

Determinants of Urban Poverty: The Case of Nekemte Town, Eastern Wollega Zone of Oromia Regional State

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Abstract

The strategies aimed at reducing poverty need to identify and analyze the factors that influence poverty and could in turn be influenced by policy factors. In this regard, this study was conducted to identify and analyze the extent and determinants of urban poverty in the case of Nekemte town. The study used both primary and secondary data; where the primary data were collected from total of 203 randomly selected households in six urban kebeles of the town. The logit model was fitted to identify determinants of poverty. In this case the probability of a household being poor is taken as a dependent variable and the set of demographic and socio economic variables were explanatory variables. The basic needs approach was employed to identify households as poor and non-poor. Based on this and using the price deflated national average poverty line of birr 5,220 out of the 203 surveyed households, 42 per cent were found to be poor. The head count ratio, poverty gap, and severity indices of the survey households were 0.42, 0.032 and 0.01, respectively. The logit estimation result revealed that family size and rural-urban migration have positive and significant effect on the probability of a household being poor. The sex of the household head, education level, and salary employment were found to have negative and significant effect on poverty. Since most of the poor are concentrated around the poverty line as we observe from the poverty gap, policies should focus on absolute poverty rather than relative poverty among the poor. Promoting female education should be an important element of poverty reduction policies this is because education and fertility are negatively correlated such a policy could also have an impact on household size which is another important determinant of poverty in Nekemte.

Keywords: Poverty, urban, household and expenditure

1.1. Background of the Study.

The world's population is becoming increasingly urbanized. In 1950, 30% of the world's population lived in urban areas, by 2002, the figure had increased to 47% of the global population (UN, 2002). In addition over three quarters of the population of industrialized countries now live in urban areas, while rural to urban migration in developing countries is increasing at a rapid pace. In sub-Saharan Africa approximately 34% of the population currently lives in urban areas, by 2020 it is predicted that nearly half (46.2%) of the population will be urban (UN, 2001). This expansion of urban agglomerations, in developing countries brings about severe challenges for assuring household food security and access to basic services such as adequate housing, water, sanitation, and education and health care facilities. There is a critical need to address issues of food security in the urban context in order to foster healthy urban environments.

According to the United Nations, the global urban population will grow from 3.3 billion people in 2008 to almost 5 billion by the year 2030 (UNFPA 2001.). This urban expansion is not a phenomenon of wealthy countries. Almost all of the growth will occur in unplanned and underserved city slums in parts of the world that are least able to cope with added demands.

The pace of urbanization far exceeds the rate at which basic infrastructure and services can be provided, and the consequences for the urban poor have been dire. Failure to prepare for this unprecedented and inevitable urban explosion carries serious implications for global security and environmental sustainability.

Coincident with the above fact one billion people one-third of the world's urban population currently live in slums (UN, 2006). In cities across the globe, hundreds of millions of people exist in desperate poverty without access to adequate shelter, clean water, and basic sanitation. Overcrowding and environmental degradation make the urban poor particularly vulnerable to the spread of disease. Insecurity permeates all aspects of life for slum dwellers. Without land title or tenure, they face the constant threat of eviction. Crime and violence are concentrated in city slums, disproportionately affecting the urban poor. Most slum dwellers depend upon precarious employment in the informal sector, characterized by low pay and poor working conditions. Illegal settlements are often located on hazardous land in the urban periphery. Perhaps most alienated in city slums are growing youth populations whose unmet needs for space, education, health, and jobs can lead to social problems, further undermining security in urban areas.

Marginalized from life and opportunity in the formal city, the urban poor are in many ways invisible to their governments. They live in irregular settlements where there are no schools or health clinics, and transportation to jobs is inadequate and costly. They are forced to pay considerably more to private vendors for services and infrastructure that are not provided by the government. Statistics often mask the severity of conditions for the urban poor. While demographic indicators for quality of life of urban dwellers can be higher

than for their rural counterparts, disaggregated data reveals differences within levels of access to services and stark inequalities, for example in child malnutrition and mortality rates. Highly visible disparities, spatial segregation, and exclusion create the breeding grounds for social tensions, crime and violence. Global poverty has become an urban phenomenon. In the year 2002, 746 million people in urban areas were living on less than \$2.00 a day (Ravallion 2007:16). The absolute number of urban poor has increased in the last fifteen to twenty years at a rate faster than in rural areas.

However, efforts to address the unique problems of urban poverty lag far behind the growth of the problems themselves. Antipoverty initiatives have traditionally targeted rural areas, which were presumed to have been worse off than urban areas. But the problems of poor city dwellers have become more pressing including the issues of how the urban poor earn their livelihood and the ways in which this affects key indicators of human welfare, such as food security and nutrition (Ahimed, 2008)

Sixty-six percent of the world's urban population lives in developing countries, and this will increase to 80 percent by the year 2030. Within developing countries, 38 percent of population now lives in urban areas. The urban population in developing countries is growing three times faster than the rural population (UN, 1998). Urban populations in Africa are growing rapidly, and inequality is increasing. The major urban food problems of the 1970s and 1980s, food shortage and price shocks, have apparently been largely resolved at least in the short to medium term. Because of this urban food security having long been defined as the issue of feeding the cities has dropped off the political agenda of urban planners and managers; indeed specifically urban food security problems receives relatively little attention from the national food or nutritional policy planners. Urban food security problems in Africa receive little attention partly because it tends not to be linked to seasonal or community wide process and partly because of a long – held belief that urban populations are better off but urban food insecurity is directly linked to urban poverty and inequality and for this reason research on urban food security must focus on the question of access to food.

Although Ethiopia is one of the most populous countries in Africa, it is also one of the least urbanized African countries. The level of urbanization reached 17 percent in 2002. However, this level is expected to reach nearly 30.1 percent by the year 2020, as the urban areas are currently growing at around 6 percent per year. The effects of natural population growth and growing rural - urban migration have been felt in terms of poor urban management, lack of infrastructure and inadequate service delivery. Drought and war have also contributed to the high population influx in to the cities and towns, which in turn contributed to the deterioration of infrastructure and service. Slow economic growth and the low level of investments in urban centers combined with high population growth, have resulted in high rates of unemployment and the inaccessibility and inadequacy of existing services for low income groups, which further exacerbated urban poverty (FDRE, 2002).

A combination of factors has resulted in serious and growing problem of poverty in Ethiopia. Adverse climatic changes (drought) combined with high human population pressure, environmental degradation, technological and institutional factors have led to a decline in the size of per capita land holding in rural areas. This was exacerbated by policy induced stagnations of agriculture and internal conflict and instability in the past resulting in to the widening of the food gap for more than two decades, which had to be bridged by food aid. On average at any year 4 million people need food aid (FDRE, 2002). In the last twenty years (1981 – 2001), on average 5.3 million people were affected by drought (FDRE, 2001). Moreover, a recent report also shows that the country's score of 0.414 the Human development is among the lowest in the world. This puts on the rank of 171 out of 182 countries (UNDP/HDR, 2009) cited in (Todaro and smith, 2012). In addition, the recent estimates of the incidence of poverty also attest the seriousness of the situation. For instance, according to MOFED (2012), 29.6% of the population is poor where the proportion of the population below the poverty line stood at 25.7% in urban areas.

Urban poverty in terms of access at the household or individual level has increased as urban poverty and inequality have increased. Under circumstances where low-income urban populations are spending up to three quarters of their total income on food, the issue of income and livelihood are directly linked to food security. In the earlier era, urban food security in Sub-Saharan Africa was characterized by short term, acute crises, but has become a chronic problem experienced mainly by the poor (Maxwell, 1998) Cited in (Ayaleh, 2009).

According to Tesfaye, (2006) urban poverty in Ethiopia using the 1994 and 2000 household survey data obtained from the Ethiopian Urban Household survey (EUHS), reveals that urban-specific poverty indices had decreased in three of the urban centers surveyed (Addis Ababa, Awassa and Mekelle) while it increased in the rest of the cities (Bahir Dar, Dessie, Dire Dawa, Jimma). The growth effect contributed significantly to changes in poverty in some urban centers (Addis Ababa, Awassa, Jimma and Mekelle) while the re-distribution effect was dominant in others (Bahir Dar, Dessie, and Dire Dawa).

Nekemte town's poverty situation is very severe, as it is recognized from several indicators of poverty like high unemployment level, poor sanitation system, inadequate pure water supply, inadequate electric power supply, low wage employment for daily laborers, large percentage of population with low-income earning,

inadequate health facilities, poor infrastructural facilities (roads, networks and etc), poor housing services, and etc.

1.2 Statement of the Problem

Poverty in urban areas could take place in an environment of diverse condition, problems and actors. To meet the rising challenge of urban poverty and malnutrition governments, communities and aid agencies must work together. But improved responses to these problems require more information about their causes and better analysis of what programs and policies are most effective (IFPRI, 2002).

Previous analyses of poverty in Ethiopia have generally focused on rural rather than urban areas. Dercon and Krishinan (1996), for example, study the status of rural poverty in Ethiopia by taking the income portfolios and food entitlements of households. Bevon and Joermen (1997) in Ayalneh (2009) adopt a sociological approach to analysis rural poverty. They explored the importance of social class and family relationships including the extended family in the fight against poverty. They conclude that in rural Ethiopia social capital are very important in the way of out of poverty.

At the recent time, though poverty is taken as the country's rural phenomena there is a diffusion & Growth of urban poverty. Indeed, the number of urban poor is increasing at unprecedented rate. This is due in part to the highest rural –urban exodus & alarming internal population growth (Dessalegn & Aklilu, 2002). In effect, the urban economy has limited capacity to accommodate the populous. In such a situation employment in the formal sector is tough & the probability of getting commendable job opportunities, in fact, could be daunting.

The report on household food security study of four towns of Ethiopia has thrown light on the magnitude of urban food insecurity. Considering an intake of 2100 calories per person per day and the minimum cost prevailing in each location, households with insufficient purchasing power in Nekemte were identified to be 47 % (MoFED, 1994). Study result of MoFED (2002) Welfare Monitoring Unit showed that for the period 1995/96 and 1999/00 the calorie intake per adult per day in urban Nekemte is estimated to be 1831 and 1929 kcal respectively which is below the minimum requirement of 2100kcal. All urban households (rich and poor) are averaged out to provide one single estimate of the caloric intake. The Central Statistics Authority (1999) report indicated that population growth rate in urban Nekemte with the medium variant was estimated to be about 4.1 for the period between 2005– 2010. With regard to urban unemployment CSA (2004) report revealed the unemployment rate of urban Ethiopia in 2004 was 22.9 percent and the rate was highest in urban areas of Nekemte (33.5%) followed by Addis Ababa (22.1%). This increase in urban population outstrips the capacity of the city to provide employment opportunity because it cannot absorb all the additional supply of labor coming from other areas.

Moreover, According to (planning and economic development office report of East Wollega, 2012) the economic activity and social infrastructure of the town is low and the overall living standard of the inhabitant is not in a good condition. This is due to excessive rural-urban migration, population growth, strikingly high and ever increasing HIV/AIDS prevalence rate, limited infrastructure and technical skill. As well, interruption of the electric power, communication network and water supply. Moreover, lack of diversified opportunities such as, lack of commerce, entrepreneurship, income shortage, sanitary problem and more of dwellers are engaged in occupation which have limited returns. This include large number of the residents employed in civil service, small scale industries (wood work and metal work) and in a number of petty business of preparing and selling the traditional popular drink- tella, arekie and teji. In sum, the entire above problem directly or indirectly have implication of urban poverty in the town.

Strategies aimed at poverty reduction, both in rural and urban, need to identify factors that are strongly associated with poverty and amenable to modification by policy (Alemayehu, et al. 2006). However; although the problems are getting sever, the factors that account for the results are not studied very well (Esubalew, 2006). Nekemte, which is one of the oldest & medium town's of Ethiopia, faces no exception to this.

The above different research findings regarding rural and urban poverty may be due to a number of differences in these studies such as definitional differences, methodological differences, socio-economic difference, spatial and time differences of the respective study areas. Even when the definitions of poverty have been homogeneous, different results can still be obtained if different methodologies have been used. In addition, there is a cultural component and socio-economic difference associated with work habit in earlier study areas; this means that the problem and determinants of poverty in different regions and/or cultural settings will differ. This indicates the need for region specific poverty studies.

On the other hand, there are various studies regarding the determinants, nature and problem related with poverty around the world. But due to the focus of previous studies on rural poverty, the determinant of urban poverty is not studied very well and most of them are descriptive. Therefore, this research is intended to examine the determinants of urban poverty in Nekemte town using both descriptive and econometric model by specifying logit approach rather than descriptive alone. Once again the issue of poverty may differ from town to town, which calls for studying the situation for each town separately rather than making generalizations based on the

studies in few urban centers. Having this in mind, this research is designed to investigate the extent of poverty in one of the urban areas of Ethiopia, Nekemte.

1.3 Objectives of the Study

The general objective of the study is to examine the extent and determinants of urban poverty in Nekemte Town. The specific objectives are to:

- Examine the dimensions and extent of urban poverty in the study area
- Identify the determinants of urban poverty in the study area.

1.4 Scope and Delimitation of the Study

Urban poverty is the worldwide issue specially, in less developed country particularly in Ethiopia. There are also different towns in our country, which face the problem of urban poverty. But this paper is focus on specified area. The study conducted will be assessed the situation of Urban poverty in the Nekemte town having the sample of six kebeles at a household level. This scope is preferred to be manageable & accuracy. Moreover, since poverty is multi-dimensional (asset, income and expenditure) and studying all dimensions require ample time, budget and intensive investigation of each aspect, the researcher studies on the expenditure dimension of poverty.

2. METHODOLOGY

2.1 Description of Nekemte Town

Nekemte Town is one of the old and medium towns in the country, established in the mid 19 century. However, it is highly under developed as a function of low attention was given to its development by successive regimes. Among other things, the development of town's trade and industry is found at a very infant stage.

Nekemte urban local Government (NULG), administration of self rule by the town was incorporated among the 20 selected cities in Oromia Regional state and reformed in 2005 in accordance with the proclamation No. 65/2003. The objective of the reform was to tackle the imbalance of life condition, lack of infrastructural services in the urban due to increasing rural-urban influx, shortage of residence, unemployment, aggravated poverty and its consequence such as crime, ill health that emanated from lack of sanitation, environmental pollution in the settlement of urban dwellers.

The town is situated on a flat, hilly landscape. It is located at a distance of 331 km west of Addis Ababa, 110km north east of Gimbi the principal town of west Wollega Zone and 250km north west of Jima zone in Oromia Regional state. Currently it is a capital city of East Wollega zone of Oromia Regional state with the total land area estimated to be 5480 hectare. Administratively, it is divided in to six sub towns of Darge, Bake Jama, Burqa Jato, Bakanisa kese, Chalalaki and Keso. A town's altitude ranges from 1960 to 2170 m.a.s.l where as its average annual rain fall is 1854.9mm and the average temperature ranges from 14^oc to 26^oc.

Table 3.1: Nekemte town population

Year	Male	Female	Total
2007	39317	37795	77112
2008	41020	39432	80452
2013	50927	49852	100779

Source; Written documents from the town administration

2.2 Sample Design

2.2.1 Data requirement

Both primary and secondary data has been used to carry out the study. The primary data has been obtained through structured questionnaires. The structured questionnaires were posed to the heads of the households with the support of the enumerators.

Secondary source were written documents from the previous working literatures, statistical facts and figures. Having this two source the writer will draw conclusion with observation and experience

2.2.2 Sample size

The study employ cross-sectional survey to asses determinant of urban poverty in Nekemte, from the six kebeles 203 sample size is determined using mathematical formula developed by Yamane (1967:886) has been used...

$$n = \frac{N}{1 + N(e)^2}$$

Whereas n = Household sample size

N = Total household population size =20,870

e = Degree of precision = 7%

= with the given level of confidence 93%

$$n = \frac{20870}{1+20870(0.07)^2} \quad n= 203 \quad \text{Therefore, the sample size was 203}$$

2.2.3 Sampling technique

The sampling technique was a random sampling technique so that each household has equal chance to be selected. The town has six sub towns namely; Chelalaki, Bake Jama, Bakanisa Kase, Burka Jato, Kesso and Darge, with a total of nine kebeles. Based on this administrative division, six kebeles has been taken for collecting data. The sampled kebeles were 01, 02, 03, 06, 07 and 08. They are selected randomly to have one kebele from each sub town.

Finally, 203 households were randomly selected from each representative kebeles by using probability proportional to size. The sample frame is registered household list collected through census by Population and Vital Statistics Office of the Administration Council with technical support of Central Statistical Authority and the list was updated whenever new household come to the town as a resident and seeks to obtain any service.

2.2.4. Method of data analysis.

Household expenditure is considered as an adequate measure of household welfare in developing countries as it is better able to capture household composition capabilities Grootaert (1986). Accordingly, a household is considered as poor when household expenditure is insufficient to meet the food and other basic needs of all household members. Many poverty analysts including Kedir (2003), Esubalew (2006) and Tesfaye (2006) used a household level analysis in their poverty studies. This approach is based on a simple and plausible assumption that all members of the household equitably share income, consumption and resources.

The importance of this assumption is that, since we use a household level analysis, we can easily classify households as poor and non poor by taking their total household consumption and dividing it by the household’s adult equivalent size. This is due to that, in most house hold surveys, it is very difficult to get information about how resources are distributed among household members. In reality, the assumption is at best an approximation, because there may be inequalities in privilege and access to resources among household members. But, the researcher accepts this assumption due to the aforementioned reason.

Moreover, the analysis uses the annual adult equivalent consumption expenditure in general and cost of basic need approach in particular to classify households as poor and non poor. The rationale behind this is that, individuals and households are assumed to maximize their consumption subject to constraints and preference to leisure. Consumption is also less volatile than income, because households have the possibility of smoothing consumption through different mechanisms (Kedir, 2004). Therefore, consumption expenditure can be considered better welfare indicator especially for LDCs like Ethiopia, where household incomes are mostly erratic and non-regular. Therefore, for the purpose of this study, the 2011 national total poverty line of Ethiopia (which is estimated to 3,781 Birr) prepared by MoFED is used, but adjusted for inflation growth rate of Ethiopia from fiscal year 2011-2014 GC. Hence, the following simple mathematical manipulation is done to set the current poverty line of the town.

Let p^0 be the initial inflation rate (2011 base year inflation rate), P^1 be the current adjusted inflation rate and r be the average annual inflation growth rate of Ethiopia over the period 2011-2014(Appendix 8).

$$P^1 = (p^0 + r p^0) \dots \dots \dots (3.1)$$

$$P^1 = 0.361 + 0.274 * 0.361$$

$$P^1 = 0.361 + 0.099$$

$$P^1 = 0.46$$

Now to estimate the current poverty line of the study area we must use the adjusted inflation rate. In other words the current poverty line is the inflation adjusted price of basic goods needed for survival that were calculated in the year 2011(the year 2011 total poverty line). To estimate the current poverty line it can be calculated as follows:

Let L_1 be the current total poverty line and L_0 is the 2011 base year total poverty line of Ethiopia and p^1 is the adjusted price.

$$\text{Thus, } L_1 = (L_0 + p^1 * L_0) \dots \dots \dots (3.2)$$

$$L_1 = 3781 \text{ Birr} + (0.46 * 3781 \text{ Birr})$$

$$L_1 = 3781 \text{ Birr} + 1739.26 \text{ Birr}$$

$$L_1 = 5,520 \text{ Birr}$$

Hence the poverty line of the district is estimated at 5,520 Birr per adult equivalent per annual.

2.2.5 Equivalence scales

The rationale behind demographic adjustment is that, different households have different demographic composition. Some households are nuclear while others are very large. Similarly, some households have large proportion of children while others are composed of adult members. So, aggregate consumption of households may bias in classifying households as poor (below poverty line) and non-poor.

Nor can per-capita income do that purpose. This is due to differences in relative needs of children in consumption that makes a difference in consumption needs across households of different age and sex

composition even when the household size is the same.

There are different methods of calculating equivalent income. These are generally classified as subjective and objective methods. The method that is popular and easily used is the nutrition (income) method which is one type of the subjective method. This method uses minimum consumption basket for each age and sex group to determine equivalence scales. Its benefit is that it is based on a specific socio economic context where the scales are applied. This method has been used by many poverty analysts of Ethiopia. This study also used this method. The scales were taken from Kedir (2003). Kedir has made some adjustments to the previous scales to the existing realities of the country stipulated by Ministry of Health. These scales are given (see appendix 2)

2.2.6 Model specification

The econometric part of analysis uses a proxy variable showing whether a household is poor or not. This proxy variable (taking binary form) is assigned a value of 1 or 0 using the poverty line as a cutoff point. i.e.

$$y = \begin{cases} 1 & \text{if } Y < Z \\ 0 & \text{if } Y > Z \end{cases} \dots\dots\dots 1$$

Where y is a categorical dependent variable, which stands for poverty status of the household with respect to Z, Z is poverty line and Y is real adult equivalent consumption.

Having the above information, the choice is among the qualitative response models, i.e. linear probability model, logit model and probit model. The logit model is more preferable for this study due to the draw backs of LPM and the normality assumption of probit model which makes it difficult to test. So the model is highlighted below.

The Logit model

Following the specifications in Gujarati (2004) and Madalla the dependent variable of the logit model takes binary response, i.e. y=1 if a given household is poor and y=0 if not. In terms of probability it can be written as

$$\begin{aligned} P(y_i = 1) &= p_0 \\ P(y_i = 0) &= 1 - p_0 \end{aligned} \dots\dots\dots 2$$

This simply shows that the probability that a given household is poor is p0 and the probability that it is non-poor is 1-p0. This can be written in equation form of logistic distribution as;

$$P_0 = E(y_i = 1/x_i) = \frac{e^{-(B_0 + \sum B_i X_i)}}{1 + e^{-(B_0 + \sum B_i X_i)}} \dots\dots\dots 3$$

$$P_0 = \frac{e^{(B_0 + B_1 X_1 + B_2 X_2 + \dots + B_i X_i)}}{1 + e^{(B_0 + B_1 X_1 + B_2 X_2 + \dots + B_i X_i)}} \dots\dots\dots 4$$

Where 'P₀' is the probability, e is an irrational number (2.718), B₀ the intercept term and Bi's are the coefficients of the predictors "X_i".

In reality p₀ is unobserved (latent) variable, but instead we see the proxy variable yi taking the values yi=1 if the person is poor and yi=0 if the person is not poor. So equation 4 can be written as,

$$P(y_i = 1/X_i) = \frac{e^{B_0 + \sum B_i X_i}}{1 + e^{B_0 + \sum B_i X_i}} \dots\dots\dots (5)$$

Equation 5 is expressed in terms of event probability, i.e. the probability that yi=1 occurs. The non event probability can easily be derived from the above equation. Since yi takes only 0 and 1, the probabilities of yi=1 and yi=0 should sum up to 1. So the non event probability will be;

$$\begin{aligned} P(y_i = 0/X_i) &= 1 - P(y_i = 1/X_i) \\ P(y_i = 0/X_i) &= \frac{1}{1 + e^{B_0 + \sum B_i X_i}} \end{aligned} \dots\dots\dots (6)$$

By taking equations 5 and 6, we can write in terms of odds (probability ratio) as;

$$\begin{aligned} \frac{P [y_i = 1 / X_i]}{P [y_i = 0 / X_i]} &= \frac{P [y_i = 1 / X_i]}{1 - [y_i = 1 / X_i]} = \frac{[1 + e^{B_0 + \sum B_i X_i}] [e^{B_0 + \sum B_i X_i}]}{[1 + e^{B_0 + \sum B_i X_i}]} \\ &= e^{B_0 + \sum B_i X_i} \dots\dots\dots (7) \end{aligned}$$

The equation is simply the odds in favor of being poor, i.e. the ratio of the probability that a given house hold is poor to the probability that it is non poor. Equation 7 can be linearized by taking the natural logarithms as

$$Y_i = \ln \left[\frac{P(y_i = 1 / X_i)}{1 - P(y_i = 1 / X_i)} \right] = B_0 + B_1 X_1 + B_2 X_2 + \dots + B_i X_i$$

$$Y_i = B_0 + \sum_{i=1}^i B_i X_i \dots \dots \dots (8)$$

Y_i is simply the log odds ratio, which is linear in X's. If we are interested in probabilities rather than the odds, we estimate the coefficients B_i.

Generally, for estimation purpose, the logit model can be written as;

$$Y_i = B_0 + B_1 X_1 + B_2 X_2 + \dots + B_i X_i + E_i \dots \dots \dots (9)$$

Where, E_i is a stochastic term, which indicates the random effect of other variables that are not included in the model. The most important properties of the logit model are;

The dependent variable is assumed to have a linear relationship not with the predictor as it is, but with its logit form. Moreover, it doesn't assume any relationship between the predictors; they may take any form.

There is no assumption of normality regarding the distribution of the error term. Rather it is assumed to follow a logistic distribution.

Having the afro mentioned discussion, our econometric model becomes

$$Y_i = B_0 + \sum B_i X_i + E_i$$

Where, 'Y_i' stands for the status of the household with reference to the poverty line. B_i's are coefficients of the predictors 'X_i'. i stands for households run from i to n. X_i's are predictors. E_i stands for error term.

3. DATA ANALYSIS

3.1 Descriptive Analysis

3.1.1 Characteristic of surveyed households

Most of the surveyed households were headed by male adults. Only 15.27% were headed by females while the remaining are male headed. Similarly the majority were comprised of more than two members. The adult equivalent family size is found to be 3.7 in Nekemte. While, the average household family size is found to be 4.6 which are somewhat less than the estimated average household family size of the country 4.8 2010/11 by CSA's statistics for Ethiopian welfare monitoring survey.

Most of the households were comprised of non-endogenous peoples coming either from the nearby rural area or other towns. Out of the migrants the majority were from the nearby rural area comprising 26.11% of the total households surveyed. This is not surprising since one of the problems faced by LDC's is rural urban migration in search of better paying job which results in pressure of unplanned urban growth. It is one of the mechanisms by which rural poverty is transferred to urban areas (Esubalew, 2006). In terms of duration of residence in the town, most of the households have lived long. The duration of residence varies from 1 to 52 with mean 27 years and standard deviation of >15. The value of the standard deviation shows that there is high variation among households in length of residence in the town.

When we observe the household income and expenditure character, the average income of surveyed households, measured per adult equivalent, is 7,439.23 and it ranges from 1,483 to 19,281. The variations in the distribution of income are very large as measured by the standard deviation which is 3916.24. Compared to the mean household income, mean consumption is smaller (5,872.92). The Consumption expenditure of the surveyed households ranges from 1,765.23 to 16,427.42 with standard deviation of 2,987.01. The variation in consumption expenditure is also smaller than the former. But still the absolute figure is large which shows that the distribution of mean consumption is highly unequal.

The minimum values for equivalent consumption expenditure are found to be higher than the minimum value for income. But the maximum values for equivalent income is greater. This indicates that, income of the poor is under stated than consumption expenditure. Living in urban areas which are highly monetized, the poor people have no regular income. Rather, they have to depend on the informal sector. But income from this sector is highly erratic and is difficult to recall. It may also indicate house consumption smoothing behavior of the poor. This strengthens the argument that consumption expenditure is better measure of household welfare.

3.1.2. Analysis of extent and dimension of poverty.

To see the extent and dimension of urban poverty in Nekemte first the number of poor and non-poor households in the study area must be identified. To identify the poor from the non poor, the study uses previously constructed national poverty line (from CSA report 2010/11) with price deflated, which is 5,220 birr per annual. The annual consumption of the surveyed households were adjusted for differences in household demography. After all, the summary results concerning the incidence are given below. If X is total expenditure of a households annually and Y is the adult family size of the surveyed household in the town.

$$\frac{\sum_{i=1}^{203} x_i}{203} > 5220 = 118 \text{ households (above the poverty line)}$$

$$\frac{\sum_{i=1}^{203} y_i}{203}$$

$$\frac{\sum_{i=1}^{203} x_i}{203} < 5220 \text{ consumption expenditure} = 85 \text{ households (below the poverty line)}$$

$$\frac{\sum_{i=1}^{203} y_i}{203}$$

In the research there exists three indices of poverty as follows.

1. Head Count (p_0) := $q/N = 85/203 = 0.42$ As it is evident from this formula, the incidence of poverty in the town is considerable (42%). q total number of poor household, N total sample size.

2. Poverty Gap (P_1) := $\sum_{i=1}^q \left(\frac{Z - Y_i}{N \cdot Z} \right) = 1/203(6.53) = 0.0324$, while the average poverty gap is 415.16. This implies that to what extent the poor are far from the poverty line.

3. Severity Gap (P_2) : $\sum_{i=1}^q z^2 = 1/203(3.04) = 0.015$. This not only number of household

poor and extent but also it shows severity of the poverty (poorest of the poor).

z = poverty line, y_i = consumption expenditure of the poor $i=1, 2, 3, \dots, q$ and N = total sample size.

Table 3.1: summary result on poverty indexes of Nekemte town

Head count (p_0)	Normalized poverty gap (p_1)	Squared Poverty gap (p_2)	Annual Total poverty gap(TPG)	Average poverty gap(APG)
0.42	0.03246	0.015638	35,288.60	415.16

Source: the researcher's survey result, 2014

As it is evident from the above table, the incidence and extent of poverty in the town is considerable. Almost 42% of the people can't meet their minimum requirements (below the poverty line). When we see the annual short fall of the poor's consumption expenditure, it is on average 415.16 birr. This implies that on average birr 415.16 per annual were required to bring a poor person in the town just to the poverty line.

3.1.3 Descriptive data analysis.

Urban poverty is influenced by many socio economic and policy variables. In most cases this variables are acting simultaneously to affect the incidence. Since it is difficult to control for all the variables, the relation between variables may not be clearly identified by descriptive analysis. But it is essential to give insight and bring familiarity with the issue before econometric analysis is undertaken.

Table 3.2: mean comparison test

Variables Name	Mean values for poor n = 85	Mean Values for non-poor (n =118)	Mean difference	T –test for Mean Difference
Sex of the head	.7411765	.9152542	.1740778	3.4382***
Age of the head	38.4	33.22881	5.171186	-3.0265***
HhMstatus	.7411765	.8559322	.1147557	2.0587**
Hh family size	5.435294	3.949153	4.571429	6.3816***
HhHEducational level	9.576471	12.91525	3.338784	6.8609***
Hhwage employed	.1529412	.5	.3470588	5.4339***
Hh self employed	.1764706	.3474576	.170987	2.7248***
Hh unemployed	.2823529	.0508475	-.2315055	-4.8191***
Pensioner	.1058824	.0508475	-.0550349	-1.4795
Rural urban migration	.4588235	.1101695	-.348654	-6.0785***
Hh private water own	.8	.9322034	.1322034	2.8710
Hh private house own	.6941176	.7711864	.0770688	1.2319
Hh annual expenditure	4177.929	6650.669	2472.74	12.8877***

Source: Own Survey (2014)

*** and ** indicate that the statistical level of significance at 1% and 5%, respectively

As indicated in the above table there is statistical significant difference between the mean value of the poor and non poor with respect to the following variables. Like sex of the household head, age of household head, marital status of the head, household family size educational level of the head, different occupational level and rural urban migration.

Despite the general acceptance of poverty as a multi-dimensional concept, households in poverty differ from the non-poor households in several identifiable ways. In many cases those factors are poverty generating factors.

Table 3.2 is to facilitate comparison of some important characteristics of the poor and the non poor households, classified based on their annual expenditure, with the overall sample. One average, in comparison to the non-poor, poor households tend to be female headed, older by 5.0 years, are less educated. At the same time unfavorable family size (large) composition of family size and their rural urban migration have depressed the per capital household income of the poor more. The combination of older household head, rural urban migration of the head with low education is likely to be a handicap over the household's entire life cycle and results in lower earning capacity for the poor families. This leads to less annual expenditure or to be poor.

Since the above table (mean comparison test) doesn't explain the detail characteristics of explanatory variables which mainly determine the poverty level; another way of detail explanation method like poverty incidence tool has been employed.

4.1.3.1 Poverty Analyses with respect to household demographics

Household demographic composition like household size and age of the head are important covariates of poverty. The results regarding household headship, most empirical studies have discussed the phenomena of feminizing poverty which assumed that the prevalence of poverty is higher to female-headed households than male-headed ones. Additionally, different scholars support this assumption by providing various justifications. This could be due to the presence of discrimination against women in the labor market, or it might be because women tend to have lower education than men do and therefore they are paid less salaries. Or else, they are in general deprived the opportunities of exercising when compared to men in many respects.

In Nekemte as an evidence, having the below table survey result the incidence of poverty is high for those of female headed (48.38) while low for male headed household (40.69). This implies that being in a household of female-headed one is more vulnerable to the probability to fail below poverty line in Nekemte than those of male headed ones.

The household head age and poverty. From different scholars there are different arguments some of them argue that poverty increases at old age. This is because productivity of the individual decreases and the individual has few savings to compensate for the decrease of productivity and income. This is, of course, more likely to be the case in developing countries where savings are low because of low income and at the old age being mostly dependent.

The others contend that age is correlated with higher productivity and hence impacts welfare positively. A third view that could be worthy of note to see is that neither of the two approaches be correct. This is because the relationship between age and poverty might not be linear, as we would expect that incomes would be low at relatively young age, increases at middle age and then decreases again.

In the case of Nekemte, age of household was not found to be significant in linear terms..The researcher classified the age of the household into below 30, 30- 55, above 55. This is important to see the relationship between probability of falling in to poverty and age of household head in the three age ranges: early, middle and relatively old age and the results of the survey is indicated below.

Table 3.3: Poverty indexes for demographic characteristics

Characteristics	%share	Head count (P0)Poverty incidence
Household head ship	Female	15.27 48.38
	Male	84.73 40.69
Age of the household head	<30	23.65 43.75
	30_50	64.53 39.69
	>50	11.82 50.00
Household family size	>=5	43.84 48.31
	<5	56.16 36.84
Marital status	Married	74.88 42.10
	Never married	11.82 34.01
	Divorced	4.43 55.56
	Widow	8.87 44.44

Source: own survey result, (2014)

As we observe from the above table the incidence of poverty is high during the age of early (43.75) next to old age (50.00), while it is low at the middle age (39.69). This manifests that the probability being poor is high

at the old age. It may be due to at the early age in ability to generate high income while at the old age due to lack of saving habits at the middle age. The researcher finding was similar with that of life theory, according to them we would expect to find that poverty is relatively high at young ages, decreases during middle age and then increases again at old age.

Household family size and poverty

From different literature and report there is a linear relationship between poverty and household family size. As an example Large households tend to associate with poverty (World Bank 1991 a, b), Lanjaw, and Ravallion (1994). The effect of household size on household well- being very much depends up on the degree of rivalry in consumption among household members. All consumption in the family is public so that every marginal increase in consumption benefits all household members.

In the case of Nekemte to analysis the household’s family size the households family size are classified in to two by using the average household size as a demarcation. So households having higher than the average are considered relatively larger households and vice versa. Since the average house hold size of the surveyed households is 4.6, we can consider those households having a size which is greater than or equal five as large households. Although the average is in fraction form, the size of a particular household cannot take a fraction form.

The descriptive study area found as expected because the researcher expects that there is a positive relationship between the probability to be poor and size of households. As it is observed from the above survey result there is a positive relationship between the household family size and poverty incidence. Therefore as the household family size increase the incidence of poverty (probability to be poor) also increase. 48.31 For large household while 36.84 for small household.

Marital status of the household head and poverty

Marital status of the household head is an important constituent of the demographic variables. But from different angles there is positive and vise verse between poverty and marital status of house household head analysis. Economic theory and most empirical literatures support the notion that the chance of falling into poverty increases as one is married. This is due to when people get married household size will increase as new children are born and expenditures increase which in turn leads to searching for mechanisms of fulfilling additional needs and necessities for the family. On the other hand as one is married the probability of falling into poverty decreases, as there is more labor forces in the household and unity. Table 4.3 elaborates the situation more.

Separately from the table4.3 we demonstrate that the poverty incidences are higher among divorced households (55.56). The probability to be poor is also high in the widowed households next to divorced households, this may be due to the fact that if the household head died who is economically managing and the rest may be inactive. While, from the never married total respondents (34.01%) of them are found below poverty line which constitute low probability to be poor. This may be due to having single family size who is productive which leads to high income and less expenditure.

Previous residences (Origin of household head)

As it is mentioned in the introduction part, one of the most important causes of growth and change in composition of urban population is migration. Rural urban migration is alarmingly growing in most LDCs. In some cases, there may be differences in access to services and even in chance of poverty based on whether the household is migrant or endemic inhabitant. The results in Nekemte are shown in the table below.

Table 3.4: Poverty incidence by previous residence

Previous residence	%share	Head count (P0)(poverty incidence)
Endogenous	35.96	38.35
Come from Other town	37.93	29.87
Come from rural	26.11	64.15

Source: own survey result, (2014)

As it can be easily understood from the above table, incidence poverty is more widespread among those migrants from the nearby rural areas. This indicates that migration from rural areas is the cause of Nekemte urban poverty. This may be due to that those who have been migrated from rural couldn’t cope up with urban life and remain poor. In addition, people coming from other town are relatively better off. The possible explanation for this result may be that these people could not face a difficulty in adapting the urban life. Moreover, urban-urban migrations are mostly undertaken in search of better employment opportunities which generate high income. Generally from the above figure those migrant from the rural to Nekemte town have high probability to be poor as compared to the others. While those from the other towns less probability to be poor.

3.1.3.2. Educational level of the household head and Poverty

Most researchers and development specialists agree that investment on human capital has a very crucial role in tackling poverty and income inequality. Education is the major source of difference in earning power of individuals. At household level, education achievement of the head is considered to determine the poverty status

of the household since the head is the most important bread winner, though not always the only. In addition, the head is the most important exponent of decision making in the household.

Table 3.5: Indexes for different educational levels of the head

Education achievement Of the head	% share	head count (P0) (poverty incidence)
Illiterate	10.34	47.61
Primary	19.21	71.17
Secondary	26.11	39.62
Tertiary	45.81	28.88

Source: own survey result, (2014)

As it is evident from the above table, those households with the head uneducated are considerable. The other thing that can be noted from the table is the relationship between education achievement of the head and chance of being poor (incidence of poverty). Except for the case of primary, poverty headcount consistently decrease as the level of education increase. Especially those who have tertiary education are found to be better off. This is due to that households whose head has achieved tertiary education have a chance of earning better income since the head has higher probability of being employed in well paying jobs. The same finding was arrived at by many researchers of poverty in urban Ethiopia. For instance, Kedir (2003) found that a negative and high association is found between the probability of being poor and educational level of the household head. Generally, the poor tend to have a head with low education achievements. On the other hand, those households whose head has achieved tertiary education have lesser chance of suffering from poverty in the town.

As indicated in the above table the incidence of poverty decreases as the level of education increases. It is 47.61%, 71.17%, 39.62 and 28.88 incidence of poverty at illiterate, primary, secondary and tertiary level respectively.

3.1.3.3 Occupational groups and poverty

The type of economic engagement has also been important in determining the probability of a household falling under poverty in many urban poverty researches. For instance in Ethiopia, poverty is found to be more widespread among some occupational groups although it differs from town to town. A good example of this cited in the empirical literature part is Kedir (2003) finding which approves that poverty is related with unemployment and casual employment of the head.

Table 3.6: poverty indexes for different occupational groups

Occupation	% share	head count (P0) (poverty incidence)
Casual	15.27	67.74
Salary employed	34.98	30.98
Self employed	28.09	38.59
Unemployed	14.29	44.82
Pensioner	7.39	46.67

Source: own survey result, (2014)

The finding in Nekemte also assures that there are significant differences in chance of poverty across different economic engagements of the household head. Those households with casually employed head have higher poverty incidence which reveals high tendency of being poor while wage earners are found to be better off. This may indicate that casual employment has very little rewards while wage employment of the household head reduces the chance of being poor.

Looking at the results from the above table, we can understand that households with self employed head are less vulnerable to poverty next to households headed by wage earner. Moreover, households with unemployed head are less vulnerable to poverty next to households headed by self employed almost with equal probability. The result may be due to that people remain unemployed because they have another alternative source of income. In addition, the duration of unemployment and the type of economic engagement before unemployment may determine the probability of a household with unemployed head being poor. If the duration of unemployment is a short time, it may not have strong impact on the household's probability of being poor. Similarly, if the previous economic engagement of the unemployed head was well paying, then he/she would have better opportunity of acquiring wealth. So these factors may affect our result. On the other hand pensioners are more vulnerable to poverty next to casual. This may be due to as the household head become pensioner his level if income decrease.

3.1.3.4. Saving and poverty

Another way of looking at the life standard of the households is to assess their saving status. A question introduced to assess the status of saving among the households was "why not the family saves" if they were first identified as non-savers. Three alternatives were suggested as to why not the household saved as: lack of sufficient income, transfer to other duties and there is saving. Having the information from the respondents the

probability to be poor increase as the households head become non saver due to lack of sufficient income. While non savers due to transfer to other duties are less vulnerable to poverty.

A conclusion one can draw from this is that households of non savers because of lack of income faced the incidence of poverty more than those who provided other reasons like transfer to other business.

Table 3.7: poverty and saving

Why households not save	%share	Head count (P0)(poverty incidence)
Due to insufficient income	68.97	55.00
Due to transfer to other business	10.34	28.57
There is saving	20.69	35.71

Source: own survey result, (2014)

3.1.3.5 Health and poverty

More than anything else health is the first and single factor for the well/ bad being of individuals. Without proper health life is difficult. The first question posed in this research was whether any member of households suffered from disease or not and the alternatives provided to them were only two: yes or no.

From those who respond No 49(36.02) of them are in the poor category and the rest 87(63.98%) are in the non-poor category. On the other side, from those who respond yes 36(53.73%) of them are in the poor category and the rest 31(46.27%) are in the non-poor category. Even though it is not so much significant in the case of Nekemte, Disease is one of the determinants for the aggravation or improvement of poverty as many literatures proved and from theoretical underpinnings. It is so difficult to think about anything, without physical and mental health.

Table 3.8: Health and poverty

Poverty level of household	Did household members suffer from diseases?		Total
	No	yes	
poor	49 (36.02%)	36 (53.73%)	85 (42%)
Non-poor	87 (63.98%)	31 (46.27%)	118 (58%)
Total	136 (67.21%)	67 (32.79%)	203 (100%)

Source: own survey result, (2014)

3.1.3.6 Possession of physical capital

It is obvious that, wellbeing resides in living and getting life sustaining goods and services. One of these elements is access to pure water which is basic for the health and smooth functioning of one's body. But in many cases, the poor have no access to such service. Access to pure water is mostly related to the source. In most cases residents of cities get water service from water supply agencies. But in terms of the coverage of the service the poor are not reached by these services. The main reason is that, the poor can't afford to pay for the initial installation of the equipments. In the case of Nekemte, more than 24% of the households are not users of private tape water service. The disaggregated results show that, those households above poverty line based on equivalent expenditure measure have higher probability of having private tape water. In the same way, compared to the non-poor, the poor have higher tendency to get water from public collection water tapes (bono) an

Table 3.9: Source of drinking water and poverty

	Source of water owned by household			Total
	Private	Public	Others	
poor	58 (37.67%)	18 (48.64%)	9 (75.00%)	85 (42%)
Non poor	96 (62.33%)	19 (51.36%)	3 (25.00%)	118 (58%)
Total	154 (75.86%)	37 (18.23%)	12 (5.91%)	203(100%)

Source: own survey result, (2014)

From the table below more than 81.72% of the households have their own house. Compared to the poor, the non poor are better off in this respect. Cars are exclusively the commodities of the non-poor. From the total asset owned more percent of them are on the hand of non poor except radio. The next table summarizes these results. The figures in the table are in percentage form and indicate the percentage of households from that total. i.e. either poor or non poor, possessing that particular asset. The total shows the percentage of total households possessing that asset. It is simply a weighted average of the percentages in the poor and non poor columns. So it is not expected to sum up to 100%. The percentages (proportions) are summarized separately for the poor and non-poor for comparison purpose.

Table 3.10: possession of physical assets and poverty

Type of asset or durable	Poor in %	Non-poor in %	Total in % (weighted average)
House	13.79	86.21	81.72
Car	0	100	5.91
refrigerator	16.71	83.29	66.71
Television	32.87	67.13	92.59
Tape recorder	48.79	51.21	46.344
Radio	57.14	42.86	74.97
Stove	18.46	81.54	73.15
Telephone	28.57	71.43	60.21

Source: own survey result, (2014)

3.2 Econometric Analysis

Although attempts were made to analyze the determinants of poverty in the descriptive part, variables may interact. So to see the effect of variables more precisely, multivariate analysis is necessary.

3.2.1 Econometric tests

Before going to estimate the specified model, it is important to undertake different tests on whether the basic assumptions of the model are met or not. In addition, the goodness of fit of the model should also be tested. Hence, the tests will be as follows.

3.2.1.1 Multicollinearity test.

Multicollinearity is an inevitable phenomenon in all multivariate analysis, no matter how small or big the problem is. However, if the co variation is strong it will affect the significance of the estimates and remedial is necessary. The existence of Multicollinearity is tested using Collin test and the researcher found that there is high multicollinarity between those of household occupation dummies. Therefore, the problem cannot be tolerated. To mitigate the problem, one of the variables should be dropped. Since the casual employment was insignificant the researcher dropped as a remedial. Then after there is no the problem of multicollinarity (appendix 4)

3.2.1.2 Goodness of fit test

The researcher uses from two alternative ways to test the model; namely, the likelihood ratio test and the Hosmer Lemeshow test, the likelihood ratio test has been used. As we see from the results, the lr (χ^2) value of the model is very high (125.03) with the p-value of 0.000 (see logit estimate table). This indicates that the model as a whole is statistically significant.

3.2.2 Estimation results and analysis

Table 3.11: Logit estimates

hhxpend	Coef.	Std. Err.	Z	P> z	Marginal effect(dy/dx)
Sex of the head	-1.168927	.5886647	-1.99	0.047**	-.2832387
Age of the head	.0127522	.0232833	0.55	0.584	.0029812
maritast	-.6785283	.6003265	-1.13	0.258	-.1641119
hhsfamilys~e	.5640337	.1639846	3.44	0.001***	.1318609
hheduc	-.1926662	.0690279	-2.79	0.005***	-.0450419
wageemploy	-1.599241	.6653497	-2.40	0.016**	-.3369166
selfemployed	-1.023457	.6260362	-1.63	0.102	-.2200165
unemployed	.8037459	.7454129	1.08	0.281	.1956066
pensionar	-1.3 79619	.990114	-1.39	0.164	-.2547458
ruraurbamig	2.069281	.5021176	4.12	0.000***	.4756047
water	-.9726937	.631626	-1.54	0.124	-.2371569
house	-.3513766	.5282331	-0.67	0.506	-.0835966
_cons	1.616352	1.403231	1.15	0.249	-
Number of obs = 203					
LR chi2(12) = 125.03					
Prob > chi2 = 0.0000					
Pseudo R2 = 0.4529					
Log likelihood = -75.501282					

Source: Own survey result, 2014

***, **, * significant at 1%, 5% and 10% level of significance, respectively

As it is evident from the above logistic regression, most of the variables included in the model have the

expected sign except rural urban migration and marital status. More of the econometric results of the variables were in agreement with the findings in the descriptive part of the analysis.

As we observe from the above table, there is a significant and negative relation between gender of household head and the probability of being poor. The coefficient associated with gender of the household head the probability of being poor for male headed households is lower than female headed households. This may be as described in the descriptive part those female household head are less educated which leads to generate lower income. The marginal effect of the variable also reveals that for male headed households the probability being poor decrease. This finding was similar with that of (FDRE, 2002).

Regarding the large household size there is a positive and significant relationship with the probability of being poor. Larger household family size is associated with higher chance of being poor. But it is somewhat difficult to conclude that larger house hold size causes poverty, due to the presence of circular causation. In some developmental economics theories, poverty is considered as the cause of having large family and the child are counted as source of income (labor force) special in les developed country. The marginal effect of household family size implies that for large household family size the probability of being poor increase.

The results regarding education are, increment in the school completion level of the household head have negative and significant impact on the household's probability of falling below poverty line. The previous literature also shows that there is significant relation between poverty and level of education. For example (Kedir, 2003) using total consumption expenditure as welfare measure, he found that there is a negative and significant relationship between educational level of the household head and incidence of poverty. From the theoretical foundation, the assertion that education at lower level has lower private benefit compared to the costs is a good explanation for this. The marginal effect of the variable reveals that for higher literacy level the probability being poor decrease.

The general result regarding education may be due to that if the head has attained a relatively better education, the other members have better probability of being educated, and there by the household may have better earning opportunities.

From all the household head occupation salary employed head is significant and negatively related with the probability to fail below poverty line. The marginal effect of the variable show that for salary employed household the probability being poor decrease.

The previous finding also shows that there is significant relation between poverty and level of employment. For example (Mekonnen, 2002) found that there is a negative and significant relationship between employment level of the household head and incidence of poverty. Accordingly, those households with the head employed in these sectors have significantly lesser probability of being poor. This may be due to the relative stability of the income earned from these economic engagements.

Similarly, those migrants from rural areas have higher chance of being poor. The positive relationship between those household coming from rural areas and poverty which contradict with researcher expectation may be due that, those people come to the town to escape from poverty in the rural areas while not still being able to do that. The marginal effect of the variable manifests that for rural urban migrated household the probability to be poor increase.

As regard to the categorical variables as a household head is large aged, marital status of the head self employed, unemployed, pensioner, have private tap water and house each of their contribution to poverty in the study area is insignificant.

Conclusion and Recommendation

That incidence of poverty is rampant among the surveyed households (42%), 0.42 the head count ratio 0.032 poverty gap and 0.015 as the severity index in the town respectively calls for urgent interventions aimed at curbing the fate of the poor. One way of doing this is studying the determinants of urban poverty by informing concerned parties as the factors are important infighting against poverty. Without the clear identification of the factors that account for the sporadic or continues impoverishment of life in the town it is really ridiculous to come up with concrete solutions. Simultaneously, critical identifications of the variables is important. However, because it is difficult to bring panaceas for the whole problems over night prioritization of the variables is paramount important.

Based on the findings of the study, the following directions of action may be recommended to tackle poverty in the town.

- Since most of the poor are concentrated around the poverty line as we observe from the poverty gap, policies should focus on absolute poverty rather than relative poverty among the poor.
- The study come up with female-headed households are more likely to be poor than households of which the head is men. The implication is therefore that promoting female education should be an important element of poverty reduction policies this is because education and fertility are negatively correlated such a policy could also have an impact on household size which is another important determinant of poverty in Nekemte.

- Since households with casually employed head are more vulnerable to poverty from descriptive analysis, new development projects should primarily consider the employment and income generating opportunities of those sections of the society with less paying jobs.
- Since educational attainment of the head of the household is found to be the most important factor associated with urban poverty clearly suggests ways of focusing on the value of education adequate education in addressing incidence of poverty. Specifically, Promoting higher education may also have important contribution to minimize poverty in Nekemte.
- Since household size is found to have positive relationship with poverty as the study depicted. This manifests for the residents of the town in that households with large size will fall into the hardcore sections of poverty easily than those who have not. Thus, in order to minimize such effects, family plans and/ or education of couples be provided by the concerned bodies. In the regard the town's health service can play a great role.
- Since rural urban migration of the house hold have positive and significant relation with probability to be being poor. Therefore concerned bodies should control it or increasing social service accessibility to them.

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Appendix
Appendix 1
Summary statistics result

Variable	Obs	Mean	Std. Dev.	Min	Max
Hhssex	203	.8423645	.3652997	0	1
Hhsage	203	35.39409	12.25037	17	78
Maritast	203	.8078818	.3949395	0	1
hhsfamilys~e	203	4.571429	1.790672	1	10
Hhheduc	203	11.51724	3.790745	0	17
Wageemploy	203	.3546798	.4795989	0	1
Selfemployed	203	.2758621	.4480526	0	1
Unemployed	203	.1477833	.3557623	0	1
Pensioner	203	.0738916	.2622412	0	1
Ruraurbamig	203	.2561576	.437589	0	1
Water	203	.8768473	.3294248	0	1
House	203	.7389163	.4403113	0	1
Hh annual income	203	7439.23	3916.24	1483	19281
Hh Annual exp	203	5872.921	2987.011	1765	16427

Appendix 2
Table 3.1 Equivalence scales

Age(In Year)	Male	Female
<1	0.25	0.25
1_4	0.4	0.4
5_6	0.56	0.56
7_8	0.64	0.64
9_10	0.76	0.76
11_12	0.8	0.88
13_14	1	1
15_18	1.2	1
19_59	1	0.88
>60	0.88	0.72

Source: A.M kedir (2003)

Appendix 3 Description of Explanatory Variables

Variable	Type	Description
Dependent		
hhexp1	Binary	=1 if equivalent consumption expenditure <z(poverty line =0 otherwise
Explanatory variables		
hhsz	Continuous	Number of persons in the household
Ageh	Continuous	Age of household head in number
female head	Binary	=1 if household head is male =0 otherwise
Married	Binary	=1 if household head is currently with spouse =0 otherwise
Education status of the household head		
Educational level of household head	Continuous	Educational Level of household head in number
Type of economic activity of household head		
Wage emp	Binary	=1 if household head is wage earner =0 otherwise
Self emp	Binary	=1 if household head is self employed =0 otherwise
Pensioner	Binary	=1 if household head is pensioner =0 otherwise
Unemployed	Binary	= 1 if household head is unemployed =0 otherwise
Other		
Rural urban	binary	=1 if the household head comes from rural =0 otherwise
Owned		
Water	Binary	=1 if the household his own water pipe =0 otherwise
House	Binary	=1 if the household his own house =0 otherwise

Appendix 4 Collinearity Diagnostics

Variable	VIF	SQRT VIF	Tolerance	R-Squared
Hhsex	1.09	1.05	0.9144	0.0856
Hhsage	2.60	1.61	0.3844	0.6156
Marstat	1.24	1.11	0.8063	0.1937
Famsz	2.55	1.60	0.3915	0.6085
Educhhh	1.67	1.29	0.5975	0.4025
Wagemp	2.65	1.63	0.3775	0.6225
Selfemp	3.77	1.94	0.2654	0.7346
Unemp	3.22	1.79	0.3105	0.6895
Pension	2.41	1.55	0.4154	0.5846
Mig	1.73	1.32	0.5783	0.4217
Water	1.23	1.11	0.8118	0.1882
House	1.11	1.05	0.9039	0.0961
Mean VIF	2.11			

Source own survey result 2014