

**DETERMINANTS OF POVERTY IN URBAN AREAS: A CASE
STUDY OF MATHARE VALLEY IN NAIROBI.**

**By
KABUBO F.M.
C50/8598/03**

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree
of Master of Arts in Economics in the University of Nairobi.

University of NAIROBI Library

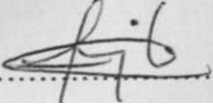


0472920 8

August 2008.

Declaration

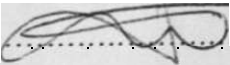
This thesis is my original work and has not been presented for a degree in any other university.

Sign.....  20/03/2008

KABUBO, FRANCIS MWANGI

This thesis has been submitted with my approval as University Supervisor.

DR. TABITHA KIRITI-NG'ANG'A

Sign.....  Date

DR. SAMUEL MISATI NYANDEMO

Sign.....  Date..... . C t

Acknowledgement

Some people supported the completion of this work and I hereby acknowledge the good advice of my supervisors Dr Tabitha Kiriti-Ng'ang'a and Dr. Samuel M. Nyandemo who were greatly involved in my success.

I also thank those who assisted me in data collection at the study site.

However, I am responsible for all errors and omissions in this study.

Dedication

This work is dedicated to my wife Margaret and my son Aubrey for their daily support to me as I worked on the paper.

ACRONYMS

ASAL=Arid and Semi-Arid Lands

ERS=Economic Recover)' Strategy

HIV/AIDS=Human Immuno-Deficiency Virus/Acquired Immune Deficiency Syndrome

FAO=Food and Agriculture Organization

FGT=Foster, Greer and Thorbecke

GDP= Gross Domestic Product

KIHBS=Kenya Integrated Household Budget Survey

KNBS=Kenya National Bureau of Statistics

MDGs=Millennium Development Goals

NIT=Negative Income Tax

PPA= Participatory Poverty Assessment

PRS=Poverty Reduction Strategy

OLS=Ordinary Least Squares

0ASDI=01d Age Survivors and Disability Insurance

ONJ=On-The-Job Training

SPG=Squared Poverty' Gap

SPSS= Statistical Package for Social Sciences

USA/US= United States of America

WHO= World Health Organization

WMS=Welfare Monitoring Survey

LIST OF TABLES

Table 1.1: Kenya; Regional Differentials in the Incidence of Food and Overall Poverty 1994-2006

Table 1.2: Constituency Level Urban Poverty and Inequality Estimates (Nairobi Province)

Table 4.1: Variables in the Regression.

Table 4.2: Mean Consumption per Household

Table 4.3: Marital Status of Respondents

Table 4.4: Level of Education of Respondents

Table 4.5: Sex of Respondents

Table 4.6: The Number of Times the Household head Attended Induction (OnThe-Job Training)

Table 4.7: Commended or Rewarded (Efficiency)

Table 4.8: Number of Years Respondent Has Lived in Nairobi

Table 4.9: Monthly Remuneration of Household Head

Table 4.10: Household Size

Table 4.11: Number of Earners Per Household

Table 4.12: Source of Wealth

Table 4.13: Occupation of Household Head

Table 4.14: Regression Results.

LIST OF FIGURES

Figure 3.1: Process of Poverty Analysis and Recommended way Forward

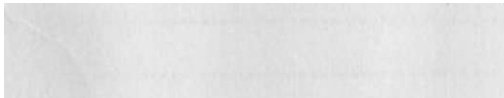
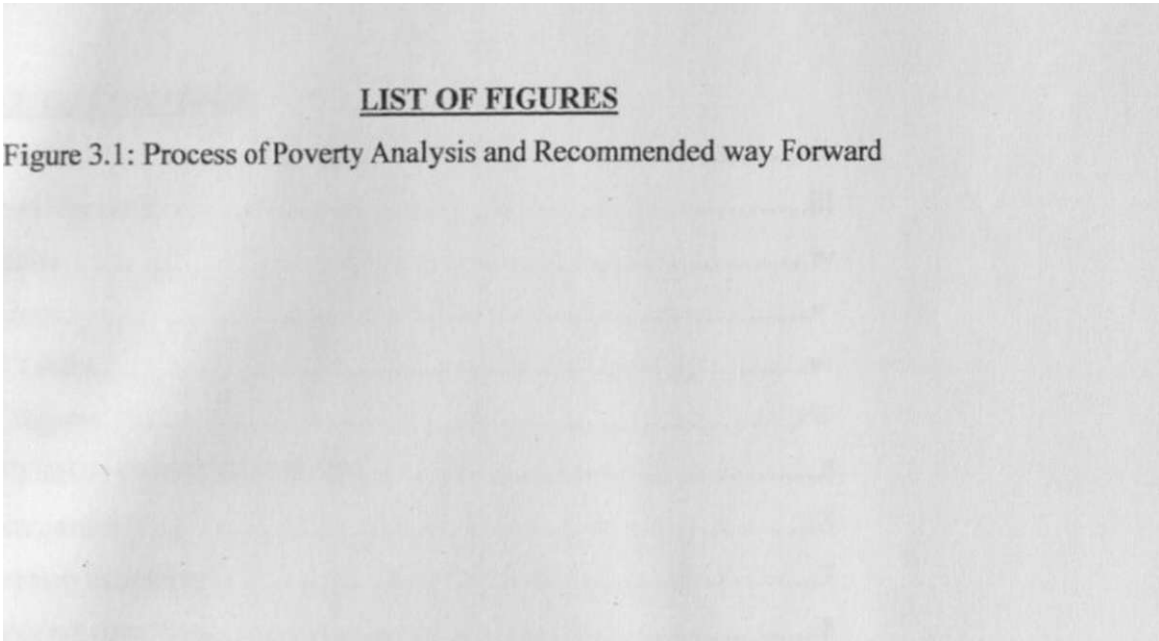
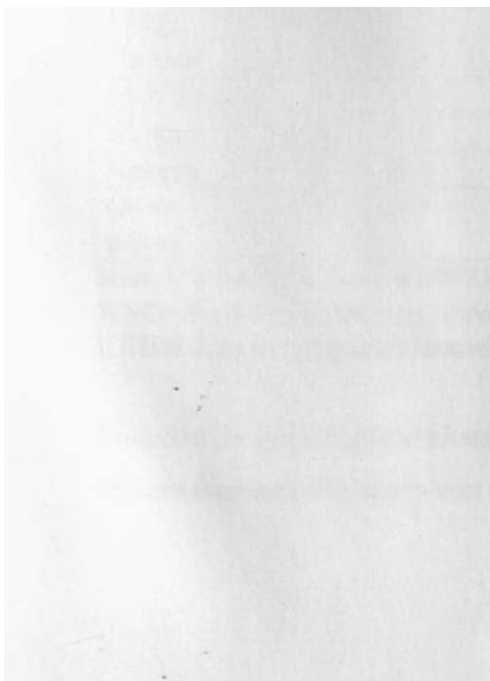


TABLE OF CONTENTS

Declaration.....	"
Acknowledgement.....	•• i
Dedication.....	» ^v
Acronyms.....	^v
List of Tables.....	vi
List of figures.....	vii
CHAPTER 1: INTRODUCTION.....	3
1.1 Background.....	3
1.2 Problem Statement.....	7
1.3 Research Questions.....	8
1.4 Objectives.....	8
1.5 Significance of the Study.....	8
CHAPTER 2: LITERATURE REVIEW.....	9
2.1 Theoretical Literature Review.....	9
2.2 Empirical Literature Review.....	13
2.3 Overview of Literature Review.....	25
CHAPTER 3: METHODOLOGY.....	26
3.1 Conceptual Framework.....	26
3.2 The Model.....	26
3.3 Data Needs.....	30
3.4 Data Sources.....	30
3.5 Study Site and Justification.....	30
3.6 Data Collection Methods.....	31
CHAPTER 4: EMPIRICAL RESULTS.....	32
4.1 Descriptive Statistics.....	32
4.2 Regression Results.....	39
CHAPTER 5: RESULTS AND DISCUSSION.....	43
5.1 Results.....	43
5.2 Conclusion.....	43
5.3 Policy Recommendations.....	44



SH



S

DETERMINANTS OF POVERTY IN URBAN AREAS: A CASE STUDY OF
MATHARE VALLEY IN NAIROBI

1.0 INTRODUCTION

1.1 Background

Alleviation of poverty is a major economic and humanitarian effort and some of the determinants of poverty need to be identified for that purpose. Overall poverty in Kenya has been on the rise since 1994 and it worsened in 1997 when over half of the population lived below the poverty line. Food poverty has also been rising.

Table 1.1 shows the poverty situation in Kenya between 1994 and 1996.

Table 1.1: Kenya: Regional Differentials in the Incidence of Food and Overall Poverty 1994-2006

Region	1994 WMS	1994 WMS	1997 WMS	1997 WMS	2005/06 KIHBS	2005/06 KIHBS
	Food Poverty	Overall Poverty	Food Poverty	Overall Poverty	Food Poverty	Overall Poverty
Kenya	40.1	40.3	48.7	52.3	45.8	45.9
Rural	47.2	46.8	50.7	52.9	47.2	49.1
Central	33.0	31.9	29.7	31.4	31.4	30.4
Coast	51.0	55.6	59.5	62.1	63.5	69.7
Eastern	59.5	57.8	56.8	58.6	45.2	50.9
North Eastern	56.6	58.0	66.0	73.9
Nyanza	41.3	42.2	58.2	63.1	46.0	47.6
Rift Valley	45.8	42.9	48.0	50.1	49.5	49.0
Western	52.3	53.8	58.6	58.8	51.1	52.2
Urban	29.2	29.0	38.3	49.2	40.5	33.7
Nairobi	27.3	25.9	38.4	50.2	29.5	21.3
Mombasa	33.1	33.1	38.6	38.3	50.4	37.6
Kisumu	44.1	47.8	53.4	63.7	46.8	43.4
Nakuru	37.2	30.0	26.8	40.6	49.3	50.2
Other urban	27.1	28.7	37.9	43.5	46.8	42.3

Source: Economic Survey 2007. Kenya National Bureau of Statistics.

WMS=Welfare Monitoring Survey series 1994 and 1997

KIHBS-Kenya Integrated Household Budget Survey 2005/06

From the Kenya Integrated Household Budget Survey (KIHBS) in 2005/2006, it can be seen that overall poverty was 45.9%. Food poverty was 45.8%. In 1994, overall

poverty was 40.3% in Kenya and rose to 52.3% in 1997 according to the results of the Welfare Monitoring Surveys (WMS) in the two respective years. Overall rural poverty was then 46.8% in 1994, 52.9% in 1997 and fell to 49.1% in 2005/06. Urban poverty was 29.0% in 1994, 49.2% in 1997 and was down to 33.7% in 2005/06.

Table 2 focuses on Nairobi Province by Constituency and gives figures for poverty and inequality.

Table 1.2: Constituency Level Urban Poverty and Inequality Estimates (Nairobi Province)

Constituency Name	Poverty incidence %-age of individuals below poverty line (std. error)	Poverty gap as a % of the poverty line (std. error)	Gini index Inequality measure (std. error)	Estimated population from 1999 census	Estimated number of poor individuals (std. error)
Nairobi Province	44	NA	NA	1991724	874058
Makadara	59(4)	23(3)	39(2)	184541	109001 (4567)
Kamukunji	46(4)	15(2)	36(2)	183468	84050 (3285)
Starehe	44(4)	14(2)	36(2)	20225	90430 (3332)
Lang'ata	40(3)	12(2)	40(2)	271111	108617 (3483)
Dagoretti	46(4)	14(2)	36(2)	229612	104934 (3965)
Westlands	31(3)	10(2)	40(2)	188107	58826 (2026)
Kasarani	47(4)	15(2)	34(2)	320739	151592 (5735)
Embakasi	41(3)	12(2)	37(2)	408921	166608 (5725)

Source: Republic of Kenya, 2005

Poverty incidence and poverty gaps are shown for each constituency with a standard error value also shown. Mathare lies in the Kasarani constituency/District. The information shows that Westlands constituency has the lowest incidence of poverty at 31 % and Makadara at 59% being the highest in Nairobi. Kasarani follows closely with a poverty incidence of 47%. Poverty incidence in Nairobi as a whole is 44% going by

information from 1997 Welfare Monitoring Survey combined with data on socio-economic characteristics from the 1999 Population and Housing Census. Five of the 8 constituencies have a poverty headcount index that is above the provincial mean of 44%.

The 8 constituencies in Nairobi Province contribute about 6% to total national poverty. With an estimated 874,058 poor people, almost half (49%) of them are concentrated in 3 of the 8 constituencies, namely: Embakasi (19.1%), Kasarani (17.3%) and Makadara (12.5%). The least contribution to provincial poverty comes from Westlands (6.7%) constituency (Republic of Kenya, 2005).

The Government of Kenya has since independence in 1963 been fighting disease, ignorance and poverty as part of its development objectives. Poverty is defined as the lack of basic necessities of life, services and opportunities for development. It is a condition in which a person or community is deprived of, and/or lacks the essentials for a minimum standard of well-being and life. Since poverty is understood in many senses, these essentials may be material resources such as food, safe drinking water, and shelter, or they may be social resources such as access to information, education, health care, social status, political power, or the opportunity to develop meaningful connections with other people in society. Poverty may also be defined in relative terms. In this view income disparities or wealth disparities are seen as an indicator of poverty and the condition of poverty is linked to questions of scarcity and distribution of resources and power (Wikipedia).

This study of poverty determinants deals with poverty in relative terms. A poverty line is fixed over time in terms of the living standards indicator for the entire country. It does not take into account time and space (Republic of Kenya, 1997). Poverty lines are expressed in terms of adult equivalent consumption expenditure calculated using two money-metric concepts of poverty. Absolute poverty is where there are some basic elements of welfare lacking which every human being has a right to and their attainment and this is not dependent on scarcity of local resources but is inspired by the universalist value of human dignity.

Food poverty means not being able to meet basic minimum nutrient requirements (calories) for a healthy growth and maintenance of the human body. Food and

Agriculture Organization (FAO)/ World Health Organization (WHO) minimum recommended daily allowance is 2250 kilocalories per adult equivalent. The food poverty line of Kshs 702.99 is the minimum monthly consumption (in the rural areas) required to meet the recommended daily energy intake of 2250 kilocalories from the chosen basket of food items. The figure is Kshs 978.27 for the urban areas (Republic of Kenya, 1997). Absolute poverty lines for the rural and urban areas are Kshs 874.72 and Kshs 1489.63 respectively. From the Welfare Monitoring Survey III (1997) the food poverty line was Kshs 927.1 per month per adult equivalent for rural areas and Kshs 1253.9 for urban areas. Overall poverty encompasses lack of both food and non-food basic requirements. Hardcore extreme poverty exists when one cannot meet his/her minimum calorie requirements even if one concentrated all of his/her spending on food (Foster, Greer and Thorbecke, 1986). For the period between May 2005 and May 2006 the overall poverty lines were Kshs 1,562 and Kshs 2,913 for rural and urban areas respectively. The poverty lines were derived from the Kenya Integrated Household Budget Survey (KIHBS) conducted between May 2005 and May 2006. These measures of welfare were based on consumption rather than income.

As stated by Mariara and Ndege (2004), poverty is multidimensional and complex in nature and manifests itself in various forms. No single definition can exhaustively capture all aspects of poverty. According to the Participatory Poverty Assessment surveys (PPAs), "poverty is hunger, lack of shelter; sickness and being unable to see a doctor (afford medical care). Poverty can also be defined as not being able to go to school, not knowing how to read, not being able to speak properly. Poverty is not having a job and fear for the future, living one day at a time. Poverty is losing a child to illness brought about by malnutrition and unclean water. Finally, it is clear from the multi-faceted nature of poverty that the nature and characteristics of poverty go beyond income measures alone. This means that certain aspects of poverty can be captured by quantitative surveys while others can be established by qualitative studies. In Kenya the two approaches have been used to generate information on the magnitude, extent, nature and characteristics of poverty.

Poverty is a rural-urban phenomenon and it affects the socially disadvantaged groups. Socially disadvantaged groups in Kenya are in social categories namely the landless,

people with disabilities, female headed households, households headed by people without formal education, pastoralists in drought prone Arid and Semi-Arid Lands (ASAL) districts, unskilled and semiskilled casual labourers, AIDS orphans, street children and beggars, subsistence farmers, urban slum dwellers and unemployed youth (Mariara and Ndenge, 2004).

It is important to study poverty determinants so that with the knowledge, such disadvantaged groups may be assisted by governments or international donor agencies. In understanding the determinants of poverty the economy can consider such determinants in its development plans to alleviate poverty.

Earlier poverty studies have focused on discussion of inequality and welfare based on limited household level data (Bigsten, 1981; Hazlewood, 1981; House and Killick, 1981). Some recent comprehensive studies of the subject are those of Mwabu et. al. (2000), which deals with measurement, profile and determinants of poverty, Manda et. al. (2001) on a review of poverty and antipoverty initiatives in Kenya, and Mariara and Ndenge (2004) on measuring and monitoring poverty in Kenya among others.

1.2: Problem Statement

Poverty is a serious social and economic issue in Kenya. It is necessary to document all determinants of poverty and seek ways to alleviate it for the sake of the suffering population. There are disparities of the incidence of poverty in the rural and urban areas as well as differences from province to province in Kenya. As such, it is necessary to study poverty per region (urban area in this research) in order to see the possible differences in causes of this phenomenon and how to eradicate it. This is a research on determinants of urban poverty done in Mathare in particular in order to seek ways of informing policy on poverty alleviation. Other people have studied the determinants of poverty but they have carried out their study in different settings. Our setting is rather different from previous researches because we used a location-level analysis while for example the Kenya National Bureau of Statistics (KNBS) never collects data in clusters smaller than the district level. There are three locations known as Mathare, Mabatini and Mlango Kubwa forming a part of a district but our research is only covering Mathare.

1.3: Research questions

- What is the nature and extent of poverty in Mathare valley?
- What are the determinants of poverty?
- How can poverty be alleviated?

1.4: Objectives

The overall objective of this study was to find out the determinants of poverty in urban areas with particular reference to Mathare.

Specific objectives were

- To analyse the nature and extent of poverty in Mathare Valley
- To find ways of poverty alleviation by investigating the determinants of poverty.
- Based on the above, make suggestions on policy.

1.5: Significance and Justification of The Study

Our aim in this research in Mathare is to help policy makers to get a way forward in regard to poverty reduction. With the determinants of poverty on hand, it is possible to attack poverty by controlling the determinants one by one. Vision 2030 planned by the Kenya Government also has great interest in eradication of absolute poverty and famine and our research should therefore be quite useful to the government. Another area the paper would be useful is in helping in the achievement of one of the Millennium Development Goals (MDGs) namely halving extreme poverty, that is, reduce by half the proportion of people living on less than one dollar a day and reduce by half the proportion of people who suffer from hunger by 2015.

Our research is therefore likely to help in giving a way forward in the poverty reduction programs. The research will equally add to the existing literature on poverty related issues.

CHAPTER 2: LITERATURE REVIEW

2.1: Theoretical Literature Review

Myles (1995) defined poverty as a situation involving a lack of income and consequent low level of consumption welfare. The distinction between absolute and relative poverty has implications for changes in the level of poverty over time and the success of policy in alleviating poverty. The concept of absolute poverty assumes that there is some fixed minimum level of consumption or income that constitutes poverty and that is independent of time or place. Such a minimum level of consumption is often taken to be a diet that is sufficient to maintain health and provision of housing and clothing. From this view, if the incomes of all households rise, there will eventually be no poverty. Viewed as an absolute concept, it is possible for poverty to be eliminated. However the appropriateness of absolute poverty has since been replaced by the notion of relative poverty. Relative poverty is defined in terms of the standards and norms of a given society at a given time. As the standard of living of the society rises and more goods are required to be decent, the income level required to be out of poverty must increase.

The poverty line is defined here as that level of income on or below which a household is defined as being in poverty. There are some standard measures according to Myles (1995). One of these is the head count ratio which measures the extent of poverty by counting the number of households whose incomes are not above the poverty line. It has a major disadvantage of not paying attention to how far the household falls below the poverty line and therefore gives no indication of how costly it would be to alleviate the observed poverty. Headcount ratio is given by

$$e = q/H$$

Where

e is the headcount ratio

q is the number of households in poverty

H is the size of population.

This measure was used by Rowntree (1901) and has been used in many other subsequent studies. The second and third measures are the aggregate poverty gap and the income gap ratio both of which take account of how far below the poverty line the

incomes of the poor households are. This report by Myles (1995) is in our opinion a good contribution in the measurement of poverty and is important in theories and researches on poverty.

The objective of Hodgetts et. al. (1993), was to outline the problems of income distribution in the United States (US) which included poverty and the plight of American farmers. They outlined definitions of poverty, causes of poverty and ways to fight poverty among other issues about farmers. The authors stated that poverty can be defined in different ways. Most people regard it as a condition in which people are unable to buy the minimal amount of food, clothing, and shelter that is required for existence. Many economists determine poverty in terms of how much money people must have in order to buy necessary goods and services. The US federal government uses this approach. It establishes a poverty line - a level of income below which people cannot attain an adequate standard of living which changes with change in the cost of living.

The authors found that the causes of poverty are; first, education and training. The United States Census Bureau found that families with a householder - the owner or renter of the house - who had failed to complete elementary school had a poverty rate of 28.9 percent in 1989. The rate fell to 23.2 percent for householders who had attended high school, 7.9 percent for those who had high school diplomas, and 5.2 percent for those who had attended college. Workers with education and training are not only more likely to be hired and to hold jobs, but are also more likely to find other jobs if necessary because they have the background that allows them to change.

The second cause of poverty was economic changes. The authors found that advances in technology, for example, can lead to unemployment and poverty among workers whose jobs are taken over by machines. In the 1980s in the United States, workers who knew how to do only one job and did not acquire the skills to use the new machines (computers) often joined the ranks of the unemployed - and eventually the ranks of the impoverished. Unemployment and poverty also occur in areas where a major industry closes or moves away. When businesses move from cities to suburbs, for example, they take jobs with them. Urban workers who cannot find new employment or are unwilling to go elsewhere remain jobless. Another economic

change that helps to cause poverty is inflation. Unless incomes rise at the same rates as prices, inflation causes real income to fall. Thus the amount of goods and services that people can buy with a given income decreases. Many elderly, ill and disabled Americans live on fixed incomes, which fail to keep pace with the rising cost of living. As a result, these people can afford to buy less and less. Economic recessions and depressions can also lead to poverty. As the economy slows down, businesses lay off workers, first the unskilled, then the skilled, and eventually managers. Unemployment compensation and savings, if any, provide some income. Over time, however, many of the unemployed sink into poverty.

The third cause of poverty is discrimination whereby all workers do not find equal opportunity in employment and this contributes to poverty. Some employers avoid hiring members of minority groups and women. Others pay such people less than workers with similar qualifications who are not members of minority groups or women.

The fourth cause of poverty is ownership of wealth. In the mid-1960s, 25 percent of all the families in the United States had no wealth, that is, money or property. One percent of all families had 26 percent of all the wealth, and 8 percent held 60 percent. The authors stated that the situation has not changed much since then. The authors explained that this unequal distribution is described in the cliché "it takes money to make money". People who have money to invest have the best chance of increasing their wealth. In addition, they are able to provide their children with college education and pass their money on to them. The poor, in contrast, have no money to invest for themselves or for their children's future. Often only poor children with outstanding abilities can escape the poverty of their parents or even grandparents.

The authors wrote that the existing measures of fighting poverty in the United States were, for example, social security which provides two major kinds of insurance: Old Age Survivors and Disability Insurance (OASDI) and health insurance, called Medicare. OASDI provides a monthly payment to insured people or their dependants to replace the earnings lost when a person retires, is disabled or dies. Medicare pays a portion of the hospital costs for people over 65 years of age. It also makes available medical insurance which covers most of the cost of doctors' fees. Secondly there is

unemployment insurance whereby payments are made to workers who become unemployed. The program is financed by federal and state payroll taxes paid by employers and cover about 90 percent of all workers. Other assistance is one for those who do not qualify for OASDI or unemployment compensation and are assisted through Supplement Security Income for the Aged, Blind and Disabled (SSI). Workers compensation is another form of assistance to fight poverty. Employers are required to make payments to workers who have been injured or who have contracted a disease on the job. If the worker is injured on the job the employer pays the medical and hospital expenses. Another way used by the US government to reduce poverty is that of education and training. A law was passed in the US called the Job Training Partnership Act whose purpose was to train unskilled workers, teenagers from low income families, and needy adults for work in private industry. Finally, negative income tax (NIT) as a program to end poverty was introduced which is a subsidy received by people who earn incomes below a given level. As people's income from other sources increases, the government's contribution would decline and eventually stop.

The authors have incorporated training in the education determinant which we believe is very appropriate when it comes to the worker specializing. Training helps the educated person to study job skills making him very suitable in the labour market. Some courses in the education system have proved inadequate when it comes to serving in both private and public sectors. This study shows that on the job training, even if it is just induction, gives the workers a better chance and assists them to keep their jobs.

The statement by the authors that "In the mid-1960s, 25 percent of all the families in the United States had no wealth, that is, money or property", is debatable because only a beggar can fall into that class having no money or property. It is unlikely to have such a big percentage (25 %) especially in a rich nation as the US.

The objective of Todaro (1992) was to suggest ways of fighting poverty. Todaro (1992). stated that the magnitude and extent of poverty in any country depends upon two factors; the average level of national income and secondly the degree of inequality in its distribution. The author noted that for any given level of national per capita

income, the more unequal the distribution the greater will be the incidence of poverty and that for any distribution, the lower the average income level, the greater will be the extent of poverty. Development economists attempted to establish a common poverty line. They then devised the concept of absolute poverty representing a specific minimum level of subsistence income necessary to secure the basic physical needs of food, clothing and shelter in order to assure continued survival. A universal poverty line is seen to be unreliable because of variance of minimum subsistence levels from country to country. Economists have therefore tried some methodology on the international poverty line for example 250 constant US dollars (based for example on the value of the 1985 dollar) and then attempt to estimate the purchasing power equivalent of that sum of money in terms of a developing country's local currency (Todaro. 1992). Today, those people who survive on a dollar a day and below are described universally as poor.

Todaro (1992) recommends the need for a package of policies; a set of policies designed to correct factor price distortions so as to ensure that market prices provide accurate signals and incentives to both producers and resource suppliers, a set of policies designed to bring about far reaching structural changes in the distribution of assets, power and access to education and associated income earning opportunities, a set of policies designed to promote indigenous technological research and development on relevant Third World problems where emphasis is placed on finding efficient methods of providing low-cost health, housing, and training service, improving small-scale agriculture and expanding urban and rural employment opportunities. The author stated that the interaction between all these policies would provide a comprehensive agenda for any national attack on the pervasive problems of mass poverty and income inequality.

2.2 Empirical Literature Review

This section reviews empirical literature. Alemayehu et. al. (2001) focused on identifying the major determinants of poverty in Kenya with the aim of establishing how government policies can be linked so as to arrive at poverty reducing policy measures. The authors also wanted to provide a basis for evaluating the government's

poverty reduction strategy. The authors used the ordered logit models to explain why some people are non-poor, poor or extremely poor. They justified the use of the method because they explicitly ordered the population sub-samples using poverty lines as cut-off points in a cumulative distribution of expenditure. They identified different population sub-groups in several stages. In the first stage they identified the poor and the non-poor. In the second stage they examined the probability of being extremely poor once a person is identified as poor. The authors found that explanatory variables for poverty are classified as poverty related such as land and livestock, household characteristics such as status of employment, age, gender, educational level, household size and others such as time spent to fetch water, residence of the household (whether rural or urban) or in a particular province.

The estimation was carried out for models with different types of dependent variables; poverty defined on the basis of 1) income per capita and 2) per adult equivalent and 3) consumption per capita and 4) per adult equivalent. Estimates from these 4 models exhibited similar signs although the magnitudes of coefficients differ substantially across models. According to the results, male headed households are less likely to be poor. Similarly the likelihood of being poor is smaller in urban than in the rural areas. Also, people living in households mainly engaged in agricultural activities are more likely to be poor. In all the models, the most influential factor of poverty status is the level of education. Total holding of land does not seem to be important in any of the specifications. Their results show that the factors strongly associated with poverty (level of education, household size, engagement in agricultural activities) are the same in both rural and urban areas. However the size of the coefficients associated with regressors are larger in rural areas. Polygamous marriage seems to worsen poverty in urban more than in rural areas. This may indicate that labour input is more important in rural than in urban areas.

The authors recommended that because poverty is concentrated in the rural areas in general and in the agricultural sector in particular, a policy to invest in this sector in ways to reduce poverty should be a matter of great priority for example the use of farm inputs to increase productivity. Secondly, promoting education is central in addressing problems of moderate and extreme poverty since educational attainment of

the household head (especially secondary and university education) is an important factor associated with less poverty. Finally, promoting female education should be an important element of poverty reduction policies. This is because female education has a positive influence on poverty reduction. Also, female education and fertility are negatively correlated leading to a reduction of household size which is also a determinant of poverty according to Alemayehu et. al. (2001).

Land holding is not important in determining poverty in the Alemayehu et. al. (2001) paper. However this is a contentious finding because already the market value of that land is wealth in that household. A portion of land to the farmer is an asset. In a worst case scenario a farmer can sell his land and use the money to develop a business and earn a decent living. Maybe the model used here to show the determinants of poverty may not have accommodated the land value as a variable.

Jalan and Ravallion (1998) in their study in rural China of chronic and transient poverty wanted to test whether different processes are at work in determining transient versus chronic poverty. The main empirical poverty measure used in measuring transient and chronic poverty is the Squared Poverty Gap (SPG) index of Foster et. al. (1984). The SPG for household i is

$$p(y_i) = \begin{cases} (1 - y_i)^2 & \text{if } y_i < 1 \\ 0 & \text{otherwise.} \end{cases}$$

Where y_i is normalized by the (possibly household-specific) poverty line and thus takes the value of unity for someone at the poverty line. The aggregate SPG is the household-size weighted mean of $p(y_i)$ across the whole population. A table of descriptive statistics was drawn on household and geographical characteristics to the sample used in the analysis. On average, the sample was fairly represented across the 4 provinces. About a third of the adults in the households were on average illiterate. This is also reflected in the proportion of illiterates in 15+ population at the country level.

There were only a few households with members working in the non-farm sector i.e. in the state sector. It was found that the average consumption is 342.19 Yuan while the average income of the household in the sample is 446.31 Yuan.

The most important set of variables determining transient poverty were the household stage of life cycle, wealth holdings and the standard deviation of the household's wealth holdings and cultivated land holdings. Demographic characteristics such as household size, education level of the household head, children's education level, labour force of the household and age composition of the children in the household were more important for chronic poverty. Grain yield was associated with higher chronic poverty. Higher physical wealth reduces both types of poverty. Households with higher cultivated land per capita are less vulnerable to chronic poverty. The above results suggest that determinants of total poverty reported in the literature are determinants of chronic poverty. Only physical assets are important when it comes to transient poverty.

Jalan and Ravallion (1998) suggested that while China's poor area development program may well have been an appropriate policy response to chronic poverty, it was unlikely to help much in reducing the variability in consumption that households typically face in this setting. Exposure to uninsured income risk that underlies the high transient poverty would probably persist. In such cases other policy instruments like seasonal public works, credit schemes, buffer stocks, and insurance options for the poor to smooth variability in income and/or consumption may well be needed.

Rodriguez and Smith (1994) sought to find out the determinants of urban, rural and farm poverty and a comparison of the three. Their analysis used logit regression which estimates models with a binary dependent variable with mutually exclusive and exhaustive outcomes (Logit models). The dependent variable was the poverty status of the family / which is one if poor and zero if non-poor. The logit regression model is given by

P

$$g(P.Hog[(-P_0)]^{-Zk PkX^*}$$

Where

$$\exp[XpkXik]$$

$P_i = P(Y_i=1/x_i) = \frac{\exp[SP_jcX_{i_c}]}{1 + \exp[SP_jcX_{i_c}]}$ is the likelihood that family / is poor and where

Y_i is poverty status of family i .

$Y_i=1$ if the family is poor and zero if the family is non-poor.

X_i is the A th explanatory variable of the likelihood of poverty of family i and

B_k is the parameter associated with X_t (Aldrich and Nelson, 1984).

Rodriguez and Smith found that sex of head; marital status and age have no statistically significant effect on poverty in their models. The determinants of poverty with significant estimated coefficients for the sample as a whole are the education of the family head, family head's parent's education, the child dependency ratio and whether or not the family head is employed in the urban residence and farm residence. Farm residence was significantly related to an increase in poverty. The results showed that more education by the head of the household and the head of the household's parents, the head being employed, and residence in an urban area reduced the likelihood of poverty while a greater child dependency ratio and farm residence increased the likelihood of poverty. The higher the ratio of the number of family members employed to family size, the lower the likelihood of poverty.

For urban and rural families, the significant determinants of poverty were the same with one exception. Among rural families, the educational background of the head of the household's parents influenced the family's poverty status, but not among urban families. The likelihood of poverty was significantly lower for rural families in which the head of the household's parents had completed some education. The authors recommended that a policy urging smaller families, and thus lower child dependency ratios, should be applied to help reduce future poverty levels.

Sex of household head, marital status and age were all determinants of poverty though the authors found that these had no statistically significant effect on poverty. Male headed households are known to be less poor than female headed households. There is a significant relationship between sex of household head and the poverty status as seen in our paper.

Shirazi (1995) sought to explore the impact and role of Sadaqat in determination of poverty status of a household. Sadaqat, also described as spending in the path of Allah, is a transfer to the poor as financial assistance. However, the impact of some other characteristics that have a significant association with poverty status of a household were also evaluated. Such characteristics included size of the household, educational

level of the head of the household, number of earners in a household, and the province the household belonged to.

In the methodology, Shiraz (1995) used the Logit model to evaluate the role of Sadaqat and the other characteristics. The author chose Logit over Probit arguing that each is similar to each other and that the Logit model was simpler to use. The model used was

$$P_i = \frac{e^{-(a + \beta X_i)}}{1 + e^{-(a + \beta X_i)}}$$

This equation one can be rewritten as

$$\ln \left[\frac{P_i}{1 - P_i} \right] = -a - \beta X_i$$

The ratio $P_i / (1 - P_i)$, is called the odds ratio. And $\ln (P_i / (1 - P_i))$ is called Log-odds or Logit which acts as a dependent variable. This ratio gives the odds that the household is poor. A positive sign of the estimated coefficient would mean that the probability of a household being poor is higher than that in reference category and vice versa, keeping all other characteristics constant.

Where X_i is the probability that i th household will be poor given X_i , where X is a vector of explanatory variables, e is the base of natural logarithm.

Shirazi (1995) found that the relationship between Sadaqat and poverty had negative signs overall as well as in the rural and urban areas of Pakistan. The coefficient of this relationship is however very small and significant only at 10% level of significance. The author believed that this could be due to small collections of Sadaqat and transfers of these to the poor. The results of the model showed that the households living in Punjab had the highest probability of being poor followed by Sindh. The same pattern was observed for urban and the rural areas of Pakistan. Shirazi also found that as the educational level of head of the household increases the probability of a household being poor decreases. The results also show that as the number of earners in a household increases the probability of being poor decreases and that as the household size increases the probability of a household being poor increases.

Coulombe and McKay (1996) while investigating the determinants of poverty in Mauritania pursued two aims which were; to provide a brief descriptive

characterization of poverty in Mauritania, and to undertake a detailed analysis of the factors influencing living standards and poverty at the household level. Their second aim was to suggest an approach to analyze determinants of poverty using household survey data.

The authors decided to use an econometric approach to model the living standards of households namely the multinomial logit selection model, among others, by Lee (1983). The authors justified the choice of the model saying that the approach models the standard of living based on two equations, the first capturing the choice of socioeconomic group and the second the determination of the standard of living conditional on the particular socioeconomic group.

The authors concluded that the following were determinants of poverty. Being in the urban centers alone was found to have a highly significant and positive influence on the standards of living. Living in towns was seen to increase the probability of being in wage employment. Education of the economic head of the household was found to be an important determinant of standard of living among all groups (i.e. importance of location, demographic and education factors) implying it is a good determinant of poverty. Generally, the more the education, the higher the living standards and the lower the probability of being poor. Household size was found to have a significant negative influence and if its composition had many members less than 15 years old, this increased poverty and for members more than 65 years old it decreases poverty but at a decreasing rate.

Herding as opposed to cultivating crops was found to have a strong positive influence on the standards of living. Ownership of land as well as employing hired labour also had a positive influence on living standards. Owners of land had a positive influence on living standards as opposed to the nomads who are very poor and have no own land. Hired labour was significant because of those who work in large plantations. It was found that being located in urban centers reflects positively on living standards. Wage earners (employees in the [private] formal sector) in the urban centers had a positive influence on living standards. The authors found that those working in the private formal sector were less likely to be poor than those working in the government. Other factors that influence living standards were 1) possession of formal sector

savings of nonworking household, and 2) the age of household head (i.e. over 65yrs) which displayed a positive influence on living standards though at a decreasing rate. In their recommendations, the authors said that lack of education and high levels of dependency were clearly major constraints for many households and reducing the extent or impact of these problems was a clear priority in the longer term. They observed that attention needs to be paid immediately to the reduction of urban-rural inequalities given that poverty in Mauritania is disproportionately a rural phenomenon and given that such inequalities are likely to be an important contributory factor to urban poverty as well.

To say that "being in the urban centers alone was found to have a highly significant and positive influence on the standards of living" is misleading because many urban dwellers (especially unskilled labour) do casual labour which is not even guaranteed every day and the pay is low.. It would be better for such people to raise some livestock in the rural areas and make a steady living there.

Ghazouani and Goaid (2001) wrote a paper on determinants of urban and rural poverty in Tunisia. Their objective was to identify some of the key contributory causes of poverty in Tunisia among the urban and rural people at the household level and to determine the potential factors of poverty and to evaluate their impact on household welfare. The authors gave particular interest to econometric methodology which is concerned with the analysis of panel data with limited dependent variables. The methodology developed for this study was inspired by Deaton's approach [1987; 1990] with the use of panel data analysis from a household budget survey. The authors required that households be clustered geographically within the sample so that prices are assumed to be uniform there. Discrete choice models are used in this study whereby econometric modeling consists in confronting two alternative and mutually exclusive situations of being considered as poor or not. The Probit and Logit model specifications are used. A poverty line is computed below and above which description as poor or not poor is decided.

The authors found that determinants of poverty include head's education, child dependency ratio, ratio of male and female employees in the household, socio-professional category of the head, family residence type of lodging, and the share of

food budget assigned to cereal products, quotas and regional dummies. The authors explained that an increase in the food budget assigned to cereal products increases the likelihood of poverty while more education of the head and a greater ratio of male and female employees in the household reduces the likelihood of poverty. The human capital as well as the participation of women in the labour market constituted so many chances that can reduce the intensity of poverty within the household. They found that concerning the proportion of males to females and the differences in the weights associated to these variables are more pronounced in the rural areas where the principle source of income for the active males is the agricultural salaried work. As for the type of lodging, the estimations indicated that in both areas poverty was more likely to be intense when the household dwelt in a lodging of the type "gourbi" compared to the households dwelling in modern lodging and/or "arab houses". The relative difference between the rural and urban area was also examined. They found that a male household head according to the socio-professional category, his being unemployed and an agricultural salaried worker increases the likelihood of being poor. Further, their results indicated that the economic disadvantage of female headship is an urban phenomenon where the female headed household is associated with a higher likelihood of poverty.

One major finding Ghazouani and Goaid (2001) came across was the strong correlation between intensity of poverty and cereal expenses of the household. An urban household allowing more than 25% of its food budget share to cereal products has a 67% probability of being poor (54% in the rural areas). The results indicated that food subsidies concerning cereal products and basically hard wheat products have valuable implications within the context of poverty alleviation. Actually cereal products constitute a strategic commodity for the poor in Tunisia. Some of the wheat (a cereal) products like flour and bread are subsidized by the government. The authors also noted that the intensity of poverty in rural and urban areas is significantly different according to regions. They recommended for a geographically targeted policy, which would be more efficient if they proceeded in a finer elimination within each area according to region. The finding that employment in agriculture increases

the likelihood of poverty calls for a policy measure to develop agriculture by irrigated crop production in Tunisia.

The objective of Manda et. al. (2001) in their study of poverty and antipoverty initiatives in Kenya was to carry out a comprehensive review of the extent and causes of poverty, and to evaluate previous and current strategies and initiatives at alleviating poverty, as well as suggest areas that require further research. The authors found that economic growth is said to have a positive effect on poverty reduction. Kenya's gross domestic product (GDP) increased by 0.3 % in the year 2000 down from 1.4 % in 1999. This implies that per capita growth continued to fall hence poverty can also be expected to have arisen over the same period. The slowdown in economic activity was reflected in most of the key sectors of the economy and was attributed to drought, poor infrastructure, inefficient telecommunication services, mismanagement of farmers' institutions, and a general feeling of insecurity in the country.

The authors also found that a high degree of unequal income distribution can have a negative effect on growth and poverty. Kenya has the highest degree of unequal income distribution of any low-income country in the world and the fourth highest in the world. The inequality is only lower than that of Guatemala, South Africa and Brazil (World Bank, 1997).

The analysis by Mwabu et. al. (2000) and Oyugi (2000) using the 1994 WMS II identified the following determinants of poverty; education level, time spent collecting water and firewood, land and livestock holding, family size, sector of employment, and unobserved region specific factors. Education reduces the incidence of poverty as well as the poverty depth and severity. Costs of obtaining water and firewood are positively correlated with poverty but the size of assets (for example, land and livestock) owned are negatively associated with poverty incidence and severity. Employment in the formal sector is strongly correlated with poverty reduction.

Manda et. al.(2001) noted that the findings of the participatory poverty assessment studies (PPAs) show that the main indicators of poverty include strong urban bias in design, of development programmes, geographical isolation of some social groups, drought, floods in low lying areas, wildlife menace, water hyacinth in fresh water lakes, reluctance to use family planning, ethnic clashes, insecurity in urban and rural

areas, eviction of squatters, lack of job opportunities, lack of land, laziness, poor government planning and intervention, corruption and large families. These factors, although not quantifiable, need to be taken into account in the design of poverty alleviation policies. Other indicators of poverty include lack of good governance and weak democratic institutions which are increasingly seen as factors that perpetuate poverty in Kenya (Ikiara and Tostensen, 1995). Corruption also contributes to rising poverty in the country due to stealing of huge amounts of public funds. The authors said that a much recent important cause of poverty in Kenya is the HIV/AIDS. The emerging poverty related HIV/AIDS concerns are AIDS orphans, population size and growth, costs of health care, and child mortality.

Manda et. al. (2001) used descriptive and tabular methodology in their estimates of poverty from data available from previous studies. In their conclusions, the authors found that substantial disparities in the incidence of poverty exist between rural and urban areas and between rural areas with above average poverty levels found in arid and semi-arid areas. Most of the poor are in the rural areas and include subsistence farmers and pastoralists. Rural poverty is highly connected to agriculture and land, and is explained by low access to physical assets (mainly land), non-farm employment opportunities, health-care, and schooling while urban poverty tends to be explained by labour market distortions. Poverty estimates are low for urban areas, but very little has been done to estimate poverty for different urban centres. The incidence of poverty is high and persistent in certain rural areas such as the ASAL areas. Most of the Kenyan studies on poverty base their analysis on single household surveys of consumption or income which have a minimal set of other relevant variables. Closer scrutiny of sampling and survey methods and their effect on poverty is needed.

Poverty in Kenya is caused by a number of factors, which include a high degree of inequality of income and production resources, inequality in the access to economic and social goods and services and in participation in social and political process. Other causal factors include lack of education, lack of job opportunities, unfavourable climatic conditions, large family sizes, poor government planning and interventions, lack of good governance and weak democratic institutions and practices.

The authors indicated that the size of assets like land and livestock are negatively related to level of poverty unlike some other researchers who have generalized that just being in the rural areas means the person is poor after ignoring the asset of land. In our opinion, if farmers have large farms though they may not be utilising them fully, they are not in poverty since land is a major factor of production and a valuable asset. It is interesting to note the new determinants that Manda et. al.(2004) considered like unfavourable climatic conditions, poor government planning and interventions, lack of good governance and weak democratic institutions and practices, and participation in social and political processes. These have not been outlined by previous authors.

Mariara and Ndenge (2004) in their objective sought to assess the existing ways of measuring and monitoring poverty in Kenya which use quantitative surveys and qualitative assessments.

The PRS/ERS similarly recognized that poverty is multi-dimensional and poverty was defined to include inadequacy of income and deprivation of basic needs and rights, and lack of access to productive assets as well as to social infrastructure and markets. The quantitative approach of measuring poverty defines the poor as those who cannot afford basic food and non-food items. The PRS/ERS adopted the quantitative measures of poverty based on the 1997 WMS data. The 1997 Welfare Monitoring Survey estimated the absolute poverty line at Kshs 1,239 per person per month for the rural areas and Kshs 2,648 for urban areas. These are national figures.

The authors concluded that the measure of poverty defined in most of Kenya's quantitative poverty refers to a lack of command over marketable goods and services. Although this measurement is undeniably important, it is clearly not the only dimension of well-being. Command over non-market goods, such as some publicly provided services (value of free primary education, health etc) may be an important omission in conventional poverty measures.

The authors recommended that, if possible a Participatory Poverty Assessment (PPA) be organised alongside the KIHBS but be designed in a manner that would allow sensible comparison of the results. They also recommended that these surveys form not only a good benchmark for poverty monitoring, but also a springboard for further

poverty diagnostics and feedback into the data collection systems. The authors commented that the consultation of Poverty Reduction Strategy/Economic Recovery Strategy (PRS/ERS) processes represent a good entry point for opening up the policy making process and improving the deficit in governance that exists in Kenya.

2.3: Overview of Literature Review

Most of the poverty literature that we have analyzed has tended to agree on the main determinants of poverty. Such determinants are education level, household size, place of residence, gender of household head and number of earners in the household among others. There seems to be a close relationship between urban poverty and rural poverty because many of the determinants of poverty are the same in both cases.

The next section looks at the methodology used in the study.

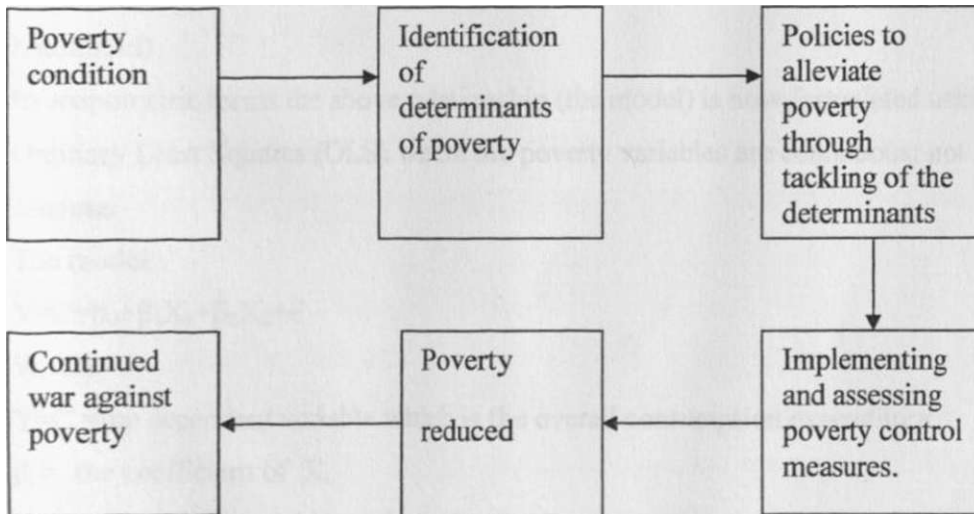
CHAPTER 3: METHODOLOGY

In this chapter we show the method of data collection and analysis. However we start with the conceptual framework.

3.1: Conceptual Framework

Figure 1 is a flow diagram representing the process that was followed in our study of determinants of poverty and the recommendations and conclusions that come from the results of the study. The problem under study is poverty, its determinants and its implications on policy. The study had aimed at investigating the determinants of poverty and exactly how they relate to poverty. The next step was to suggest policy options to fight poverty through the tackling of its determinants. If the determinants are proven as causes of poverty then in the next stage a policy to control (or reduce) poverty will be drawn. Through that policy, the implementation of poverty control measures is done and an assessment of the same is carried out which is a step in the direction of poverty reduction. As poverty reduces the war against it is continued with a hope of its final eradication.

Figure 3.1: Process of Poverty Analysis and Recommended way Forward.



3.2: The Model

Rodriguez and Smith (1993) used logit regression because they were measuring poverty in a binary form such that the person is either poor or non-poor. The variables used were discrete. While we borrowed from the authors' approach, in our study we used OLS (which they considered and rejected) such that the poverty measure was the consumption method. According to the Kenya Integrated Household Budget Survey (KIHBS) done between May 2005 and May 2006, the overall poverty lines were Kshs 1,562 and Kshs 2,913 for rural and urban areas respectively. We classify the respondents in their classes with relative levels of poverty.

Those with few assets, no on the job training, little inheritance, large households, with female headed households, can be described to be in extreme poverty and others who have all the cited assets in abundance are to be regarded as less poor and others non-poor. Using Ordinary Least Squares (OLS) we prove that the above factors are the main true determinants of urban poverty.

Simply put, the relationship is as shown below. Some relationships are direct proportion and others are inverse as shown by the plus and minus signs respectively.

Urban poverty=C =f(level of On-the-Job-Training (OJT) + household size - inheritance -residence +/- gender of household head - number of earners in the household)

In econometric terms the above relationship (the model) is now formulated using Ordinary Least Squares (OLS) where the poverty variables are continuous; not discrete.

The model;

$$Y=C=P_0+P_1X_1+P_2X_2+\epsilon$$

Where

Y=C =the dependent variable which is the overall consumption expenditure.

P_j = the coefficient of X_j

X_j = independent variables and,

ε = error/disturbance term

Specifically,

Y_i=C=Overall consumption expenditure

X_i =Level of education

X_j : Gender of household head

X_j = Level of on the job training (OJT)

X_{\gg} =Household size

X_5 =Number of earners in the household

($X_{\$}$)= Efficiency

X^{\wedge} Number of years lived in Nairobi

X_g =Remuneration

X_9 =Marital status of household head

X_{io} =Age of household head.

$X_{||}$ =Inheritance

Expenditure (C)

This is our dependent variable which is measured using consumption method and then use the determinants as independent variables described below.

X_i =Level of Education

This determinant was found to have no significance at 10% level because most workers in Matharc are small scale businessmen and as such running the businesses just needs general knowledge.

X_2 =Gender of Household Head

Female headed households are more likely to be poor than male headed households. Therefore gender is important when estimating poverty in household settings. This is a finding that has been recognized by all the authors in the literature. We found out the same in our paper.

Level of On-The-Job Training-OJT (X_3)

Due to the course content of many programs of study in Kenya's education system, suitable degrees or diplomas have been lacking meaning that for a fresh person in the labour force, extra training on the job through seminars and management trainee sessions have been requirements by employers. It means that most degrees and diplomas per se have been inadequate in securing one a good job. Only Hodgetts (1993) has mentioned this in one of the determinants he has used which is education

and training. In many cases education is mentioned alone as a determinant but here now he has cited training as important in poverty determination.

Household Size (X4)

The size of a household is inversely related to the level of poverty i.e. the probability of being poor in a small household is low while the converse is true. This view is held by most of the authors quoted and it makes sense since there are more mouths to feed in a large household meaning high dependency.

Number of Earners in the Household (X5)

The hypothesis is that as the number of earners in a household increases the level of poverty decreases. The dependency ratio is low where earners in the household are many hence reduced poverty likelihood. This is a determinant that is accepted by other researchers that already been cited.

Efficiency (X*)

It showed a weak effect in the regression and was not significant even at 10%.

Number of Years Lived in Nairobi (X7)

A fresh migrant from the rural areas is classifiable as a rural man/woman and it has been argued that residence is a determinant of poverty such that residents of rural areas are more likely to be poor than urban ones. It is expected that the longer one has been living in an urban area the less likely will they be poor. Residence has been cited by Mwabu et. al. (2000) as a determinant of poverty. We have investigated this in terms of how long one has lived in Nairobi and found that there is a significant correlation with poverty incidence as explained in Chapter Four of this paper.

Remuneration (X«)

There is an expected inverse relationship between remuneration and poverty. The more one is remunerated the less one is likely to experience poverty.

Marital Status of Household Head (X9)

The relationship in this variable is regarded as a weak determinant of poverty by Rodriguez and Smith (1994). This study also showed that marital status is an insignificant determinant of poverty at 10% level of significance..

Age of Household Head (X_{j0})

Our research showed that age of respondent effect is insignificant at 10% level.

Inheritance (X_u)

People whose parents were rich inherit wealth which protects them from poverty.

Inherited wealth is likely to be a positive step in poverty alleviation. The relationship is therefore such that those with no inheritance are likely to be poor and those with inherited property are likely to be rich or non-poor.

3.3: Data Needs

Data was collected on household characteristics (e.g. level of education, age, household size, sex of the household head, marital status, occupation, status of employment) and explanatory variables for poverty were classified as poverty related.

3.4: Data Sources

Secondary data was obtained from Kenya National Bureau of Statistics (KNBS) from its Economic Surveys and Statistical Abstracts, Ministry of Agriculture Reports, economic journals from the University libraries and information from past studies related to poverty issues. A lot of information was also obtained from the Internet. Primary data was obtained from the study site which was used to corroborate the secondary data. This primary data was collected using a questionnaire.

3.5: Study Site and Justification

The study site is Mathare Valley which is an old slum in Nairobi where even from simple observation can tell anyone that the residents are living in poverty. This is because the residential houses are made of old roofing sheets, cartons and polythene which can be afforded by almost any one. The sanitation situation is so wanting that only someone without an alternative would bear to live in such conditions. Kenya Power and Lighting Company can not supply power in unfinished houses for safety reasons. Secondly, Mathare Valley was chosen because such a large concentration of people living under the same oppressive circumstances can enlighten the researcher (on determinants of poverty) or a government expert dealing with alleviation of

poverty. One is likely to obtain similar reasons as to why these people in the slum are poor which would make a conclusive report on determinants of poverty. There is no comprehensive data on the poverty conditions in Mathare valley alone since studies in the past have only been carried out only at district level. The district here is Kasarani which houses three locations namely; Mabatini, Mlango Kubwa and Mathare. We focus on Mathare alone. This is therefore a justification of researching this zone. We used cross-sectional data obtained through a questionnaire.

3.6: Data Collection Methods.

Poverty is prevalent in developing countries in a big way and we need to document its causes to aid in its control or reduction. This research was in Mathare Valley of Nairobi City. This is because it is one of the poorest centres in Nairobi. The research was carried out by way of a survey and use of questionnaires and examination of secondary data.

Using the questionnaire, we identified a sample of a hundred households by, for example, skipping every fifteen houses from the starting point. The questionnaire was therefore administered on each 16th house until a sample of a hundred households was obtained. The data was analyzed using SPSS.

CHAPTER 4: EMPIRICAL RESULTS

Our research involved investigating the determinants of urban poverty namely; age of the respondents (household head), marital status of household head, level of education, gender of respondent, the number of times the head attended induction sessions (on the job training), efficiency, the amount of remuneration of household head, how many years he had lived in Nairobi, his/her household size, number of earners in the household, and the source of wealth.

In Table 4.1, each determinant is described in terms of its minimum, maximum and mean aspects which help in investigating whether the determinants are valid in the causation of poverty or non-poverty.

4.2 Descriptive Statistics

Table 4.1 represents the status of the variables used in our analysis. It talks of minima, maxima, the means, the sample size and the standard deviations.

Table 4.1: Variables in the Regression

Variables	N	Minimum	Maximum	Mean	Standard deviation
Age of the respondent	10	18.00	58.00	31.93	9.01
Marital status of the respondent	100	1.00	4.00	1.65	0.989
Level of education	10	1.00	3.00	2.49	0.577
Sex of the respondent	100	1.00	2.00	1.23	0.423
Number of times the household head attended courses	10	0.00	1.00	0.100	0.302
Whether he/she has been commended or rewarded for work done	100	1.00	2.00	1.66	0.476
The number of years he/she has lived in Nairobi	10	1.00	4.00	1.64	0.785
The monthly remuneration of household head.	100	1.00	2.00	1.72	0.451
Household size	10	1.00	19.00	3.96	2.403
Number of earners	100	1.00	3.00	1.46	0.576
Source of wealth	10	1.00	3.00	1.32	0.4899

From Table 4.1, it can be seen that the age of respondent ranged from 18 years to 58.

The mean age was 32 years while the standard deviation was 9.01.

The maximum level of education on the table is shown as code 3 which means that most of the respondents had secondary education and above.

Household size had a maximum figure of 19 members and the minimum was 1.

Number of earners in the households ranged from 1 to 3.

Table 4.2 shows the age and mean consumption of the respondents as well as the standard deviation

Table 4.2: Mean Consumption per Household

Age of the Respondent	Mean consumption expenditure(Kshs)	Number of respondents	Standard deviation
18	5000	1	
19	5350	3	997.45
20	4282.1	7	3004.24
21	8340	1	
22	5942	5	2734.24
23	2700	3	186.82
24	4334.7	3	3112.07
25	4656.3	4	2330.1
26	5477.7	6	2056.22
27	6345	2	3726.45
28	5661	10	2640.32
29	2355	1	
30	4445	2	3500.18
31	4000	1	
32	9872.8	5	4197.23
33	6796	4	4214.87
34	6030	7	2300.47
35	4390	3	1450.1
36	8808.4	5	2211.41
38	5494	5	2844.772
39	4295	1	
40	8322	3	6118.54
41	1794	1	
42	5233.5	4	2819.77
43	5865	2	2637.51
45	7932.7	3	2262.94
46	8164.3	4	4375.03
52	2630	2	410.12
56 -	2860	1	
58	9175	1	
Total	5871.32	100	3105.7

A mean value of consumption per household was worked out in all the households and it came to Kshs. 5871.32. This means that each of the one hundred households with different consumption levels on average spent Kshs. 5871.32 and each with its own standard deviation as shown on Table 4.2. The first column represents the ages of all the respondents. The second column shows the mean consumption expenditure in each age. The third column shows the number of people in that age and the final column depicts the standard deviation from these means. Consumption was highest at age 32 with a figure of Kshs. 9872.80 and lowest at age 41 with a figure of Kshs. 1794. At age 28 10 respondents spent Kshs. 5661.00 each. The group with the lowest standard deviation was age 23 with a figure of 186.82 and the highest was age 40 with a standard deviation of 6118.54.

Table 4.3 depicts the frequencies on marital status from our sample of a hundred households. Among the hundred, 62 were married, 21 were single, 7 were divorced and the widowed were 10. These constituted 62 percent, 21 percent, 7 percent and 10 percent of the sample respectively. This means that most of the residents of Mathare are married according to this sample. It also shows that the sample was able to reach all the different combinations of families in the area under research.

Table 4.3: Marital Status of Respondents

Marital status	Frequency	Percent	Cumulative percent
Married	62	62	62
Single	21	21	83
Divorced	7	7	90
Widowed	10	10	100
1 Total	100	100	

Table 4.4 depicts the household heads' level of education with its frequencies and percentages.

Table 4.4: Level of Education of Respondents

Level of education	Frequency	Percent	Cumulative percent
None	4	4	4
Primary	43	43	47
Secondary and above	53	53	100
Total	100	100	

As well Table 4.4 shows the education levels of the respondents in the 100 households. We found that 4 percent of the household heads representing 4 percent of the sample size had no formal education, 43 percent of the households had primary education, and 53 had secondary education and above.

Table 4.5 shows the sex of respondent, frequencies and percentages with 23 percent females and 77 percent males.

Table 4.5: Sex of Respondents

Sex of respondent	Frequency	Percent	Cumulative percent
Female	23	23	23
Male	77	77	100
Total	100	100	

Table 4.5 represents the number of females and males in the sample we surveyed whereby 23 percent were female and males were 77 percent. This shows there were more males than females. The sample that was selected suggests that in Mathare, males are more than females which means that most household heads in the area are male going by this finding. We can comment here that since life in Mathare is challenging it is possible that single ladies may not want to live there for security reasons hence the small number interviewed. It is also clear that samples may not always be fully representative of a population.

Table 4.6 represents on-the-job training frequencies and percentages from the sample.

Table 4.6: The Number of Times the Household head Attended Induction (On-

Times on job training	Frequency	Percent	Cumulative percent
None	90	90	90
Once	10	10	100
Total -	100	100	

Table 4.6 shows that 90 percent of the interviewees never received any induction in their work places while 10 percent had been inducted once. On-the-job training is seen by the authors as a boost in consumption patterns such that those that receive it also perform well and are well remunerated. This is explained in the regression results as shown in Table 4.14.

Table 4.7 shows the status of efficiency through rewards or commendation for work done.

Table 4.7: Commended or Rewarded (Efficiency)

Reward for Efficiency	Frequency	Percent	Cumulative percent
No	66	66	90
Yes	34	34	100
Total	100	100	

Table 4.7 shows that 66 percent of the respondents said that they had never been commended or rewarded in their work implying that efficiency or productivity was low among them while 34 percent of them said they had been commended. The result from the regression analysis however showed that this is not a significant measure of efficiency as has been hypothesised earlier.

Table 4.8 represents the breakdown of time spent in Nairobi by Mathare residents which is used for the purpose of getting the correlation of stay in Nairobi and poverty.

Table 4.8: Number of Years Respondent Has Lived in Nairobi

Years lived in Nairobi	Frequency	Percent	Cumulative percent
2yrs	52	52	52
4yrs	35	35	87
6yrs	10	10	97
Over 10yrs	3	3	100
Total	100	100	

Table 4.8 relates the numbers and the percentages of the sample's length of stay in Nairobi as a perceived determinant of poverty among urban dwellers. It shows that 87 percent of the urban dwellers interviewed had lived in Nairobi for up to 4 years. Those that had lived beyond 6 years were 13 percent of the sample. In our regression analysis later on, we have shown that the longer one has stayed in the urban areas the less is his probability of being poor.

Table 4.9 describes the monthly remuneration frequencies among the Mathare dwellers and the associated percentages.

Table 4.9: Monthly Remuneration of Household Head

Monthly remuneration of household head	Frequency	Percent	Cumulative percent
Below 2913	28	28	28
Above 2913	72	72	100
Total	100	100	

Table 4.9 shows that those that received a monthly remuneration of above Kshs. 2913 per month comprised 72 percent of the sample while those who received a monthly income of below Kshs. 2913 were 28 percent. This shows that 28 percent of the sample of respondents are below the poverty line while 72 percent are above the poverty line of Kshs. 2913/= per month. Although only a small number appears to be below the poverty line, (i.e. 28 people), 48 household heads are below the minimum wage in Kenya today which is Kshs. 5395 per month.

Table 4.10 shows the household size, the frequencies and percentages.

Table 4.10: Household Size

Household size	Frequency	Percent	Cumulative percent
1	11	11	11
2	13	13	13
3	25	25	49
4	15	15	64
5	19	19	83
6	7	7	90
7	7	7	97
9	1	1	98
10	1	1	99
19	1	1	100
Total	100	100	

Table 4.10 shows the numbers in each size of the household for example, households with 1 person were 11, with 2 people were 13, and those households with 3 people each were 25 and so forth. The largest household had 19 members and the smallest had 1 person. These households composed of usual families (i.e. father, mother and children), as well as numbers of people who lived in the same dwelling place. Families

with between three and five members had a total frequency of 59 out of a 100 which is a close likeness to the average household size for Kenya which was 4.4 in year 2003((Encyclopaedia Britannica, 2007)

Table 4.11 shows the number of households which have varying number of earners and percentages.

Table 4.11: Number of Earners Per Household

Number of Earners	Frequency	Percent	Cumulative percent
1	58	58	58
2	38	38	96
3	4	4	100
Total	100	100	

Table 4.11 shows the number of earners per household and the percentages of the same groups. The most frequent number of earners per family was 1 with 58 households and the least frequent number of earners was 3 with just 4 households. Therefore dependency is extremely high in Mathare. It has also been understood that an increase in number of earners in a household does not always mean that the household gets richer. Some earners get so little income that they don't prosper the household.

Table 4.12: This table represents a description of source of wealth whether purchased or inherited.

Table 4.12: Source of Wealth

Source of Wealth	Frequency	Percent	Cumulative percent
Purchase	69	69	69
Inherited	31	31	100
Total	100	100	

Table 4.12 represents sources of wealth that the people of Mathare have from a sample of a 100 households. The classification was wealth from own purchase and wealth from inheritance. This wealth comprised of plots, business stock, furniture, electronic gadgets and mechanical tools. 69 percent of these households derived their wealth from own purchases while 31 percent of them derived it from inheritance.

Table 4.13 shows the occupation of household head and the frequencies of each business.

Table 4.13: Occupation of Household Head

Occupation	Frequency	Percent	Cumulative percent
General business	63	63	63
Casual labour	22	22	85
Employed	10	10	95
Other	5	5	10

Table 4.13 shows that 63 percent of respondents in Mathare are in general business meaning retail kiosks; food kiosks, carpentry and mechanical repairs, 22 are in casual labour, 10 are in permanent employment and 5 are in other forms of work, e.g. volunteer service and preaching.

The next section shows the results from the regression analysis.

4.2: Regression Results

Table 4.14 represents the regression results of all the variables used in our research.

Table 4.14: Regression Results.

Independent variables	Beta coefficient	Standard error of Beta	SIGNIFICANCE (t statistic)
Constant	-5241.487	2230.813	0.021
Marital status (X ₉)	92.092	274.308	0.738
On the job training (X ₃)	1699.176	785.425	.033**
The number of years lived in Nairobi (X ₇)	481.887	299.744	0.111***
Source of wealth (Inheritance) (X _n)	1451.789	528.155	0.007*
Age of respondent (X ₁₀)	-7.771	32.291	0.810
Whether head has been commended or rewarded (efficiency) (X ₆)	634.487	504.384	0.212
Level of education (X ₁)	296.652	486.438	0.544
Sex of respondent (X ₂)	-992.645	561.806	0.081***
What the monthly remuneration of head is (X*)	3269.087	600.900	0.000*
¹ Household size (X ₄)	231.957	114.252	0.045**
Number of earners (X ₅)	845.61	466.752	0.073***

1 percent significance level

5 percent significance level

*** 10 percent significance level

F statistic 8.398

The regression analysis done on poverty determinants was conducted using consumption figures. We used the poverty line calculated by the Kenya Integrated Household Budget Survey (KIHBS) survey done by the (Kenya National Bureau of Statistics) KNBS in 2005. For urban areas the poverty line is given as Kshs. 2,913. The total consumption per household per month became the value that decided who was below or above the poverty line.

In the results of the regression carried out on the determinants of poverty in urban areas, it was found that the coefficient of determination, R^2 was equal to 0.512 implying that the regression plane of independent variables explain 51.2% of the total variation of consumption values while 48.8% of it is not explained and can be attributed to omitted factors and is taken care of by the error term.

Several variables were seen to determine the total consumption in the households. Determinants of poverty that were found to be significant were, on-the-job-training, the number of years one had lived in Nairobi, the source of wealth, household size, remuneration, number of earners and the sex of the respondent. Others that were however not significant at 10% level were; age of the respondent, marital status, level of education, efficiency or productivity of the respondent.

Education (X_1) which is said to be one of the major determinants of poverty showed a very weak relationship with no significance even at 10 percent as shown in Table 4:14. It is to be noted that a place like Mathare is inhabited by poor families who normally don't have jobs but kiosks such that the level of education does not determine the performance in the kiosks. If one is educated and yet runs a kiosk the difference with the less educated is insignificant.

Marital status (X_9) also showed a weak relationship with consumption and was not significant even at 10 percent. Rodriguez and Smith (1994) also found the same kind of weak relationship. Unless the number of earners in a marriage increases it seems that marriage alone may not be a determinant of poverty.

On the job training (X_3) has a significant contribution (at 10 percent) in reduction of poverty. Those that have a job and have attended some induction periods did better in their businesses or work places unlike those without induction. These results accord with those of Hodgetts et. al (1993) who found that education and training are

determinants of poverty although in this study training (induction training) is taken as a separate determinant.

The number of years one lived in Nairobi (**X7**) was highly significant as a determinant of poverty status such that the longer one had lived there the better their remuneration or consumption patterns were. Such people ended up being above the poverty line.

The variable was significant even at 10 percent. Some authors on poverty have said that just being in an urban setting determines reduction in poverty. We found that the longer one has lived in the urban areas the better off they are likely to be probably because of the long experience there and availability of employment and business opportunities.

The source of wealth (X_n) was seen to determine poverty in that those with inherited property tended to be less likely to be in poverty. If the source of wealth was one's own purchases then the individual was found to be poorer than the inheritor. The coefficient in this variable was significant at 10 percent level of significance.

The age of the respondent (X_{10}) showed a relationship that turned out to be a very weak determinant of poverty and it was not significant even at the 10 percent level.

Rodriguez and Smith (1994) also found the same. This may well have been because of other factors like inheritance and dependency which may make the young and the old well-to-do, and the middle aged person self-reliant and also above the poverty line.

Sex of respondent (X_2) had a significant negative relationship at 10 percent such that moving from code 1 representing men rising to code 2 representing women brought the level of consumption down. This result means that gender matters in the incidence of poverty such that female headed households tend to be affected by poverty more than male headed ones.

The relationship between the household size (**X4**) and consumption was found to be significant at 10 percent level such that the larger the household the more the consumption. This is due to the increased number of mouths to feed. Because there are those in these households who do not work, a large household does not mean reduced poverty. In our descriptive report it shows that 96% of respondent households had a maximum of 2 earners. Five percent had 1 and 38 percent had 2 earners only. We also found out that the largest household had 19 members and the mean size 4 (3.96). Since

borrowing, lending and gifts from the able and institutions may be involved in such households the trend however is that larger households are poorer but can get food from donors.

The number of earners (**X5**) in a household was significant in the analysis such that an increase in earners also increased consumption meaning that poverty is reduced by the increased income or increased consumption. A big number of earners normally reduces the incidence of poverty in large households. The significance is at 10 percent Monthly remuneration (X_g) is a variable that pinpointed whether the respondents were either rich or poor. The poverty line in this research is Kshs. 2913 per month.

Remuneration like consumption is an indicator of poverty levels and was therefore extremely useful in this poverty analysis. Employment and poverty are negatively related so that those that have employment are less likely to be poor and vice versa. So employment is a determinant of poverty.

Efficiency ($X6$) showed a weak effect in the regression and was not significant even at 10 percent. The weak effect is likely to have resulted from the fact that it is difficult to assess efficiency empirically even if it may insinuate that it brings financial benefits.

CHAPTER 5: RESULTS AND DISCUSSION

5.1: Results

The determinants of urban poverty according to our research turned out to be; gender of respondent, the number of times the head attended induction sessions (on the job training), the amount of remuneration of household head, how many years they had lived in Nairobi, household size, number of earners in the household, and the source of wealth. We had set out with an overall objective of identifying the determinants of poverty in urban areas with specific emphasis on Mathare. The above are therefore the determinants each of which has its own level of significance. Education, marital status, age of the respondent and efficiency were quite weak determinants and were disqualified at 10 percent level of significance even if they have weak effect in the equation regressed.

The rest were all accepted at 10 percent level of significance as shown in Table 4.14. Poverty affects the residents of Mathare because they mainly run small businesses or kiosks without much entrepreneurial capabilities. Formal education without induction sessions does not help these people since they are unskilled on the jobs. We note here that their education has not helped them much when they focus their work on small businesses. Most of their incomes are all spent on food leaving the individual almost penniless. It was noted that they also spent a lot on food. Food is a basic need in society along with shelter and clothing therefore this expenditure on food is a characteristic of those who are just managing to afford the minimum requirements for survival.

5.2: Conclusion

It is clear now that most residents in Mathare are in great need of assistance to get out of the poverty that has been devastating them for a long time. Our research therefore is justified because we have come across genuine determinants of poverty which can be tackled to fight poverty. Our findings and findings of others before us should be useful pointers as to the direction which can be taken to improve their ways of life.

5J: Policy recommendations

There is need for the policy makers to make use of the determinants of poverty highlighted in this research work to control poverty. When the stated determinants are examined they can be used to control poverty.

Since one of the determinants of poverty is poor remuneration (for wage earners), it would be advisable for policy makers to take measures to improve income distribution in the economy for example, by stopping taxation of the low wage earners and also increase their salaries more regularly. Meanwhile, those with super scale salaries could have their salaries taxed more than it is done nowadays to even help finance the salaries of the poor. However this needs to be done with care because it can affect effort or make the high salary earners be tax evaders.

Another recommendation is that of improving family planning programs which can convince the poor to avoid large families who will end up being under-nourished, poorly dressed and lack dwelling places. Currently, the available programs are not for free so if the charges could be minimized or waived it could make people dwelling in Mathare to participate in the program. One mode of disseminating information about family planning should be education through barazas to sensitize residents of importance of smaller families.

Although education has seemed less useful in the area studied, free education is highly recommended here for the children because it reduces the financial burden of the poor and also promises better opportunities for these children in future beyond Mathare.

Along with this free education, school feeding programs can complement the scheme favourably in Mathare.

It would be advisable to improve Mathare slums for the residents at rental fees that are affordable. This can improve their outlook in life since it is an improvement in social standing and can help them work productively.

Finally, a more intensive and extensive survey of poverty in Mathare and similar slums like Kibera, Mukuru kwa Njenga and other similar sections of urban areas is recommended to understand how much work is needed to fight urban poverty.

Refereaces

Aldrich, John, and Forrest (1984), *Linear Probability, Logit and Probit Models*, Sage University Paper No. 45 (Newbury,CA: Sage Publications, 1984)).

Alemayehu, G., de Jong, N., Mwangi, S.K., Mwabu, G. (2001), *Determinants of Poverty In Kenya: A Household-Level Analysis* KIPPRA Discussion Paper No.9.

Coulombe, H., McKay, A. (1996) "Modeling Determinants of Poverty in Mauritania" *World Development*, Vol.24, No.6, pp. 1015-1031.

Deaton, A (1987) "Estimation of Own and-Cross-elasticities from Household Survey Data"; *Journal of Econometrics*, Vol 36: pp. 7-30

Deaton, A (1990) "Price Elasticities from Surveys Indonesian Results", *Journal of Econometrics*, Vol 44: pp. 281-309

Foster, J., Greer, J and Thorbecke, E (1984),
"A Class of Decomposable Poverty Measures", *Econometrica*, 52: pp. 761-765

Gazouani S. and Goaid, M. (2001) Tunis. *The Determinants of Urban and Rural Poverty in Tunisia*.

Greer, J. and Thorbecke, E, (1986a), "Methodology for Measuring Food Poverty as Applied to Kenya" *Journal of Development Economics* Vol. 4, No.1, pp. 9-74.

Greer, J. and Thorbecke, E. (1986b), "Food Poverty Profile Applied to Kenyan Smallholders" *Economic Development and Cultural Change*, Vol.3, No.1.

Hazlewood, A. (1981) "Income Distribution and Poverty: An Unfashionable View" in Tony Killick ed.,
Papers on the Kenyan Economy: Performance, Problems and Policies, Nairobi: Heinemann Educational Books Ltd.

Hodgetts, R.M., Smart, T.L., and Lopus, J.S. (1993), *Addison-Wesley Economics* Menlo Park, California. Addison Wesley Publishing Company Inc.

House, W. and Killick, T. (1981), "Inequality and Poverty in a Rural Economy and the Influence of some Aspects of Policy." in Tony Killick, ed., *Papers on the Kenyan Economy: Performance, Problems and Policies*-, Nairobi: Heinemann Educational books Ltd.

Jalan, J., and Ravallion, M. (1998) *Determinants of Transient and Chronic Poverty. Evidence from Rural China*, Washington DC. The World Bank Research Development Group.

- Lee, L-F. (1983) "Generalized Econometric Models with Selectivity." *Econometrica*, Vol. 51, No 2 pp. 507-512.
- Manda, D.K., Mwangi S. K. and Mwabu, G. (2001) *A Review of Poverty and Antipoverty Initiatives in Kenya*. KIPPRA Working Paper No. 3
- Mariara, J. and Ndenge, G. (2004) Nairobi, *Measuring and Monitoring Poverty. A Case of Kenya*. University of Nairobi and Kenya National Bureau of Statistics
- Mwabu. G., Wafula, M., Gesami, R., Kirimi, J., Ndenge, G., Kiriti, T., Munene, F., Chemengich, M. and Mariara. J. (2000) *Poverty In Kenya: Profde and Determinants*, Nairobi: University of Nairobi and Ministry Of Finance and Planning.
- Myles, G. (1995). *Public Economics*. Cambridge. Cambridge University Press, pp.88-95.
- Ovugi, L.N. (2000) *The Determinants of Poverty in Kenya* Unpublished MA Thesis, Department of Economics, University of Nairobi.
- Rodriguez, A. and Smith, S. (1994), "A Comparison of Determinants of Urban, Rural and Farm Poverty in Costa Rica". *World Development*, Vol. 22, No.3, pp. 381-397.
- Shirazi, N. S. (1995), "Determinants of Poverty in Pakistan" *Pakistan Economic and Social Review* Vol XXXIII, Nos. 1 and 2, pp. 91-101.
- Republic of Kenya, (2005). *Geographic Dimensions of Well-being in Kenya. Who and Wiere are the Poor? A Constituency Level Profile*. Vol. II Nairobi: Government Printers.
- Rowntree, B.S. (1901), *Poverty: A Study of Town Llife*, London: McMillan.
- Todaro, M. (1992), *Economics for a Developing World: An Introduction to Principles, Problems and Policies for Development*, 3rd Edition.
- Wambugu N.N (2002). *Status of Poverty in Rural Kenya. A Case Study of Nyeri District*. Nairobi
- Wikipedia, *The Free Encyclopedia*. Wikimedia Foundation, Inc
- World Bank, (1997), *World Development Report*. Washington DC, World Bank,
- www.britannica.com. 2007 Encyclopaedia Britannica.
- uu w Tocusong4s.org/kenva Focus on G4S-Kenya, 2007

QUESTIONNAIRE FOR URBAN POVERTY.

Date of interview

Name of interviewer

GREETINGS!

We are conducting a research in this location and would like to conduct interviews with households to know about what determines poverty in urban areas. This information can help to find ways of eradication of poverty in such areas. The information gathered will be confidential. We kindly request for your cooperation and participation.

A. IDENTIFICATION.

1. Respondent's name.
2. Location

B. FAMILY BACKGROUND.

No.	Age of Respondent	Marital Status	Relationship to the head of the household (see code)	Level of Education	Sex (see code)	Main Occupation (see code)
	A1	1.married 2.Single 3.Divorced 4.Widow A2	A3	1.None 2.Primary 3.Secondary and above A4	1=Male 0=Female A5	A6
1						
2						
3						
4						
5						
6						
7						

Codes:

A3:1=Head,2=Spouse,3=Son,4=Daughter,5=Father,6=Mother,7=Grandchild,8=Other relative,(specify),9=No relation.

A6:1=General business;2=Casual

labour;3=employed;4=student;5=None;6=other(specify)

C: ON THE JOB TRAINING

No.	<p>Has the household Head attended any refresher courses for example. workshops induction courses. management training and others?</p> <p>Yes=1 No=0</p>	<p>How many times has he/she attended the courses?</p> <p>1=once 2=Two 3=Thrice and above</p>	<p>Was there any salary increase after the training?</p> <p>1=yes 0=No</p>	<p>Was working easier after the courses?</p> <p>1=Yes 2=No</p>
-----	--	---	--	--

D: EFFICIENCY/ PRODUCTIVITY

No	Do you always meet deadlines in your work place? (household head)	Have you been commended/or rewarded any time in your work place for work done? (household head)	Are there any letters to show for it? (household head)	Apart from being employed formally, do you have your own canteen, kiosk or any private source of income that makes your workday efficiently utilized? (household head)
1 -	1=Yes 2=No	1=Yes 2=No	1=Yes 2=No	1=Yes 2=No
2				

E: LIFE IN NAIROBI

23: Number of years lived and worked in Nairobi

2 years (Code 1)_____4 years (2)_____6 years (3)_____Over 10 years (4)

F: REMUNERATION

What is the monthly remuneration of the household head? Below Kshs. 2,913.00.

Over Kshs. 2,913.00._____Specify the amount.

G: HOUSEHOLD SIZE/NUMBER OF EARNERS IN HOUSEHOLD AND THEIR AGES

Household composition and size	No.	Working members in the household	Earnings
i) Adult males 15-60 years		1 2 3 4 5 6 7 8 9 10	
ii) Adult females 15-60 years		1 2 3 4 5 6 7 8 9 10	
iii) Children 10-15 years		1 2 3 4 5	
iv) Children below 10 years			
Total			

H: INHERITANCE/ SOURCE OF WEALTH

Out of the property that you have, how much was through inheritance and how much acquired through your working life?

Mode of acquisition	Property name	Value (Kshs)
1		
2		
3		
4		
5		
6		
Total area		

Codes for mode of acquisition:

1. Purchase 2. Inherited. 3. Given. 4. Government allocation
5. Rental 6. others.

CONSUMPTION OVER PAST ONE MONTH													
Over the past one month, did household acquire /purchase any	Item code	How much was purchased?		How much of the purchased was consumed?		How much was consumed from own		How much was consumed from own stock?		How much was consumed from gifts and other sources?		How much in total did your household consume in the past one month?	
		Yes or No		Yes or No		Yes or No		Yes or No		Yes or No		Yes or No	
		Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
CEREALS	730												
Rice	101												
Mai/a	102												
Malta Flour	103												
Wheat	104												
Wheat Hour	105												
Millet	106												
Sorghum	107												
Barley	108												
ROOTS AND TUBERS	109												
Potatoes	110												
Sweet potatoes	111												
Cassava	112												
Yams	113												
PULSES	114												
Beans	115												
Peas	116												
Ground nuts	117												
VEGETABLES	118												
Cabbages	119												
Carrots	120												
Tomatoes	121												
Spinach	122												
MEAT	123												
Beef	124												
Mutton	125												
Pork	126												
Chicken	127												
Fish	128												
Dairy products and eggs	129												
Milk	130												
Eggs	131												
OILS AND FATS	132												
Butter	133												
Cooking fat	134												
Cooking oil	135												
Margarine	136												
FRUITS	137												
Bananas	138												
Oranges	139												
Pineapples	140												
BEVERAGES	141												
Tea	142												
Coffee	143												
Drinking chocolate	144												

REGULAR NON-FOOD CONSUMPTION FOR THE PAST ONE MONTH			
Over the past one month, household acquire /purchase	Item code	How much was purchased?	How much was obtained from other sources?
		Yes or No[Yes or No f
		Quantity Cost	Quantity Cost
HOUSEHOLD OPERATION	2000		
Soap	2001		
detergents	2002		
Brooms	2003		
Laundry	2004		

NONFOOD EXPENDITURES PAST ONE MONTH			
Over the past one month, did household acquire /purchase any	tern code	How much was purchased?	How much was obtained from other sources?
		Yes or No	Yes or No
		Quantity Cost	Quantity Cost
Men's dothing	3800		
Women's clothing	3801		
children's clothing	3802		
Infants clothing	2003		
Clothing material	2004		
Mn's foot wear	2005		
Women's foot wear	2006		
Boy's footwear	2007		
Girls foot wear	2008		