

**" A PROFILE OF POVERTY IN URBAN KENYA:
A CASE STUDY OF NAIROBI "**

By

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Research paper submitted to the Department of Economics, University of Nairobi, in partial fulfillment of the requirements for the Degree of Master of Arts in Economics.

July, 1991.

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This Research Paper is my original work and has not been presented for a degree in any other University.




A. C Ofwona

This Research Paper has been submitted for examination with our approval as University supervisors.



Dr. P. Jumi



Dr. A. B. Ayako

DEDICATION

This thesis is dedicated to

My Mother

for her encouragement
and
support at all times.

ACKNOWLEDGEMENT

I wish to thank my university supervisors, Dr Jumi and Dr. Ayako for their invaluable comments, suggestions and guidance throughout the production of the paper.

I wish also to thank Prof. Mukras, Chairman of the Department of Economics for his support at all times.

In addition, I wish to express my gratitude to Moi University for the sponsorship that enabled me to undertake the M. A. degree programme. My appreciation also go to my parents for supporting my entire education. I appreciate the companionship and assistance given to me by my colleagues Tom Konyimbih and Charles Abuodha and my sisters. My special thanks go to my daughter, Eva for her patience during the writing of this thesis.

I wish to thank all members of staff of the Economics Department who have assisted directly and indirectly in the production of this paper, and my sincere gratitude go to any other parties whom I may not have named. I, however, remain solely responsible for the organization and content of this paper and any errors arising therefrom.

ABSTRACT

This study estimated the extent and depth of urban poverty as well as the socio-economic characteristics of the urban poor in Nairobi in Kenya. The study was justified in terms of yielding useful policy data for the direct benefit of the urban poor population.

The extent and depth of urban poverty in Nairobi was measured by the widely used indices including estimating the incidence of poverty and the poverty gap as well as obtaining a profile of the poor.

Estimation of the indices and socio-economic characteristics was based on secondary data from the Urban Household Budget Survey 1982/83 (Central Bureau of Statistics). The socio-economic characteristics of the urban poor covered include household size and composition, household expenditures, education of head of household, etc. Various statistical tests of significance of the difference between the socio-economic characteristics of the poor and rich urban households were conducted.

The main finding of the study was that the socio-economic characteristics of the urban poor differed from those of the non-poor. In particular, the poor urban sub-population had lower levels of education, were occupied in lower paying employment, had smaller sized households and spent larger proportions of their expenditure on food than on non-food products.

The policy implication of the findings of the study was that the poor need to be encouraged to retain their children in school for longer durations. Further policy implications

were the introduction of prevocational training, introduction of multiple shifts in industry, and stabilization of the prices of basic staple foodstuffs, to ensure that they are affordable to the poor.

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CHAPTER 1

INTRODUCTION

1.1 Background

Poverty represents a lack of basic needs. Absolute poverty involves calculating a poverty line in terms of basic necessities, below which a person is considered poor. Relative poverty is concerned with inequality in the distribution of resources.

Poverty has become a chronic problem in every developing country. In Kenya, poverty persists despite the progress made since independence. Earlier on, in the 1960's, it seemed like poverty problems were closely related to ignorance, want and lack of incomes. The government defined certain economic objectives to which it was committed, including freedom from poverty, disease and exploitation and equal opportunities for economic advancement, rising incomes fairly distributed among the people and the recognition of the dignity of every individual. A nation that did not meet the above objectives was considered to be poverty ridden and underdeveloped.¹

At independence, income inequalities were very high, especially among the different races. Poverty was seen to be highly related to inequalities in incomes and lack of opportunities. Years after independence, the government's basic objectives remain unchanged because 10 years later, according to the 3rd Development Plan (Development Plan 1975-79), the enemies to be fought were still poverty, ignorance and disease.

It is within this background that the 4th Development Plan (Development Plan 1979-83) took up poverty alleviation as its basic theme. In doing this it set out to attack the central problem of Kenya's development. In this plan, the efforts of the government was to be organized around the alleviation of poverty.

Poverty alleviation was to be achieved in four main ways, namely the creation of income earning opportunities, the improvement of expenditure patterns, the provision of other basic needs such as nutrition, healthcare, basic education, water and housing and lastly institution building. As among the four methods of attacking poverty, greatest weight was to be given to the creation of income earning opportunities. That objective was to be sought through three related and mutually supporting development efforts. These were

- (1) Capacity utilization
- (2) employment creation and
- (3) rural development.²

This plan also identified certain aspects of the economy to which poverty could be traced. Differences existed among the incomes earned and received in the different districts of Kenya. This required special effort to improve the opportunities and services available to pastoralists and others living on arid and semi-arid lands. Poverty was also traced to lack of access to employment opportunities, land, water, markets, credit, modern technological innovations, (hybrid seed, appropriate mechanization and transport and

fertilisers for e.g), power, quality education and medical care.

Five target poverty groups were identified as those requiring assistance. They were mainly

- (1) Pastoralists:- those whose income derive mainly from the care of livestock in a nomadic setting.
- (2) Small farmers:- those with land who derive the majority but usually not all, of their incomes from working the land.
- (3) Landless rural workers:- those who have little or no land and who derive the majority, perhaps all of their income from casual farm employment and non-farm rural activities.
- (4) The Urban Poor:- those who live in poverty in urban areas with limited incomes derived from casual or wage employment.
- (5) The Handicapped:- those who must be given skills commensurate with their abilities and opportunities to use those skills productively.

In Kenya, as in all developing countries, poverty is overwhelmingly a rural phenomenon. The Integrated Rural Survey (IRS) of 1977 found that 41% of families engaged in small holder agriculture - a group that represents about 80% of Kenya's total population - had incomes including subsistence production of less than 2,000 per family in the year 1974/75. Another 14% of those families had incomes in the range of

Sh. 2,000 to Sh. 3,000 per family. These incomes are not sufficient to provide the basic necessities of life.

One dimension of poverty that is important to this study is urban poverty. In urban areas it is in part due to the rush of migrants to the towns and the high expectations of town life that has contributed to the upsurge of urban poverty. There are masses of people, many unemployed, or casually employed living in temporary or illegal and often dangerous squatter settlements with poor sanitation, lack of access to clean water and leading lifestyles characterised by malnutrition and disease.

Other studies in Kenya have also obtained estimates of the poverty situation in Kenya. A study by Thorbecke which uses IRS-1 showed that approximately 40% of small holders were estimated to consume less than the recommended daily allowance of calories. Two other studies by Collier and Lal (1980), and CBS/UNICEF (1984) showed that among the poor, food consumption was significantly low and calorie intake was low judging from the products consumed. As a result, stunting and wasting, (low weight to age) were common conditions found among the poor.

International Labour Organization (ILO) report of 1972 gives an anatomy of low income, identifying those groups characteristically considered as low income groups.

(1) School leavers and increasing numbers of youth with

- secondary schooling who search fruitlessly for work in the towns;
- (2) Dependent or migrant workers, particularly male, and the plight of the families they leave behind, with women taking over agricultural tasks traditionally allocated to men, such as clearing fields, digging irrigation furrows;
 - (3) Casual labourers who rely on low incomes from casual employment.

1.2 Statement of the Problem

From the foregoing, poverty persists in Kenya despite impressive economic growth reflecting a failure in the country's past development strategies. At independence and after, poverty alleviation was a major policy goal to be achieved, indirectly, through high growth rates and the increasing expenditure by the government on social services such as education and health. Attempts to address poverty directly through the 4th Development Plan (1979-83) were abandoned with the world recession. Hence, there have been no direct poverty alleviation programs implemented in the country. Only Non-Governmental Organizations (NGOs) are implementing programs targetting specific poverty groups including women and children. The Structural Adjustment Programs (SAPs) being implemented, do not address poverty alleviation, at least, directly. While estimates of poverty groups as well as the nature of the poverty problem in the

country exists, little data exists on the socio-economic profiles of the rural and urban poor. Yet such profiles would improve our knowledge on the several dimensions of poverty such as malnutrition and inadequate access to basic services such as education, health necessary for optimal policy intervention to redress poverty in the country.

. So far constructions of the profiles have received little or no research interest. In this study, we propose to construct a profile of poverty of an urban area in Kenya.

1.3 Objectives of the Study

The broad objective of the study is to construct a socio-economic profile of the poor in an urban area in Kenya: The specific objectives of the study include the following:

- (1) to obtain an estimate of the selected urban centre poverty line and poor;
- (2) to determine the incidence and extent of poverty in the selected urban centre based on the findings in (1);
- (3) to obtain the socio-economic profile of the identified poor;
- (4) to derive possible policy implications.

1.4 Justification for the Study

Findings of the study should contribute to optimal policy intervention in addressing the problem of poverty in the country. Clearly, knowledge on the incidence and depth of poverty and a socio-economic profile of the poverty groups

should enable policy makers measure and target public programmes that directly benefit the poor population. This study can also contribute to existing literature and stimulate further research on poverty in Kenya.

1.5 Organization of the Study

The remainder of the paper is organized into four chapters. In Chapter 2 we present review of both theoretical and empirical literature on poverty. In Chapter 3 we present the study methodology covering estimation methodology and data type, and sources. In Chapter 4 we present and analyse the results of the study. In Chapter 5 we present a summary of conclusions and their policy implications.

NOTES

1. Republic of Kenya. 1965. Sessional Paper No. 10. Government Printers, Nairobi.
2. Republic of Kenya. Sixth Development Plan, 1989-1993, Government Printers, Nairobi.

CHAPTER 2

LITERATURE REVIEW

In this chapter, we shall review both theoretical and empirical literature on poverty. The theoretical literature reviewed covers that on conceptual frameworks for explaining and predicting poverty, while the empirical literature reviewed covers that on empirical measurements of extent and depth of poverty as well as socio-economic characteristics of the poor.

2.1 Theoretical Literature

Various writers have attempted to conceptualise and define poverty. Galbraith considers poverty to be a physical matter. According to him, those afflicted "... have such limited and insufficient food, such poor clothing, such crowded, cold and dirty shelter, that life is painful as well as comparatively brief".¹ Mouly and Costa (1974), say that poverty can, in general terms, be described as a condition which falls below the "minimum standard of living consistent with human dignity". World Development Report sees poverty as the inability to attain a minimal standard of living.² Oscar Lewis, a noted anthropologist in his "Culture of Poverty" describes, among other things, the characteristics and effects of poverty on the individual. He says "... on the individual, the major characteristics are a strong feeling of marginality, of helplessness or of dependence and inferiority".³

Relative poverty defines the poor as 20% or 40% of households with the least income, or in terms of the gap between a household's power over resources and those of the

average household in a given society. No assessment of the magnitude of poverty is possible from this definition. According to Townsend (1970), poverty in the relative sense could be defined on the basis of the number of households or families of certain types, having a total income of less than half or two thirds of the average.⁴ Professor Galbraith has also described poverty in the relative sense by describing those who are poverty stricken as those people whose income, even if adequate for survival, falls markedly behind that of the community.⁵

Absolute poverty represents the problem of poverty in its rawest form,⁶ as a condition where victims' lives are characterised by disease, illiteracy, malnutrition and squalor such as to deny them the basic human necessities.⁷ It means a condition in which deprivation is so severe that the basic needs of life can scarcely be met at the minimum level required for survival. Poverty can also be seen in terms of lack of basic needs.⁸ If these essential services are lacking, individuals are said to be in poverty.

Attempts to operationalize the concept of poverty visualize it in subsistence, nutritional and psychological terms. In subsistence terms, poverty is perceived as lack of income needed to acquire the minimum necessities of life. (See Rein, 1970). Hence, the poor are those who lack the necessities to sustain life. However the concept of minimum necessities, crucial to the delineation of poor and non-poor, remains controversial.

Rowntree distinguishes between primary and secondary poverty.⁹ He defines primary poverty as the minimum necessary expenditure for maintenance of merely physical health i.e. food, clothing, rent, fuel, plus essential household sundries. Secondary poverty existed when income was adequate to maintain a subsistence level, but the family failed to spend its income to purchase the necessities to sustain life and health. According to Rowntree, a defect of moral character or native intelligence rather than an insufficiency of resources distinguishes primary from secondary poverty.

In nutritional terms, Orshansky says that in order to access food poverty, sufficient quantity as well as sufficient variety of food are necessary to meet recommended nutritional goals and conform to customary eating patterns. Calories alone will not be enough.¹⁰ However food alone provides the best basis for measuring minimum requirements. The definition must be based on both customary behaviour and expert definition of nutritional adequacy.

Other writers have given various broad concepts of poverty and attempted to give causes of poverty¹¹.

Psychological poverty has been perceived by Rainwater who looked at five perspectives of the poor.¹² These views are however still the subject of a lot of unresolved controversies. He contended that the poor find themselves in the position they are in because they were meant to be in it. They suffer for their moral failings. The poor are in an environment of sin in a world where immorality is the rule. The poor are looked at as living in a sick social environment,

which leads to unhappy, disorganized lives. Their lives lack certain experiences say, that leave their children cognitively underdeveloped. They are also believed to have greater insensitivity to pain, greater ability to tolerate manual labour, less control of the emotions, etc. The poor are seen as able to endure the insult and derogation to which regular society subjects them. Other views are that the poor are deprived of the same means to participate socially in the same ways as the members of regular society.

In attempting to measure poverty, poverty and income distribution are sometimes equated. They are however neither equivalent nor mutually exclusive. Studies on inequality and income distribution give insight into low income groups in society.¹³

According to Altimir(1982), there is at present, no theoretical framework within which poverty can be satisfactorily explained in its entirety; although attempts have been made to identify a "Culture of Poverty", taking into account the whole range of symptoms that indicate its presence.

Poverty is descriptive of a social situation, so that it can only be validly studied within the setting of some theory of the distribution of income and of social inequalities in general. He adds that poverty is never more than a problem of welfare, the result of a value judgement, for which no precise slot can even be found among the propositions of the theory of welfare.

Attempts have been made to explain the persistence of massive poverty in the third world, Chenery et al.(1974), and various views put forward as to the causes. Some theories have endeavoured to explain the most extreme underdevelopment situations. However, we are still a long way from incorporating poverty into some theory.

2.2 Empirical Literature

In this section, we review the empirical literature on poverty focusing on the methodology for measuring the incidence and depth of poverty. Hence, poverty indices used in measuring poverty and results of case studies based on such indices will be presented in the section.

2.2.1 Empirical Methodology

In the literature, real household expenditure per capita has been used as the measure of individual welfare (See Kanbur, 1988). The concept of welfare is sensitive to price differences within a country and overtime.

The measurement of the incidence and depth of poverty has involved the choice and measurement of a "Poverty line" below which are the poor and above which are the non-poor (Sen 1976). In the literature, the poverty line is defined as the minimum amount of income "required" by a family of given size and structure and is calculated by a process that involves an estimate of the minimum goods and services needed and secondly pricing these.¹⁴ Actual household incomes (corresponding to different household sizes and compositions) are compared with the standard and households are classified as poor according to whether they are below the poverty line or not.¹⁵

In using the poverty line, various problems have been encountered in the literature including its arbitrary nature,¹⁶ and difficulties in obtaining an estimate of the minimum basket of goods (due to cultural preference for certain kinds of food). In general, there does not exist an objective measure of minimum nutritional requirements even for an individual country. Households within the same country may have different requirements for clothing and fuel so that regional differences in the poverty line exist. Furthermore, deficiencies of data may also make it difficult to determine whether the household is below the poverty line or not. Hence a poverty line can be seen to be on the rise or on the decline, depending on the method used, time period chosen and the available data. Cross-national comparisons using poverty lines are difficult to make. It is therefore virtually impossible to arrive at an objective calculation of this line if it is intended to express an absolute amount below which people should be expected to live. One limitation of poverty data is that it is available as a by-product of (non-repetitive) national sample surveys, and these are not poverty inquiries. (See Kanbur, 1988).

Consequently, it is recommended that studies on poverty use already established poverty lines and do sensitivity analysis for variations in these lines. Where they do not exist, various procedures could be followed for their computation. One widely used procedure is to obtain the poor as 20% or 40% of households with the least income or expenditure.¹⁷

Poverty lines have, alternatively, been obtained on the basis of the number of households or families of certain sizes having an average income or expenditure less than say half or two thirds of the average. The poverty line may be obtained to cut off a certain fraction, say, the bottom 30% or a smaller fraction, say the bottom 10% of individuals in some base period as the poverty lines. Other studies have used a given fraction of mean expenditure per capita as the poverty lines, say $2/3$ and $1/3$ of the mean per capita expenditure as the poor and very poor poverty lines.¹⁸

The count of the number of households below the poverty line is the most widely used measure of the incidence of poverty. Two measures are most widely used. The first, the measure of the "incidence of poverty" does not take account of either the degrees to which the incomes of the poor fall below the poverty line or the inequalities between households at different poverty levels. The aggregate resource gap of the poor as a group with respect to the poverty line measures the inadequacy of the incomes of the poor. The normalised version of this, the average percentage income gap does not take account of the number of the poor, nor is it sensitive to changes in inequalities among them.¹⁹

The following notation, is used in the literature to define the indices of poverty:

z = poverty line

q = number of people in poverty (i. e. with income less than or equal to z)

n = total population size

\bar{y}^p = mean income of the population

\bar{y}^s = mean income of the poor

and real expenditures or incomes are ranked as follows

$$Y_1 < Y_2 < \dots < Y < z < Y_{q+1} < \dots < Y_n \quad (2.1)$$

Given the notation, the proportion of the population in poverty is given by;

$$H = q/n \quad (2.2)$$

This measure, the incidence of poverty, simply counts the number of the poor and checks the percentage of the total population belonging to this category. This is called the head - count ratio and is a very crude index.²⁰

~~This is the total income needed to bring all the poor to the poverty line or the aggregate shortfall of income of all the poor taken together from the poverty line.~~

The poverty gap T is

$$T = \sum_{i=1}^q g_i \quad \text{where } g_i = z - y_i \quad (2.3)$$

Thus

$$T = \sum_{i=1}^q (z - y_i) \quad (2.4)$$

One measure has been put forward by Foster, Greer and Thorbecke (1984) known as the FGT measure.

Given the notation above, the FGT measure is

$$P_a = \frac{1}{n} \sum_{i=1}^q \left(\frac{z - y_i}{z} \right)^a, \quad a > 0 \quad (2.5)$$

What the measure does is that it takes the proportion shortfall of income for each poor person,

$$\left(\frac{z - y_i}{z}\right) \quad (2.6)$$

raises it to a power $a (> 0)$ to reflect concern about the depth of poverty, takes the sum of these over all poor units and normalises by the population size.

P_a takes on number of features as a varies. When $a=0$ there is no concern for the depth of poverty.

$$P_0 = \frac{q}{n} = H \quad (2.7)$$

This is simply the "Head-count ratio" - the fraction of poor units in the population.

However, with $a=1$,

$$P_1 = H_1 = H \left(\frac{z - \bar{y}^s}{z}\right) \quad (2.8)$$

where \bar{y}^s is the mean income of the poor and

$$I \left(= \frac{z - \bar{y}^s}{z} \right) \quad (2.9)$$

is known as the "income gap ratio", the average shortfall of income from the poverty line.

The Headcount ratio focuses on the number of poor but not on the extent of their poverty. While the income gap ratio focuses on the average of poverty but not on the number of poor. Sen has axiomatically derived a poverty measure that combines both of them and incorporates income inequalities among them. (See Sen, 1976).

nzp_1 is the total amount of resources required to eliminate poverty if

- (i) there are no incentive effects in transferring money
- (ii) if targetting was perfect.

When $a=2$, the measure is sensitive to redistribution among the poor, more and more weight is given to the poorest of the poor and the effect of a transfer of income from the poor to the very poor can be differentiated. An important feature of the P_a measure is that it is subgroup decomposable.²¹

It is possible to measure poverty by means of level of living indicators, which are a class within a broader category of social indicators. These are non-monetary measures of poverty²². Some of the aspects of the standard of living are access to education, literacy, numeracy, quality of education, healthcare and its quality, drinking water and basic housing amenities.

2.2.2 Case studies on Poverty

Most studies have obtained estimates of the poverty line for their respective countries, obtained poverty profiles, the incidence of poverty, the extent and depth of poverty, as well as the poverty gap, and the characteristics of poor households (See Ewusi, 1984; Collier and Lal, 1980; Altimir, 1982). In estimating the poverty line, some studies have used minimum food calorie requirements, (See Thorbecke, 1986; Kenya/CBS, 1984), while others have used percentages of the population, say the lowest 30% or a certain fraction say 1/2 or 2/3 of

the mean per capita expenditure levels to represent the poor population (See Boateng et al., 1984).

Case studies in LDC have generally obtained estimates of the poverty lines and examined economic and non-economic aspects of poverty. Sources of household income and consumption patterns with regard to poverty have been studied. Other factors such as housing conditions, schooling, health and food consumption, and their correlation with poverty have been examined. (See Visaria, 1981 and World Bank, 1979). Households at different levels have been examined as regards poverty levels. Geographical distribution and demographic influences have been considered. Some of the most recent ones are quoted here. (See Boateng et al, 1984).

Few studies exist on urban poverty, and we shall review some case studies on rural poverty which are also very useful. We shall review some of the most recent case studies on poverty, including in the discussion the poverty line, the poverty indices and the characteristics of the poor obtained.

Several studies in LDC have used the poverty indices to analyse poverty in their respective countries²³. A study in Kenya using IRS-1 survey data (1974-75) obtained an incidence of poverty of 40% among small holder households who were estimated to consume less than the recommended daily allowance of calories. The proportion ranged from 22% in Eastern province to almost 46% in Western Province.²⁴ The greater part of all food poor individuals (about 70%) were found in Eastern, Nyanza and Western Province. The severity of food deprivation was greater in Coast and Nyanza provinces.

Previous studies in Kenya have obtained estimates of the poverty line. Depending on the largely arbitrary nature of the poverty line adopted, variations will arise in the proportion of the population who are defined as suffering from poverty. Collier and Lal (1980) on the other hand using a poverty line of Kshs 2,150 estimated that less than 5% of urban households were poor in 1974. They also found in 1974 that 30% of the small holder population was poor. Using an urban poverty line of Kshs 5422 per year, Crawford and Thorbecke (1978) estimated that 25% of urban households were absolutely poor in 1976. Vandermoortele using rural and urban poverty lines of Kshs 2,269 and Kshs 3,935 per year respectively in 1976 arrived at the conclusion in between the two above and estimated that 33.1% of rural households and 15.3% of urban households had incomes below their respective poverty lines.

Vandermoortele carried out a study on small holders using 1977 data and on the urban population and found that 33.1% of smallholder households and 15.3% of urban households were below the poverty line.²⁵

Various studies have obtained estimates of those who are poor in Kenya using various nutritional indices. FAO carried out a study using food balance sheets of 1972-74 on a national basis. They obtained the result that 30% of the population were undernourished. Other studies carried out on small holders using IRS data by Crawford and Thorbecke (1978) and Collier and Lal (1980) have obtained the result using nutritional indices that 35-8% of households and 34.2% of households respectively were below the poverty line. Crawford

and Thorbecke (1980) using a food poverty line and IRS data found that 25% of smallholders were below the food poverty line. The main criterion was a recommended daily allowance of calorific intake per adult as set by WHO/FAO and modified to fit Kenyan conditions.

In Thailand²⁶ a study of poverty estimated the incidence of poverty for households belonging to different socio-economic classes, as well as for urban and rural areas, and areas of residence. The findings were that poverty was overwhelmingly a rural phenomenon and the highest incidence of poverty was among farm operators, farm workers and general workers while the lowest incidence was found among professional, technical and administrative workers.

In Malaysia, Anand (1979), carried out a study on poverty whose data source was the Post Enumeration Survey (PES) of the 1970 census covering a sample of about 25,000 households in Peninsular Malaysia. He estimated a poverty line and various indices of poverty, ranging from the simple index of poverty measure to others that take account of the poverty gap. Another study on poverty carried out in Malaysia²⁷ obtained an urban incidence of poverty in 1973 of 9.7% and of 37.5% for all areas.

In his study on the extent of poverty in Latin America, Altimir (1982) estimated the poverty lines for each country, the extent of poverty and the poverty gaps. He found that urban poverty extended to more than one-third of urban households in some countries (Brazil, Colombia, Honduras), while affecting between 20% and 30% in others (Peru, Mexico,

Venezuela), about 15% in Costa Rica and Chile and less than 10% in Argentina and Uruguay.

Boateng et. al.(1990), carried out a study on poverty in Ghana using the Ghana Living Standards Survey and a sample size of 3,200 households across approximately 200 enumeration areas stratified by urban/rural and by ecological zones. The poverty lines chosen were $\frac{2}{3}$ of the mean per capita expenditure levels to represent the poverty group and $\frac{1}{3}$ of the mean per capita expenditure to represent the hard core poverty group, obtaining estimates of 32,981 and 16,491 cedis in constant prices per person per annum, respectively. They obtained statistical measures of the deciles of the distribution of individuals by per capita household expenditure and computed the incidence and depth of poverty.

Profiles of the poor have also been obtained in various countries. Here we review some of the studies. According to Collier and Lal (1980), the poor were seen to have less land, lower non-farm incomes, lower education levels, lower subsistence consumption as well as lower levels of on-farm innovation than the smallholder average. They obtained characteristics of the poor, by using data obtained in the Integrated Rural Survey (IRS-1) and presented tabulations of the information. Basically their findings were that food consumption was significantly low and calorie intake was also low judging from the products consumed. They found a correlation between land, assets, consumption, nutrition and expenditures, and the income levels of those classified as poor.

In Thailand, with regard to demographic characteristics, households with lower levels of per capita consumption have higher average household sizes and younger heads; they are more likely to be of very large sizes, with eight or more members. Children in poor households are much less likely to attend school than children from richer households and female children less than males. The poor in general, have less access to social services.

The study in Malaysia obtained, a significant (at 1% level) negative association between per capita expenditure and average household size, dependency ratio, percentage of females among household heads, formal schooling for males and females and the incidence of unemployment for females. They obtained a significant positive association between the labor force participation rates for females, the percentage of females in the population and the incidence of unemployment for males.

Ewusi²⁸ found that considering rural and urban regions together, education and occupational status are negatively correlated with poverty, while size of households is positively related. Illiterate heads of households have higher poverty rates than literate heads of households. Farmers tend to have higher rates of poverty than small sized households. The only slightly unexpected result was that the incidence of poverty is slightly higher in households headed by males than those headed by females.

In Indonesia²⁹, a study on poverty found, in summary, that in urban areas (as well as rural areas) of the Outer

Islands, households headed by women are more likely to be poor than those headed by men. The level of educational attainment is considerably lower in rural compared with urban areas, with heads of poor households having less education as do their household members. A small proportion of their children attend school beyond the primary level. The poor are more likely to be looking for work than those who are not poor. For both urban and rural areas the results were that each member of the labour force in a poor household has more dependents to support on average than one from a better off or rich household. The poor are found to spend a much larger share of their total budget of food (such as carbohydrates and less on protein like fish, meat and eggs), and smaller shares on other categories of consumption, related to schooling and health. The poor have inferior living conditions, in housing structure and amenities such as the availability of water and electricity and do not receive health care of as good quality as the other group.

Other studies have used different methodology such as a study in Kenya which used non-monetary measures of poverty, and in Malaysia regression analysis was used. The study in Kenya by CBS and UNICEF (1984) incomes of 40% were too low to provide adequate nutrition from the most basic diets. Other findings were that there was undernutrition, stunting and wasting. Stunting prevalences had been increasing from 24% to 28% among pre-school children in 1982. The deterioration was most dramatic in Western Province, where the proportion of stunting has increased from 16% to 30%. Poverty is associated

with many of these conditions. Malnutrition was found to be more pronounced in households with land holdings of less than 1.5 hectares, and the proportion of such households is growing in Western and Nyanza provinces. The same study has shown that the nutritional situation is far from satisfactory. Maize, cassava and pulses are the main dietary sources of calories (and protein) although per capita protein availability (from maize, millet, beef, fish, pulses etc.) was estimated at 79.3 grammes per day in 1981, substantially above the FAO/WHO allowances of 46.0 grammes.

In Malaysia, they used a different methodology from that adopted in this study, obtaining correlation and regression coefficients showing the association between various characteristics and the average per capita expenditure of households in different deciles. In Peru a simple linear regression framework was adopted³⁰.

2.3 Overview of the Literature

The LDC that have adopted poverty line measures, calculated as a proportion of the per capita consumption expenditure of the population are Cote d'Ivoire and Peru, where the lowest 30% of the population, by the per capita consumption expenditure, are classified as the poor and the lowest 10% as the poorest. In Indonesia, the poor are classified as the lowest 40% of the population, by the per capita consumption expenditure levels, while in Ghana, two thirds of the mean per capita expenditure represents the poor, and one third of the per capita expenditure represents the

very poor group. This technique will also be adopted in this study in obtaining a measure of the poverty line for Kenya.

The case studies mentioned have obtained, using various techniques including obtaining correlation and regression coefficients, profiles of poverty for their various countries. They have also obtained proportions of households below a poverty line according to per capita consumption expenditure levels and the characteristics of these households. They have also obtained estimates of basic needs indicators such as health, education, and other variables such as by rural/urban region, sex of head of household, size of household, status and whether head of household is in agricultural or non agricultural activities. Like past studies this study will obtain the incidence and depth of poverty, and basic needs indicators for poor urban households according to estimated poverty lines.

NOTES

1. See Winter, A. ed. 1971. "The Poor: A Culture of Poverty or a Poverty of Culture". William B. Eerdmans Publisher.
2. World Development Report, 1990. The World Bank. Washington D. C.
3. See Winter, A. ed. 1971.
4. Townsend. 1970. "The Concept of Poverty". Heinemann
5. See Sandbrook, R. 1982. "Urban Aspects of Assaulting Poverty in Africa". Heinemann.
6. Chambers, R. 1981. "Rural Poverty Unperceived: Problems and Remedies". World Development, Vol. 9, No. 1.
7. Sandbrook, R. 1982. "Urban Aspects of Assaulting Poverty in Africa". Heinemann.
8. Basic needs were defined by the ILO World Employment Conference in 1976, (See ILO, 1976), as including:

"First, certain minimum requirements of a family for private consumption, adequate food, shelter and clothing as well as certain household equipment and furniture. Second, essential services provided for and by the community at large, such as safe drinking water, sanitation, public transport, health and educational facilities."

To these concrete basic needs the conference added participation of the people in making decisions which affect them, basic human rights, and employment as a means to an end.

9. Townsend. 1970. "The Concept of Poverty".
10. Ibid. p. 52.
11. See Rein, (1970), and Galbraith, (1979).
12. Allen, V. L. ed. 1970. "Psychological Factors in Poverty". Markham, Chicago.
13. See Vandermoortele (1986), Crawford and Thorbecke (1978), International Labour Organization (1972), Kaplinsky (1978).
14. See Rowentree (1901), Weisbrod (1965), Townsend (1954) and Atkinson (1970).

15. Scott. 1981. "Concept and Measurement of Poverty". United Nations Research Institute for Social Development. Geneva.
16. Ibid.
17. Kanbur. 1987. "Poverty: Measurement, Alleviation and the Impact of Macroeconomic Adjustment". International Monetary Fund Staff Papers, Vol. 34, No. 1. Washington D. C.
18. Ibid.
19. Altimir, O. 1982. "The Extent of Poverty in Latin America". World Bank Staff Working Paper No. 522. World Bank, Washington D. C.
20. Sen, A. K. March 1976. "Poverty: An Ordinal Approach to Measurement", *Econometrica*, Vol. 44, No. 2.
21. If we divide the population into mutually exclusive and exhaustive groups indexed by j , and $P_{a,j}$ is the poverty in the j th group then,

$$P_a = \sum_{j=1}^m X_j P_{a,j}$$

where X_j is the proportion of total population in group j the above expression is useful since we can assign the "contribution" of poverty in group j to national poverty as

$$C_j = \frac{X_j P_{a,j}}{P_a}$$

Such a decomposition of national poverty into regional occupation, crop production, or sectoral groups can help in developing a profile for the country in question.

22. Drewnowski (1974)
23. See Appendix A for the incidences of poverty in selected LDC.
24. Thorbecke. 1986. "Food Poverty and Consumption Patterns in Kenya". International Labour Organization. Geneva.
25. Thorbecke. 1986. "Food Poverty and Consumption Patterns in Kenya". International Labour Organization. Geneva.
26. See World Bank. Nov. 1979. "Income. Consumption and Poverty in Thailand, 1962/63 to 1975/76". World Bank Staff Working Paper No. 364. World Bank. Washington D. C.

The socioeconomic survey, upon which this study was based, was carried out in 1975/6 in Thailand. The poverty line was set for 1975/6 at 1,981 baht/person/year in rural and at 2,961 baht/person/year in urban areas.

27. See Visaria, P. May 1981. "Incidence of Poverty and The Characteristics of The Poor in Peninsular Malaysia, 1973". World Bank Staff Working Paper No. 460. The World Bank, Washington D. C.

The household and income survey, upon which this study is based, was carried out during 1973, on 7,500 households. The poverty line adopted was set at an annual per capita income of US\$ 265 in 1975.

28. See Boateng et al. (1984).
29. The study uses data from the socioeconomic survey for 1978 (SUSENAS 1978) in which over 6000 households were interviewed in their two rounds. The poverty line was set at the lowest 40% of the population ranked by their household level of per capita consumption.
30. See Rosenhouse, S. World Bank Staff Working Paper No. 58. The World Bank, Washington D. C.

CHAPTER 3

METHODOLOGY

This chapter will give the estimates of various indices of poverty as well as the estimation of the basic needs indicators of the poor.

3.1 Estimation of the Indices of Poverty

This study obtained estimates of the poverty line. The poverty line was obtained as less than 2/3 and less than 1/3 of the mean per capita expenditure (PCE) to represent the poor and very poor respectively.

It also obtained measures of the incidence of poverty i.e. the proportion of the poor given by the formula (2.2) in chapter 2 and the depth of poverty given by formula (2.8) in chapter 2. The study also calculated nzp_1 , the total resources required to eliminate poverty.

3.2 Estimation of Basic Needs Indicators

Using the estimated poverty lines, we categorised our sample according to the poor, very poor and non-poor. The socio-economic profile of each sub-sample were analysed in terms of occupation, education, food and non-food consumption and household size. Frequencies and summary of statistics of the socio-economic variables of each sub-sample were computed and presented in tabular form. A statistical test of the difference between the means of the education and size of household levels for the poor and non-poor categories, and between those of the very poor and the poor were conducted.

We also conducted a X^2 test to determine the association between the variables. We carried out the test at $p=0.05$ level

of significance, which reflects a compromise between the danger of wrongly concluding that a true relationship exists (i.e. rejecting the null). The requirement for the χ^2 test is that selection of each observation is done in a random probability manner from the population at large (unrestricted sampling). In our case, a multi-stage sampling design was used in selecting the sample members and so each member was not selected from the population at large. However since each member was selected in a probability manner, the relaxation of the requirement is a minor one.

3.2 Data Type and Sources

The source of data used in the study is the ^{1998/94}~~1982/83~~ Urban Household Budget Survey (UHBS). The UHBS was part of the National Sample Survey and Evaluation Programme. The UHBS provides household based data on district level basis. The data is organized into the core and supplementary modules. The core module contains information on the household's basic socio-economic characteristics (i.e. household composition, expenditure, sources of income, age, household structure, education levels and school attendance, geographical mobility and wage employment); while the supplementary modules contain information on housing dwellings, social amenities and on recent and planned moves.

Collection of data was based on a multi-stage sampling design consisting of 60 clusters covering many low income areas of Nairobi.¹ This study uses data for Nairobi area, totalling 588 households. The subset of variables used in the study include occupation and education of head of household;

household size; expenditures on food products such as, meat and fish products, fruits and vegetables, pulses and root crops; and expenditures on non-food items such as durable goods and education.

NOTES

1. See Central Bureau of Statistics. "The National Survey and Evaluation Programme, Urban Areas, 1980/84"

CHAPTER FOUR

ANALYSIS OF EMPIRICAL RESULTS

This chapter analyses the empirical results giving the estimates of the poverty line, the indices of poverty and the basic needs indicators obtained.

4.1 Indices of Poverty in Nairobi

The mean per capita household expenditure (PCHE) for our sample was estimated at 1821.06 Shillings per month. Hence the poverty lines for the poor and very poor are $2/3$ and $1/3$ of the mean PCHE, which comes to 1214 Shillings and 607 Shillings per person per month, respectively.

From Table 4.1 the incidence of poverty (the P_0 measure) is 55.4%. Thus 55% of those in Nairobi live in households with per capita consumption levels less than $2/3$ of the mean. The P_1 index is 0.2443. This is interpreted as the poverty gap from the section on poverty indices in chapter 2. This means the redistribution of whatever additional resources that would be required to eliminate poverty. If the resources are not at the economy's disposal, then some other remedy would be required in the short to medium term.

This means that to fill up the poverty gap and to ensure that there was no poverty would require 297 Shillings per month per person (0.2443 * 1214) which is (P_1 measure * the poverty line). This is 16.3% of the mean PCHE.

If the total population of Nairobi was 1 million in 1982/83, then the total poverty gap would come to 297 million Shillings per month. This means that 297 Shillings per month is the minimum resources required to eliminate poverty

assuming that targetting was perfect and there are no "leakages".

TABLE 4.1

POVERTY INDICES FOR POVERTY GROUPS

IN NAIROBI

	Total Pop. (in millions)	Mean PCHE	Incidence of poverty	Poverty Gap
Poor	2	1821.06	0.5539	0.2443
Very Poor	2	1821.06	0.2356	0.0707

The results of the incidence of the very poor, using the lower poverty line of 607 Shillings per month is summarised in Table 4.1. With this line, 23.6% of those in Nairobi are classified as poor i.e. the incidence of poverty. Thus about 24% of those in Nairobi live in households with per capita consumption levels less than 1/3 of the mean. The P_1 measure is 0.0707. Therefore the minimum resources required to eliminate poverty is 42.92 ($0.0707 * 607$) which is 42.92 million shillings per month. This is 14.5% of what is required with the higher poverty line.

4.2 Profile of the Nairobi Poor.

The socio-economic profile of the Nairobi poor was characterised by the occupation and education level attained by the head of household; household size; food and non-food expenditures.

4.2.1 Education Levels of Heads of Household in Nairobi

The educational status of the poor household heads is summarised in table 4.2 below. The education status of the very poor and poor in Nairobi appear very similar. Their respective average educational levels attained were 6.77 and 6.85 years of schooling with that of the non-poor being 9.89 years of schooling. About 10% among the very poor and 10% among the poor did not attend any school, implying that the majority of the very poor were at least literate.

TABLE 4.2

EDUCATION LEVELS OF HEAD OF HOUSEHOLD IN NAIROBI

Education Level	Very Poor	Poor	Non- Poor (Percentages)	Total
No Schooling	9.52	10.50	5.95	8.42
Standard 1-4	13.10	16.00	6.55	11.69
Standard 5-7	45.23	33.00	19.64	26.90
Form 1-2	5.95	13.00	8.93	11.14
Form 3-4	13.10	12.50	7.74	10.33
Form 5-6	13.10	14.00	28.57	20.65
University	0.00	1.00	22.62	10.87
Total	100	100	100	100

About 13% of these had upto Standard 4 level of education while 45% of them had between Standard 5 and Standard 7 level of education. The very poor seem to have a very small occurrence 32% of secondary and high school education as compared with 58% of primary education. These comprise of 6% having attained Form 1-2 education and 13% Form 3-4 level

education. An equal percentage 13% have attained Form 5-6 level education. There was no occurrence in the sample of university level education among the very poor. About 58% of the very poor have education levels of at least Std. 1-7.

Among the poor in general, the pattern is a slightly similar one with 11% in the sample having no years of schooling at all, 16% Standard 1 -4, 33% Standard 5 - 7 and 13% Form 1 - 2 level education. An equal number, 13% have secondary level education of Form 3-4, 14% 'A' level and 1% university education. Those with primary education among the poor are 49%, slightly less than for the very poor who are 58%. There is however a higher percentage 40% with secondary and high school education among the poor as compared to 32% among the very poor. However these patterns are very similar and we can say that the access to education among the very poor and the poor are affected by factors that are not very different.

Among the non-poor the pattern is different with 6% not having attended school suggesting that the poor have lower levels of education than the non-poor; 7% primary level education upto Standard 4 and 20% Std 5-7 level education, as compared with 45% among the very poor and 33% among the poor. 26% among the non-poor have primary level education as compared to 58% of the very poor and 49% of the poor. When we consider the higher levels of education, namely secondary and university level education, we find that 9% have Form 1-2 level education, while about 8% have form 3-4 level education.

Among the non-poor, we notice higher levels of educational attainment than among the non-poor. Those heads of households with Form 5-6 level education were 29% of our sample and university level education were 23%, the highest among all the groups. In total we have over half, 51% of the heads of households in non-poor households having 'A' level or university level education.

Clearly a pattern emerges. The non-poor have access to education that enables them to attain much higher levels of education than the poor. This could be attributed to income as well as social factors. The non-poor have means at their disposal that enable them to ensure their access to education is not hampered in any way. Among the total population the pattern is not very different from that of the non-poor. Those with no years of schooling being 8%, 39% primary, 42% secondary and high school and 11% university education. Poor heads of households with low levels of education are in turn likely to have their children attaining low levels of education. It seems like among the poor a number of factors may affect their access to education. Among these are the fact that the non-poor may have better access to educational facilities in terms of the geographical location of schools, tending to be in better off areas of the town. In addition, the cost of sending children to school may not match the perceived benefits among the poor and they are more likely to engage children in other chores and the poor households may not have social conditions of living conducive to the educational success of their children.

Before concluding our analysis on education levels having formulated the null hypothesis of no difference between mean levels of education for the very poor and the poor, we found that we could not reject the null hypothesis. We obtained the calculated t- value of 0.148969 and the critical t-value of 1.96. The mean education levels were 6.77 for the very poor and 6.85 for the poor. The variances obtained were 13.44 for the very poor and 15.39924 for the poor. Therefore, we found that we do not reject H_0 and conclude that the mean education levels of the very poor and the poor are not significantly different at the 5% level.

We used a similar procedure to formulate the null hypothesis of no difference between mean education levels of the poor and non-poor obtaining a calculated t-value of 0.5504. The means and variances are 6.85 and 15.39924, and 10 and 20.546, for the poor and non-poor respectively. We could not reject the null hypothesis and we conclude that the mean education levels of the poor and the non-poor are not significantly different from each other at the 5% level. We notice that the variances obtained are high, thereby reducing the accuracy of the results.

Considering the poor and the non-poor and having formulated our null hypothesis that no relationship exists between the education levels of the two groups, the computed χ^2 value is 67.2869 and the critical value was 12.592. We conclude that we cannot reject the null hypothesis. Therefore the relationship is not due to sampling variation.

4.2.2 Household Size

The Table 4.3 gives the distribution of household size for the four groups given in terms of the number of members. The very poor seem to have a high occurrence of single 31% and 2-3 member households 45%.

TABLE 4.3

HOUSEHOLD SIZE IN NAIROBI

Household Size (Number of Members)	Very Poor	(Percentages)		
		Poor	Non-Poor	Total
1	30.95	23.50	11.77	18.10
2-3	45.24	35.50	20.59	28.65
4-5	15.48	21.50	28.23	24.60
6-7	5.95	11.00	21.76	15.95
8+	2.38	8.50	17.65	12.70
Total	100	100	100	100

This finding is very similar to that in most developing countries and seems to suggest that the more members of households there are who are non-dependent on the head, the better off that household is. There are fewer large sized households numbers among the very poor, 4-5 member households being 16% and larger household sizes 6-7 and above 8 members, totalling 8%. The largest household size in the sample was 24 members.

Among the poor the pattern is very similar to that of the very poor. Single member households were 24% and 2-3 member households were 36% totalling 60% of the sample belonging to less than 3 member households. The larger household sizes, above 6 members, were 20% of the households.

Among the non-poor the pattern is different with single and 2-3 member households being 32%, 4-5 member households 28% and larger size households, above 6, members 39%. The average household sizes were 3, 4 and 5 members for the very poor, poor and non-poor respectively.

We also carried out here a one tailed t-test to determine whether the means of the groups were significantly different for household sizes for the very poor and the poor. The calculated t- value was 0.1772118, while the means and variances were 2.64 and 6.520941, and 3.48 and 15.9475, for the very poor and the poor respectively. Therefore, we could not reject the null hypothesis and we conclude that the mean household size levels of the very poor and the poor are not significantly different at the 5% level.

We used a similar procedure to formulate the null hypothesis of no difference between mean levels for poor and non-poor households obtaining a calculated t-value of 0.25023, and mean and variance of 5.06 and 23.921 for the non-poor. We could not reject the null hypothesis and we conclude that the mean household size levels of the poor and the non-poor are not significantly different at the 5% level.

Considering the poor and the non-poor and the household sizes, the computed χ^2 value was 28.5733 while the critical value was 9.488. We conclude considering that we cannot reject the null hypothesis, that the relationship is not due to sampling variation.

4.2.3 Occupation Categories

We need to study the occupation categories to determine the occupational status of the poor. The occupation categories obtained are given in table 4.4.

TABLE 4.4

OCCUPATION LEVELS OF HEAD OF HOUSEHOLD IN NAIROBI

Occupation Categories	Very Poor	Poor	Non-Poor	Total
	(Percentages)			
Professional/Technical	1.38	2.18	11.4	5.54
Administration/Management	11.03	10.91	19.62	14.01
Services	24.83	20.00	13.92	17.78
Sales/Industry/Maintenance	32.41	29.46	26.58	28.41
Other Workers	24.83	28.36	22.15	26.10
Not Working	5.52	9.09	6.33	8.08
Total	100	100	100	100

Very few of the very poor are occupied in high income (white collar) employment with only about 1% being employed in professional/technical occupations and about 11% in administration and management; the majority (57.24%) being employed in services and industry/maintenance and sales. Only about 5.52% of the very poor stay and work at home, especially housewives or are unemployed.

About 13% of the poor were characterized as white collar workers. Again the majority of the poor (50%) were engaged in services, sales, industry and maintenance occupations. Those in other occupations and the unemployed were 28% and 9% respectively.

The pattern of occupational distribution among the non-poor was slightly different from that of the poor with a

higher number 31% in the white collar professions, 45% in services, sales, industry and maintenance, 22% in other occupations and 6% unoccupied.

4.2.4 Food and Non-Food Expenditure Patterns

Table 4.5a presents the average monthly expenditure on food and non-food products by the poor and non-poor. There appear a striking difference between the expenditure patterns of the poor and the non-poor with the poor allocating larger shares of their expenditure to food and the non-poor to non-food items.

TABLE 4.5a

AVERAGE FOOD AND NON-FOOD EXPENDITURE FOR POOR HOUSEHOLDS
IN NAIROBI

	Poor %	Non-poor %
Food	52.23	23.89
Non-Food	46.77	76.11
Total	100	100

Specifically the poor allocate 53.2% of their expenditure to food and 46.7% to non-food items. The very poor also show a similar pattern of expenditure. (See Table 4.5b below) with 57.2% of their expenditure being on food while that of others on food is 28.4%.

We shall consider food expenditure patterns among the poverty groups. Among the very poor, it is noticed that poor households choose to allocate a part of their food budget on tastier more expensive items.

TABLE 4.5b

AVERAGE FOOD AND NON-FOOD EXPENDITURE FOR VERY POORHOUSEHOLDS IN NAIROBI

	Very Poor %	Others %
Food	57.15	28.36
Non-Food	42.85	71.64
Total	100	100

Thorbecke (1986) obtained a similar result. A high proportion of food expenditure is spent on dairy products, meat, vegetables and fruits. Considering table 4.6a we see that the very poor spend a high average expenditure on meat and fish products which could be a result of the high cost of these food items Shs 63.70. They spend a relatively smaller average expenditure of Shs 20.68 on milk and milk products, with fruits taking up a very small share of their food expenditure, Shs. 4.30, while vegetables take up larger share Shs. 18.98.

The very poor seem to allocate a certain proportion of their budget to ensure that they obtain some expensive delicacies. Thorbecke (1986) found that income elasticities were significantly higher with regard to food expenditure than calories. This indicated that a strong demand by smallholders prevails for tasty and palatable foodstuffs in contrast to calories per se, even at very low income. A similar trend is noticed here.

Table 4.6b shows that among the poor the pattern is slightly different. The poor allocate a smaller share of their expenditure Shs. 29.97 on meat and fish products and an almost similar amount Shs. 29.15 on milk and milk products suggesting that the poor allocate their food expenditure at least to ensure that they obtain access to these more highly priced items.

TABLE 4.6a

AVERAGE EXPENDITURE ON CATEGORIES OF FOOD FOR VERY POOR HOUSEHOLDS IN NAIROBI

	Meat and Fish Products	Milk and Milk Products	Pulses and Root Crops	Fruits	Vegetables
Very Poor	63.70	20.68	7.87	4.30	18.98
Others	67.88	61.18	24.22	14.38	47.91

TABLE 4.6b

AVERAGE EXPENDITURE ON CATEGORIES OF FOOD FOR POOR HOUSEHOLDS IN NAIROBI

	Meat and Fish Products	Milk and Milk Products	Pulses and Root Crop	Fruits	Vegetables
Poor	29.97	29.15	12.91	6.20	27.10
Non-Poor	141.34	76.80	28.12	19.04	55.26

The poor allocate larger shares of their expenditure on the food items such as pulses, root crops, Shs 12.91, and more on fruits and vegetables, Shs 6.20 and Shs 27.10 respectively. When these figures are compared, we see that the poor spend shs 6.20 on average on fruits as compared to Shs 4.30 spent

by the very poor and Shs. 27.10 on vegetables as compared to Shs 18.98 spent by the very poor.

The pattern suggests that the poor considering that they are slightly better off than the very poor, allocate their expenditure so as to spend more on each category of food, suggesting that the very poor may not have satisfied their food needs in the first place. The non-poor allocate the highest average expenditure on all these food items, their highest expenditure category being on meat and fish products, again reflecting both the high cost of such food items and the fact that the non-poor spend more on such foods than the poor or the very poor.

Their average expenditure on milk and milk products is Shs. 76.80 compared to the poor, Shs. 29.15, and very poor, Shs. 20.68. This shows us that the low income groups, will not allocate as high a proportion of their expenditure to dairy products preferring to substitute for it in other products, such as ensuring that they obtain meat and fish. They allocate a larger share on pulses and root crops, Shs 28.12 and a higher proportion, Shs. 19.04, on fruits as compared to Shs. 4.30 for the very poor and Shs 6.20 for the poor and Shs 55.26 on vegetables as compared to Shs 27.10 and Shs 18.98 for the poor and very poor respectively. The highest expenditure of all the categories on vegetables than on fruits reflects the lower price of vegetables than fruits and its more essential nature.

In general it seems that higher income levels determine the pattern of food expenditure. Thorbecke(1986) obtained a

similar result. He found that the most important explanatory variable affecting pattern of food consumption and poverty among smallholders was income. They also found in general, high income elasticities of demand for calories and food expenditure particularly at the poverty level.

We will consider non-food expenditure. In general we see that all the groups the very poor, poor and the non-poor, seem to spend the highest proportion of their non-food expenditure on durable goods as given in Table 4.7a and 4.7b below.

TABLE 4.7a

AVERAGE EXPENDITURE ON NON-FOOD ITEMS FOR POOR HOUSEHOLDS

IN NAIROBI

	Durable Goods	Services	School Expenditure
Poor	222.59	81.65	93.60
Non-Poor	2390.85	437.96	295.72

TABLE 4.7b

AVERAGE EXPENDITURE ON NON-FOOD ITEMS FOR VERY POOR HOUSEHOLDS

IN NAIROBI

	Durable Goods	Services Expenditure	School Goods
Very Poor	110.49	55.08	81.15
Others	1501.95	294.06	225.71

The very poor spend on average Shs 110.49 while the poor spend Shs. 222.59 on durable goods while the poor allocate a much larger expenditure, Shs 2390.85. The difference is very large indicating that higher income would result in households allocating a larger share to durable goods. The non poor

allocate more than 21 times as much expenditure to durable goods than the very poor, and they allocate more than 10 times that of the poor group.

The expenditure allocated to services is similarly different for the different categories with the average expenditure of the non-poor being Shs. 437.96, more than five times that of the poor which is Shs 81.65, and about 8 times that of the very poor Shs 55.08. These patterns suggest that having lower income the poorer groups are denied access to certain services whereas the non-poor, having higher incomes can allocate larger shares of their budget to non-food expenditures. The non-poor are again able to spend much more on education Shs. 295.72, more the 3 times that spent by the very poor Shs. 81.15 and Shs 93.6 spent by the poor ensuring them access to this essential service.

CHAPTER 5

SUMMARY OF CONCLUSIONS AND POLICY IMPLICATIONS

This chapter gives the summary of the conclusions as well as policy implications that have been drawn. It also presents the limitations of the study and suggestions for future improvement.

5.1 Summary of Conclusions

Several principal conclusions could be drawn from this study.

The results of the paper suggest that poverty is a serious problem with 55.4% of the population of Nairobi poor and the minimum amount required to eliminate poverty coming to 297 million shillings per month for the whole population. 23.6% of the population of Nairobi are very poor and the minimum resources required to eliminate poverty would come to 42.92 million shillings per month for the whole population.

Considering socio-economic characteristics, the poor have lower levels of education than the non-poor. They both have mean education levels of standard 7 and on the whole do not seem to attain the higher levels of education while the non-poor have an average education level of Form 3 and they attain the highest levels of education including the largest occurrence of university education holders.

Other studies obtained similar results, such as Collier and Lal (1980) and Ewusi (1984), finding lower levels of education among poor households. Studies carried out by the World Bank in Indonesia and Malaysia found that children in poor households did not go beyond primary school and a

negative correlation existed between per capita expenditure and formal schooling among the poor.

The poor and very poor seem to have small sized, 1-3 member households. This was a surprising result with the average household sizes being 3, 4 and 5 members among the very poor, poor and non-poor respectively. This is the only result that differs from that obtained by most other studies on characteristics of the poor. In studies carried out by the World Bank in Malaysia and Thailand, poor households were usually large comprising of more than 8 members. (See also Ewusi, 1984).

The poor are found in lower paying occupations and those in white collar occupations such as management were very few. The non-poor however, have access to higher paying occupations. The poor in other countries are also seen to have low occupational status, such as in Ewusi(1984). In studies in Indonesia and in Malaysia, the poor were more likely to be unemployed and looking for work.

The poor allocate larger proportions of their expenditure to food than to non-food products. This pattern is different among the non-poor who allocate higher proportions of their expenditure to non-food than to food products. The very poor allocate a high average expenditure on food products such as meat and milk products and relatively less on fruits with a similar pattern among the poor. The poor however allocate larger proportions of their expenditure on food items such as pulses and root crop. The non poor are in a better position and are able to allocate the highest expenditure on all food

products, including fruits and vegetables. The poor and the very poor allocate the highest non-food expenditure to durable goods and less to services and educational expenses. The non-poor are, as expected, able to allocate the highest expenditure to all these categories. Thorbecke (1986) obtained very similar result as discussed in Chapter 4. Kenya CBS/UNICEF (1984) also found that the nutritional situation of the poor was far from satisfactory.

5.2 Policy Implications

Several policies interventions to improve the welfare of the urban poor are implied by the above conclusions of the study.

Poverty exists and is a very serious problem and it is therefore necessary to have poverty programs that will address the issue of poverty and to have deliberate policies aimed at the urban poor to improve their access to basic needs.

The education levels of the poor are inferior to those of the non-poor and this obviously has an effect on the quality of education and the use to which they put it later on. Pre-school education can be of benefit to the poor as pre-school years can serve as a foundation to education. Since the poor terminate their education at low levels, primary education should be made a terminal form of education by introducing pre-vocational subjects which would assist those who do not go to secondary school to enter into further vocational training or engage in self-employment. This is a sure way to assist the poor, whom we know would benefit most from the primary level of formal education.

The non-poor have better access to this essential service. Therefore the introduction of cost sharing in education spelt out in the 6th Development Plan (1989 - 93), where parents and beneficiaries of education and training pay the costs of education may not improve the chances of the poor to getting access to education. This is likely to adversely affect the poor who are likely to be denied access to this essential service due to the introduction of costs they can ill afford. The poor have surprisingly smaller sized households implying that the emphasis on family planning may not be of direct benefit to them. However, this result may need to be interpreted with caution.

The poor lack access to high paying jobs and to jobs at all. The employment and labour market policies could have a role to play in alleviating poverty by ensuring that jobs are available for the majority of the population to enable them to improve their living conditions.

Some studies¹ have shown that the urban poor constitute casual labourers who obtain incomes from casual employment on a regular basis. It is important for us to adopt policies that will be directly beneficial to these people, such as multiple shifts in industry which will absorb many of those not able to secure more permanent occupations.² Employment in agriculture may also help to improve opportunities for employment in urban areas to prevent the influx of migrants in urban centres in search of a better life which only serves to worsens the urban poverty problem.

Welfare measures should ensure that the very poor and unfortunate gain access to health, education and other basic needs at reduced or no cost. Lastly it is necessary to ensure that staple foodstuffs maintain stable prices as much as possible to ensure that they are affordable to the poor.

5.3 Limitations of the Study and Suggestions for Improvement

The Urban Household Budget Survey (UHBS) used for this study is a general household survey for the period 1982/83, the most recent data available. It does not result from a poverty inquiry. It has nevertheless been used here since past studies on poverty carried out in most less developed countries (LDC) have used the results of household budget surveys to carry out poverty studies. This study was unable to test for the effect on poverty, by expenditure levels, of variables such as sex of head of household and finer categories of expenditures on food and non-food items, because the requisite data was not available. An indepth study on the current conditions of the poor requires upto date data especially on basic needs indicators such as living conditions, access to water, health facilities and education.

NOTES

1. See International Labour Organization. 1972. "Employment, Incomes and Equality. A Strategy for Increasing Productive Employment in Kenya". Geneva.
2. See Republic of Kenya. 1985. Sessional Paper No. 2.

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APPENDIX

Picture of Poverty in Less Developed Countries

We present here some recent estimates of the scale of absolute poverty in urban areas of selected LDC in Africa, Asia and Latin America.

The number of people in absolute poverty in Less Developed Countries (excluding China and the centrally planned economies) was estimated at around 780 million in 1980. Half of the people in absolute poverty live in S. Asia, mainly in India and Bangladesh. A 1/6 live in East and Southeast Asia, mainly in Indonesia. Another 1/6 are in Sub-Saharan Africa. The rest about 100 million people are divided among Latin America, North America and the Middle East.

Poverty estimates in selected African countries is given in Table A.1. Using 1969 data, and assuming that an annual income of less than US \$75 constituted poverty, a World Bank study concluded that 60% of the population was poor. Using 1972 data and defining poverty as persons with incomes less than US \$117, an ILO study found that 65% of the population on the continent may be considered poverty stricken.

TABLE A.1

POVERTY IN SELECTED AFRICAN COUNTRIES: 1970

Country	Year	Minimum budget	GDP per head US \$ 1970	% of population below mini- mum budget
1. Ghana	1970	60 - 75 (all areas)	257	more than 50% in rural areas.
2. Swaziland	1976	R. 77.75 (urban areas)	270	-
3. Lesotho	1978	R. 152.6 (both urban and rural based upon urban figure)	74	-
4. Sierra Leone	1977	Le. 172 (urban areas)	147	65%
5. Tanzania	1969	Tsh. 457 (urban areas)	59	20%
6. Zambia	1974	K. 104 (urban areas)	425	24%

Source: Quoted from Part II Human Development in Sub-Saharan Africa, by David G. Davies, 1980 in Bussinek, W. ed. "Poverty and the Development of Human Resources: Regional Perspective". World Bank Staff Working Paper No. 406. The World Bank. Washington D. C. p. 65.

In E. Asia, Urban poverty still remains a problem with population pressure in rural areas spilling over into the cities of Eastern Asia. See Table A.2 for the case of urban poverty in E. Asia. According to approximations, 40% of Latin American households are poor, the incidence of poverty among urban households being 26% and among rural households 60%.

TABLE A.2
URBAN POVERTY IN E. ASIA: 1979

Country	Poverty line US \$ a year	% of population below the poverty line
1. Korea	298	20
2. Malaysia	221	25
3. Phillipines	229	60
4. Thailand	154	17
5. Indonesia		
(i) Java	214	66
(ii) Outer Islands	209	61

Source : Quoted from "Reflections on Socio-economic Development in E. Asia". In Bussinek, W. ed. "Poverty and the Development of Human Resources: Regional Perspective". P. 43.

In Latin America around 1970 there were almost 40 million urban poor. Table A.3 gives the incidence of poverty in selected Latin American countries.

TABLE A.3

INCIDENCE OF POVERTY IN SELECTED LATIN AMERICAN COUNTRIES:

1970

Country	% of households below poverty line	
	(Urban areas)	(National)
1. Argentina	5	8
2. Brazil	35	49
3. Colombia	38	45
4. Costa Rica	15	24
5. Chile	12	17
6. Honduras	40	65
7. Mexico	20	34
8. Peru	28	50
9. Uruguay	10	-
10. Venezuela	20	25
11. Latin America	26	40

Source: Quoted from, Altimir, O., "The Extent of Poverty in Latin America", World Bank Staff Working Paper, No. 522, World Bank, 1982.