coef.	Std. Err.	t	P>|t|	[95% conf.	interval]
Dwelling						
Traditional hut	0.005	0.092	0.050	0.957	-0.176	0.186
Improved traditional hut	-0.149	0.048	-3.120	0.002	-0.242	-0.055
Flat/apartment/multi-unit	0.048	0.030	1.570	0.117	-0.012	0.107
Semi-detached house	0.021	0.038	0.550	0.585	-0.053	0.095
Other	0.030	0.051	0.600	0.550	-0.069	0.130
Walls						
Burnt bricks	-0.009	0.033	-0.270	0.787	-0.073	0.055
Mud bricks	-0.002	0.051	-0.040	0.970	-0.101	0.097
Compressed mud	0.020	0.122	0.170	0.869	-0.219	0.259
Compressed cement/bricks	0.006	0.040	0.150	0.880	-0.072	0.084
Concrete blocks/slab	0.091	0.034	2.710	0.007	0.025	0.158
Stone	-0.191	0.383	-0.500	0.617	-0.943	0.560
Iron sheets	-0.333	0.274	-1.210	0.225	-0.870	0.205
Asbestos/hardboard/wood	-0.587	0.183	-3.200	0.001	-0.946	-0.227
Pole and dagga/mud	0.067	0.172	0.390	0.698	-0.270	0.404
Grass	0.127	0.279	0.460	0.648	-0.420	0.675
Other	0.168	0.139	1.210	0.227	-0.104	0.440
Roof						
Thatch/palm leaf	-0.772	0.083	-9.310	0.000	-0.935	-0.610
Rustic mat	-0.516	0.548	-0.940	0.347	-1.591	0.559
Wood planks	-0.707	0.538	-1.310	0.189	-1.763	0.348
Cardboard	0.459	0.314	1.460	0.144	-0.157	1.074
Wood	0.445	0.539	0.830	0.409	-0.611	1.502
Asbestos	0.006	0.028	0.220	0.827	-0.049	0.061
Ceramic tiles	0.260	0.116	2.240	0.025	0.032	0.488
Cement	0.433	0.193	2.250	0.025	0.055	0.810
Roofing shingles	0.315	0.210	1.500	0.134	-0.098	0.727
Other	-0.652	0.275	-2.370	0.018	-1.190	-0.113
Floor						
Concrete	-0.032	0.027	-1.170	0.241	-0.085	0.021
Brick	-0.584	0.242	-2.410	0.016	-1.059	-0.109
Tiles	0.336	0.042	8.080	0.000	0.255	0.418
Mud	-0.379	0.057	-6.700	0.000	-0.490	-0.268
Marble, terrazzo	0.191	0.313	0.610	0.542	-0.423	0.805
Other	-0.076	0.314	-0.240	0.810	-0.692	0.541
Number of rooms	0.208	0.009	24.470	0.000	0.192	0.225
Drinking water						
Directly from river/lake/stream/dam	-0.195	0.114	-1.710	0.088	-0.419	0.029
Rainwater	-0.304	0.184	-1.650	0.098	-0.665	0.056
Unprotected well	-0.235	0.058	-4.040	0.000	-0.350	-0.121
Protected well	-0.230	0.046	-5.050	0.000	-0.319	-0.141
Borehole	-0.138	0.050	-2.780	0.005	-0.235	-0.041
Unprotected spring	-0.524	0.224	-2.340	0.019	-0.963	-0.086
Protected spring	-0.289	0.192	-1.510	0.132	-0.665	0.087
Public tap	-0.119	0.040	-2.960	0.003	-0.197	-0.040
Other tap	-0.095	0.045	-2.090	0.037	-0.184	-0.006
Water kiosk	-0.201	0.062	-3.220	0.001	-0.323	-0.079
Bought from other vendor	0.348	0.381	0.910	0.361	-0.400	1.096
Bottled water	0.391	0.103	3.800	0.000	0.189	0.593
Other	-0.172	0.105	-1.630	0.103	-0.379	0.035

(continued)

Appendix C

Rental model, 2015... (continued)

	Coef.	Std. Err.	t	P>|t|	[95% conf.	interval]
Toilet						
Own flush toilet outside the household	-0.361	0.041	-8.710	0.000	-0.442	-0.280
Own pit latrine with slab	-0.394	0.038	-10.320	0.000	-0.469	-0.319
Communal pit latrine with slab	-0.524	0.049	-10.800	0.000	-0.620	-0.429
Neighbour's pit latrine with slab	-0.609	0.076	-8.020	0.000	-0.758	-0.460
Own pit latrine without slab	-0.460	0.048	-9.540	0.000	-0.554	-0.365
Communal pit latrine without slab	-0.557	0.061	-9.200	0.000	-0.675	-0.438
Pit latrine without slab	-0.501	0.056	-8.880	0.000	-0.612	-0.390
Aqua privy	-0.907	0.545	-1.660	0.096	-1.976	0.162
None	-0.607	0.198	-3.060	0.002	-0.995	-0.218
Other	-0.287	0.146	-1.970	0.049	-0.572	-0.001
No access to electricity	-0.668	0.034	-19.680	0.000	-0.734	-0.601
Rural areas	0.058	0.386	0.150	0.881	-0.699	0.815
Province						
Central	-0.605	0.046	-13.040	0.000	-0.696	-0.514
Copperbelt	-0.526	0.041	-12.710	0.000	-0.607	-0.445
Eastern	-0.601	0.051	-11.770	0.000	-0.702	-0.501
Luapula	-0.790	0.052	-15.300	0.000	-0.891	-0.689
Muchinga	-0.771	0.052	-14.910	0.000	-0.873	-0.670
Northern	-0.902	0.055	-16.450	0.000	-1.009	-0.794
North Western	-0.129	0.053	-2.460	0.014	-0.232	-0.026
Southern	-0.677	0.043	-15.790	0.000	-0.761	-0.593
Western	-0.561	0.059	-9.470	0.000	-0.677	-0.444
Stratum						
Small scale	-0.381	0.389	-0.980	0.328	-1.144	0.382
Medium scale	-0.157	0.413	-0.380	0.704	-0.966	0.653
Non-agricultural	-0.151	0.390	-0.390	0.698	-0.916	0.614
Medium cost	0.195	0.029	6.710	0.000	0.138	0.252
High cost	0.383	0.033	11.470	0.000	0.317	0.448
Constant	5.421	0.391	13.870	0.000	4.655	6.188

Number of obs =	2671	R-squared =	0.82
F(72, 2598) =	165.06	Adj R-squared =	0.82
Prob > F =	0.00	Root MSE =	0.54

Note: The dependent variable is the logarithm of actual rents. The reference dwelling is a detached house, with walls of cement blocks, with roof of metal/iron sheets, with floor of cement, with an own tap as the source of drinking water, with own flush toilet inside the dwelling, with access to electricity, and located in a low cost urban area in the province of Lusal
Source: CSO/World Bank estimations.

Appendix D

Estimation of the durable goods component

Table D.1: Estimated depreciation rates of durable goods

		Depreciation rate per year	Lifespan (years)	Households reporting
1	Bed	0.0341	29	8,791
2	Matress	0.0314	32	9,631
3	Mosquito net	0.0488	21	9,790
4	Table	0.0367	27	3,299
5	Sofa	0.0484	21	4,452
6	TV set	0.0714	14	5,026
7	Land phone	0.0435	23	67
8	Mobile phone	0.0376	27	7,007
9	Computer	0.0496	20	946
10	Refrigerator	0.0406	25	1,924
11	Deep freezer	0.0247	40	2,080
12	Washing machine	0.0327	31	96
13	Electric iron	0.0417	24	3,407
14	Private water pump	0.0550	18	72
15	Bicycle	0.0390	26	3,796
16	Motorcycle	0.0386	26	150
17	Pick-up truck	0.0456	22	34
18	Car	0.0443	23	985

Source: CSO/World Bank estimations.

Table D.2: Consumer durable goods excluded from the analysis

		Depreciation rate per year	Lifespan (years)	Households reporting
1	Radio, stereo	-0.0114	-	4,986
2	Other pay TV	-0.0624	-	361
3	Dishwasher	-0.1645	-	312
4	Satellite dish (free to air)	0.0009	1084	1,028
5	Satellite dish (DSTV)	0.0174	57	2,082
6	DVD, VCR	0.0193	52	2,513
7	Home teatre	0.0169	59	1,862
8	Brazier, mbaula	0.0086	116	8,523
9	Gas stove	0.0198	51	69
10	Electrical stove	0.0122	82	3,158
11	AC, ventilator	0.0057	175	69
12	Non-electric iron	0.0063	160	1,820

Source: CSO/World Bank estimations.

Appendix E

Standard errors and confidence intervals of the revised 2015 poverty estimates

Table E.1: Poverty incidence, 2015

	Incidence	Std. Err.	[95% Conf.	Interval]
Zambia	54.4	1.7	51.1	57.7
Rural	76.6	1.0	74.7	78.5
Urban	23.4	2.1	19.3	27.4
Central	56.2	3.5	49.4	63.0
Copperbelt	30.8	4.0	22.9	38.6
Eastern	70.0	2.7	64.7	75.2
Luapula	81.1	3.2	74.9	87.3
Lusaka	20.2	3.0	14.2	26.2
Muchinga	69.3	3.6	62.3	76.3
Northern	79.7	3.0	73.7	85.7
North Western	66.4	4.0	58.6	74.2
Southern	57.6	3.6	50.5	64.7
Western	82.2	2.7	76.8	87.6
Small scale	78.9	0.9	77.2	80.6
Medium scale	64.5	3.5	57.6	71.4
Large scale	30.4	8.6	13.5	47.3
Non-agricultural	48.6	5.0	38.8	58.3
Low cost	28.3	2.7	23.1	33.5
Medium cost	7.3	1.4	4.6	10.0
High cost	4.9	1.5	1.9	7.9

Source: CSO/World Bank estimations.

Table E.2: Poverty gap, 2015

	Depth	Std. Err.	[95% Conf.	Interval]
Zambia	26.4	1.0	24.4	28.4
Rural	39.2	0.8	37.6	40.7
Urban	8.5	1.1	6.5	10.6
Central	25.5	2.0	21.5	29.6
Copperbelt	11.8	2.2	7.5	16.0
Eastern	34.7	2.2	30.3	39.1
Luapula	45.4	2.3	40.9	49.9
Lusaka	7.1	1.4	4.4	9.9
Muchinga	35.9	2.5	31.0	40.8
Northern	45.2	2.3	40.6	49.9
North Western	30.2	2.2	25.8	34.7
Southern	24.3	2.0	20.4	28.1
Western	47.4	2.4	42.6	52.1
Small scale	40.9	0.8	39.3	42.4
Medium scale	24.8	2.1	20.7	28.9
Large scale	14.1	4.0	6.3	21.9
Non-agricultural	23.1	2.7	17.8	28.4
Low cost	10.5	1.4	7.8	13.1
Medium cost	2.1	0.5	1.1	3.1
High cost	1.4	0.5	0.5	2.3

Source: CSO/World Bank estimations.

Table E.3: Squared poverty gap, 2015

	Severity	Std. Err.	[95% Conf.	Interval]
Zambia	16.0	0.7	14.7	17.4
Rural	24.3	0.6	23.0	25.6
Urban	4.5	0.7	3.1	5.8
Central	14.6	1.4	11.7	17.4
Copperbelt	6.1	1.5	3.2	9.0
Eastern	21.1	1.8	17.5	24.7
Luapula	29.5	1.8	25.9	33.1
Lusaka	3.7	0.8	2.2	5.2
Muchinga	22.3	1.8	18.7	25.8
Northern	30.0	1.9	26.3	33.8
North Western	17.5	1.5	14.6	20.5
Southern	13.6	1.3	11.0	16.2
Western	31.2	2.0	27.3	35.0
Small scale	25.4	0.7	24.1	26.7
Medium scale	13.4	1.5	10.4	16.4
Large scale	8.1	2.9	2.5	13.8
Non-agricultural	14.6	1.8	11.0	18.2
Low cost	5.5	0.9	3.8	7.2
Medium cost	1.0	0.3	0.4	1.5
High cost	0.6	0.2	0.2	0.9

Source: CSO/World Bank estimations.

Table E.4: Extreme poverty incidence, 2015

	Incidence	Std. Err.	[95% Conf.	Interval]
Zambia	40.8	1.6	37.7	43.9
Rural	60.8	1.2	58.5	63.1
Urban	12.8	1.7	9.5	16.1
Central	39.8	3.2	33.4	46.2
Copperbelt	18.2	3.5	11.3	25.1
Eastern	55.9	3.1	49.8	62.1
Luapula	67.7	3.3	61.3	74.0
Lusaka	11.0	2.3	6.4	15.5
Muchinga	54.4	3.8	46.9	61.9
Northern	67.6	3.3	61.2	74.0
North Western	48.4	3.8	40.9	55.9
Southern	38.1	3.4	31.4	44.7
Western	73.0	3.3	66.5	79.5
Small scale	63.6	1.2	61.3	65.8
Medium scale	39.0	3.2	32.6	45.3
Large scale	19.4	6.1	7.5	31.4
Non-agricultural	33.8	4.0	26.0	41.6
Low cost	15.8	2.2	11.4	20.1
Medium cost	2.8	0.9	1.2	4.5
High cost	2.0	0.6	0.8	3.2

Source: CSO/World Bank estimations.

Table E.5: Extreme poverty gap, 2015

	Depth	Std. Err.	[95% Conf.	Interval]
Zambia	17.5	0.8	16.0	19.0
Rural	26.8	0.7	25.3	28.2
Urban	4.6	0.7	3.2	6.1
Central	15.8	1.7	12.5	19.1
Copperbelt	6.3	1.6	3.1	9.6
Eastern	23.0	2.1	19.0	27.1
Luapula	32.7	2.1	28.7	36.7
Lusaka	3.9	0.9	2.2	5.5
Muchinga	24.8	2.1	20.7	28.9
Northern	33.3	2.2	29.1	37.5
North Western	19.3	1.7	15.9	22.6
Southern	14.6	1.5	11.7	17.5
Western	34.9	2.2	30.5	39.2
Small scale	28.1	0.8	26.6	29.5
Medium scale	14.3	1.9	10.6	18.0
Large scale	8.1	3.2	1.9	14.3
Non-agricultural	15.8	2.0	11.9	19.8
Low cost	5.8	1.0	3.8	7.7
Medium cost	1.0	0.3	0.4	1.5
High cost	0.5	0.2	0.2	0.9

Source: CSO/World Bank estimations.

Table E.6: Squared extreme poverty gap, 2015

	Severity	Std. Err.	[95% Conf.	Interval]
Zambia	9.8	0.5	8.8	10.7
Rural	15.1	0.5	14.0	16.2
Urban	2.3	0.5	1.4	3.2
Central	8.2	1.0	6.1	10.2
Copperbelt	3.1	1.0	1.1	5.2
Eastern	12.8	1.5	9.8	15.9
Luapula	19.3	1.5	16.3	22.3
Lusaka	1.9	0.4	1.0	2.7
Muchinga	13.8	1.3	11.1	16.4
Northern	20.2	1.6	17.1	23.3
North Western	10.0	1.1	7.9	12.1
Southern	7.6	0.9	5.8	9.4
Western	20.5	1.6	17.3	23.8
Small scale	15.8	0.6	14.7	16.9
Medium scale	7.2	1.2	4.9	9.4
Large scale	4.8	2.4	0.1	9.6
Non-agricultural	9.5	1.3	6.9	12.1
Low cost	2.9	0.6	1.8	4.1
Medium cost	0.4	0.1	0.2	0.7
High cost	0.2	0.1	0.1	0.3

Source: CSO/World Bank estimations.

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CSO Mission Statement

"To coordinate and Provide Timely, Quality and Credible Official Statistics for use by Stakeholders and Clients for Sustainable Development"

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