



COLLEGE OF DEVELOPMENT STUDIES

CENTER FOR REGIONAL AND LOCAL DEVELOPMENT STUDIES

**ASSESSMENT OF URBAN MULTIDIMENSIONAL POVERTY AND ITS
EFFECTS ON LIVELIHOODS: THE CASE OF SELECTED *WOREDAS* OF
BOLE SUB CITY, ADDIS ABABA.**

BY

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**MA THESIS SUBMITTED TO CENTER FOR REGIONAL AND LOCAL
DEVELOPMENT STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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DECLARATION

I, Wondwosen Gebretsadik Armdie, do here by declare to Addis Ababa University School of Graduate Studies that this thesis is a product of my original research work, and it has not been submitted to any other university for any academic degree. Materials and information other than my own are dually acknowledged.

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Acronyms

CSA..... Central Statistics Agency

FGT..... Foster–Greer–Thorbecke indices

HH Household

MoFED....Ministry of Finance and Economic Development

NPC..... National Plan Commission

OPHI.....Oxford Poverty & Human Development Initiative

MPI..... Multidimensional Poverty Index

UN..... United Nations

UNCHS... United Nations Commission on Human Settlements (habitat)

UNDP....United Nations Development Programme

USD.... United States Dollar

Abstract

Poverty is a state or condition in which one lacks the financial resources and essentials for a certain standard of living. Poverty can have diverse social, economic, and political causes and effects. Assessing the multidimensional urban poverty and its effect on livelihood is vital in order to tackle the problem and suggest solutions. This study was designed to assess the Urban Multidimensional Poverty and its Effects on Livelihoods: The Case of selected Woredas of Bole sub city. A total of 296 household heads and 5 officers participated in the research and both descriptive and Econometrics analysis were employed in the data analysis. The determinants of multidimensional poverty are investigated using a logistic regression model. Alkire and Foster method of Multidimensional poverty measurement method were employed to assess the severity and deprivation status of the respondents. Thematic analysis was also employed to analyze the qualitative and the quantitative data of the study. It is analyzed by descriptive statistics and econometric technique. According to the descriptive analysis, 62 (20.94 percent) of the households in the sample were multidimensional poor. Hence, the severity level of poverty is around 23%.The results of logistic regression revealed that being female household, being employed household head, and being obtained loan are statistically significant determinants of households for being multidimensional poor. The study identified effects of multidimensional poverty on livelihoods and recommends that poverty alleviation requires coordinated commitment from the government, NGOs and CBOs, researches, the poor themselves, and other stakeholders. Moreover, livelihood diversifications should be given emphasis in all poverty reduction strategies and policies of the city.

Keywords: *Alkire and Foster method, Logistic Regression Model, Multidimensional Poverty, Urban poverty,*

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

It is well known that the world has experienced the fastest rate of urbanization in the 21st century due to high rural-urban migration and high rate of natural increase in urban population. However, in most less developed parts of the world, unlike the developed world, this accelerated urbanization was not accompanied with a commensurate change in economic and social change and well-being (Robert B.Potter and Sally Liyold Evans, 1998).Mainly triggered by numerous interwoven " push " and " pull" factors (Ibid), this uncontrolled urbanization has ended up with a widespread and chronic poverty in many of the urban centers of the developing world fueled by the effects of economic recession and structural adjustment (Satterthwaite, 2003) Besides, the costs of this unprecedented urbanization on the global south have been manifested in fiscal, financial, efficiency and equity terms (Linn, 1982).

Though the incidence of urban poverty has fallen in most parts of the globe in the post-World War II period, it has perpetuated widely in Africa to be an evident socio-economic problem, chiefly and specifically characterized by lack of purchasing power, inadequate access to social and economic amenities, few opportunities for formal income generation, poor health and nutrition, lack of asset ownership, casual employment and unemployment. (Evans, Potter and Liyold, 1998) These and other manifestations of urban poverty are highly deep-rooted and worst in Sub Saharan African region. Consequently, Sub-Saharan Africa, though the least urbanized region in the world and its urbanization rate has remarkably increased in the previous four decades, (Potter and Liyold Evans, 1998) is regarded as the most impoverished area in Africa as well as in the world, where 45-50 percent of the population is living below poverty line. (Yapa, Lakshman. , 1996) This deteriorated state of life in urban areas of the region is a fair reflection of the poor living condition of the wider population of the region. For instance, in 2004, about 41.10 percent of the entire population of Sub Sahara were earning below 1.08 United States Dollar (USD) per day (Ravallion, Martin and Shaohua Chen, 2007) Many national studies and studies of particular urban centers show that one-third to one-half of the nation's urban

population has incomes too low to allow them to meet basic needs while in many poor. It is projected that by the year 2050, about 66 % of the world population will live in urban areas and by the time poverty will become a predominant urban problem (UN, 2021) Scholars have coined the term urbanization of poverty to describe the situation. Urban poverty differs from rural poverty in terms of incidence, economics, demography and politics. The analysis, formulation and implementation of policies should thus be differentiated although policy condition is obviously needed.

Wage labor or the labor market is the main determinant of urban poverty (De Hann, 1997). Most of the urban poor earn income from the informal sector. While their earnings do not have as large a seasonal component as those of the rural poor, they are probably almost as unstable because they have little protection from sickness and injury and the unpredictable demand for their services. The poor possess little human capital and almost no physical capital that can be sold or consumed at the time of a sudden dip in their earnings. The poor, having no asset that can be used as collateral, also lack access to credit markets (Mills, 1994)

Other dimensions of urban poverty include poor environmental conditions that threaten health, changes in prices of basic goods, lack of social network, violence and insecure tenure status (Wratten, Wrateen, Ellen , 1995) Written (Ibid.) adds commoditization of urban economy, the negative effects of government policies and actions of government policies to the list of urban poverty dimensions. In terms of commoditization, the urban economy is more commercialized than the rural economies and this affects the lives of the urban poor by affecting their needs for subsistence, housing, education, etc. Increases in prices of food, house rent, and education fees will put pressure on the urban poor.

The urban poor are affected negatively by the state policies related to security of land. Land policies make the poor to live in an increasing terror of losing their only assets and personal possession. Insecure tenure forces the urban poor to live in self-built, usually illegal housing which is not provided with government services such as schools, health services and the like.

Ethiopia's population is currently one of the fastest population growing countries in the world, with a growth rate of 3.02% per year. If Ethiopia follows its current rate of growth, its population

will double in the next 30 years. The current population of Ethiopia is 126,527,060 based on interpolation of the latest United Nations date. (UN, 2023)

According to world population review estimation (2022), the population of Addis Ababa in the year 2028 is expected to grow to exceed 6.5 million residents. The annual growth rate of the city has been estimated in recent years to be 3.8%. The city is a thriving urban area in Ethiopia, and the jobs available in Addis Ababa, the availability of clean drinking water and plumbing, and the many shops and businesses ensure that growth will continue to be steady in this capital city well into the future. This fast urbanization can cause urban poverty if not properly managed. This study intended to assess urban multidimensional poverty and its effect on livelihood in selected woredas of Bole sub city.

1.2 Statement of the Problem

Many of the problems of urban multidimensional poverty are rooted in a complexity of resource and capacity constraints, inadequate government policies at both the central and local level, and a lack of planning for urban growth and management. Given the high growth projections for most cities in developing countries, the challenges of urban poverty and more broadly of city management will only worsen poor quality, overcrowded housing, risk of forceful eviction, lack of safe, readily available water supplies, poor provision for sanitation, drainage and solid waste collection, lack of access to healthcare and emergency services in many places if not addressed more aggressively.

In urban Ethiopia, the poverty rate is almost as high as the rural poverty rate in slum part of the city. Compared to both systemic and potential peers, urban unemployment rates are also high, and unemployment is closely associated with poverty. Like other developing countries, in Ethiopia, although the total rate of poverty begins to decline (World Bank, 2016) the rate of inequality became higher showing some people are getting poorer.

Moreover, according to UN World Urbanization Prospects (UN, 2023) , Addis Ababa is the largest urban center which have largest number of slum dwellers about 80% of the total urban residents in the country. Which indicate severe and vulnerability poverty level of the residents in the center of the city, might be suffered with high challenge in poor socio-economic infrastructures and multidimensional poverty condition. In addition, according to UN Habitat

(UN Habitat, 2007) report the largest area up to 70% of the total number of Addis Ababa population live in or below the subsistence level of income and suffered from deprivation in many dimensions of life.

Though in absolute terms poverty is still a rural phenomenon, there is currently a diffusion and growth of urban poverty. The number of urban poor is increasing at unprecedented level that might be fueled by the highest rural-urban exodus and alarming internal population growth. In the meantime, the urban economy has limited capacity to accommodate the unprecedented population explosion. More specifically, being employed in the formal sector is cumbersome.

The issue of urban poverty, however, merits a high place on the development agenda of the country mainly because of its increasing trend, the inability of urban centers to address the problem and the need to design appropriate strategies. Policies and strategies, however, have to be based on the needs, capabilities and activities of the urban poor for effective reduction of poverty. In other words, urban poverty reduction has to be tailored to the livelihood aspirations of the poor. This ensures a micro-macro linkages and bases poverty reduction strategies on micro level reality of the poor. In addition, appreciation of urban poverty and devising intervention strategies for the same have to be context specific since the poor face different opportunities and constraints in different areas of a city.

There are few studies about the multidimensional urban poverty (Netsanet A. and Andualem G , 2021) While the study by Netsanet focused on determinates of multidimensional urban poverty, Samuel's research (2021) discussed multidimensional urban poverty from the perspective of urban productive safety net. None of these studies dealt with the effects of multidimensional poverty on livelihood. Another reason is that, most of the studies in Addis Ababa have focused on income /consumption measures of urban poverty neglecting the non-income dimensions or livelihood aspects of the poor.

Bole sub city was selected for this study due to the fact that poverty is hidden in Bole sub city and it is considered as a better off sub city so that none of the researches indicated the situation faced by the urban poor in the area. Furthermore, this study is different from other studies in two perspectives: first, the socioeconomic status of Bole sub city is different from other sub cities for relatively it is newly established sub city. Second, this study incorporated economic and social determinant factors. This study attempted to contribute to the reduction of urban

multidimensional poverty by examining urban poverty in urban center by focusing on the livelihood of the poor households and on the sub city level strategies and institutions to reduce or alleviate multidimensional urban poverty.

1.3 Objectives

1.3.1 General Objective of the Study

The overall aim of this study is to assess the level and status of urban multidimensional poverty and investigate the degree or intensity of its effect on livelihood of residents of Bole sub city.

1.3.2 Specific Objectives

The specific objectives of the study are:

1. To assess the prevalence and intensity of multidimensional poverty of Bole sub city.
2. To investigate factors determining multidimensional urban poverty in the Sub city , and
3. To assess the effect of multidimensional poverty on livelihood of the household in the study area.

1.4 Research Questions

The specific research questions that the study tries to answer are;

1. How is the prevalence of multidimensional poverty in Bole sub city?
2. How is the intensity of multidimensional poverty prevailing in the study area?
3. What are the major determinant factors for poverty prevailing in the area?
4. How the poverty prevailing in the area does affected the living conditions of the households in the study area?
5. What are the survival and/ or of coping mechanisms of poor households in the study area?

1.5 Significance of the Study

Several studies have been conducted in the area of poverty in Ethiopia. Most of the studies, however, have been focusing on rural poverty and little has been done on the varied problems and intensity of urban multidimensional poverty and its effect on the livelihood of residents in city like Addis Ababa.

Urban areas are becoming more vulnerable, complex, rapidly changing entities. Urban multidimensional poverty is increasingly affecting residents in Addis Ababa as evidenced by increases in poor quality (slum) housing and in environmentally degraded areas. Their life and livelihood are highly influenced and at risk so that it needs to be studied. This study would help to assess urban multidimensional poverty of Bole sub city of Addis Ababa and reveal its effect on livelihood.

Beyond its importance as partial fulfillment for Masters of Arts in Regional and local development studies, assessing urban multidimensional poverty and its effect on the livelihood of poor households live in Bole sub city of Addis Ababa has the following importance:

- ❖ The study can give an input for the city administrators and stakeholders/actors who in one or another way are engaged in the development of the city.
- ❖ It can be used as the basis for further research on the area targeting urban multidimensional poverty.

1.6 Scope and Delimitation of the Study

Urban multidimensional poverty has been a global issue, it is particularly prevalent in developing countries like Ethiopia. Even though urban multidimensional poverty is a concern in many cities in Ethiopia, the study is going to be delimited to assess the effect of urban multidimensional poverty on the livelihoods of poor households in some selected Woredas of Bole sub city, Addis Ababa.

Although many variables can play roles in the study of urban poverty, in this study few variables, which are believed to play dominant roles, are going to be analyzed. These include: household demographic characteristics (such as sex, age, family size, and marital status), educational level,

employment/ occupations, and social services (like health, water, housing tenure, telephone & electricity etc) and Household livelihood assets or resources. The study examined these variables at a household level.

1.7 Limitation of the Study

Both time and budget constraints were the main challenges in the study. Moreover, during the data collection phase, some employees and household respondents were reluctant to answer the whole questions especially income and health related questions. The absence of structured secondary data on the study area was also source of limitation.

1.8 Organization of the Paper

This thesis proposal is organized into five chapters. The first chapter is the introductory part of the study. The second Chapter deals with the review of relevant literatures and the development of conceptual framework. The third chapter treats data presentation and analysis methodologies. Chapter 4 presents the results and discusses the findings of the study. Finally, Chapter 5 gives the conclusion and makes some recommendations based on its results

CHAPTER TWO

LITERATURE REVIEW

The literature review focuses on relevant issues needed to understand urban multidimensional poverty and livelihood. To do so, a review of both theoretical and empirical literatures on determinant of urban multidimensional poverty is going to be presented. In addition, relevant studies are going to be reviewed.

2.1 Conceptual Definition of Basic Terms

Absolute poverty: A person living in absolute poverty is not able to satisfy his or her minimum requirements for food, clothing or shelter. 1.90 dollar a day poverty line is accepted internationally as an absolute poverty line(Mack E, Schramm M, Klasen S (eds) (2009)).

Capabilities: A term developed by Amartya Sen (1992) that refers to the means which enable people to function. The term distinguishes intrinsic and instrumental capabilities (in-come, education, health, human rights, civil rights etc). Sen's conceptualization of poverty as capability deprivation focuses on the failure of some basic capabilities to function, for example, being adequately nourished, leading a long and healthy life, being literate

Capability deprivation: Poverty defined in relation to the failure to achieve basic capabilities such as being adequately nourished, leading a healthy life or taking part in the life of the community. The emphasis on capabilities shifts focus away from money-based measures such as income or expenditure onto the kind of life the individual can live Sen, A.K. (1992).

Censored head count: The censored headcount ratio of an indicator denotes the proportion of the population that is multidimensional poor and deprived in that indicator at the same time (Alkire and Foster (2007, 2011a)

Chronic poverty: Poverty experienced by individuals and households for extended periods of time or throughout their entire lives. Also called ‘persistent poverty’. Chronic poverty must be distinguished from transitory poverty or being non-poor (Barun Kumar Thakur, 2020)

Coping strategy: how a household responds when faced with an unexpected event such as illness, drought or unemployment. Typical responses include taking children out of school, drawing on support from the ex-tended family or other households, or reducing expenditure on food and other items. In addition, some households may migrate (Coping Strategies Index, Daniel M. 2008).

Dependency ratio: The ratio of economically-active household members to those who are economically dependent (Alexia P. and Bernhard H. , 2018) .

Deprivation: A lack of welfare, often under-stood in terms of material goods and re-sources but equally applicable to psychological factors, relative to the local community or the wider society or nation to which an individual, family or group be-longs (Handley et al., 2009).

Dimensions of poverty: The individual and social characteristics of poverty such as lack of access to health and education, powerlessness or lack of dignity. Such aspects of deprivation experienced by the individual or group are not captured by measures of income or expenditure (Handley et al., 2009).

Gini coefficient: An aggregate numerical measure of income inequality ranging from 0 (perfect equality) to 1 (perfect inequality).

A **household** is a group of people who eat from a common pot, and share a common stake in perpetuating and improving their socio-economic status from one generation to the next.

Headcount ratio (also called incidence) it shows the change in the percentage of people who are multidimensionality poor (but not the intensity of poverty or the number of poor people). (Carol M. Kopp, 23)

Human capital Factors such as knowledge, skills and health, which increase the productivity of the individual

Human Development Index (HDI) An index introduced by UNDP in 1990, which combines the three measures of life expectancy, educational attainment (itself a composite of literacy and school enrolment) and GDP per head. The index theoretically ranges from 0 for the least developed to 7 for the most

Human Poverty Index (HPI) A composite index introduced by UNDP in 1997, which focuses on those who do not achieve minimum standards of health, education and living conditions. This index contrasts with that of the HDI, which measures average achievements

Incidence of poverty: shows the proportion of people who are under the poverty line. (Carol M. Kopp, 23)

Intensity The intensity of multidimensional poor people is measured by the average number of weighted deprivations they experience (Carol M. Kopp, 23).

Indicator A numerical measure of quality of life in a country. Indicators are used to illustrate progress of a country in meeting a range of economic, social, and environmental goals. Since indicators represent data that have been collected by a variety of agencies using different collection methods, there may be inconsistencies among them

A livelihood comprises the capabilities, assets and activities required for a means of living; and household livelihood is sustainable when it can cope with and recover from stresses and shocks maintaining its capabilities and assets, while not undermining the natural resource base (De Haan, 2002).

Livelihood outcomes: what goals they are pursuing, the living that results from their activities (De Haan, 2002).

Livelihood resources: what people have, variously referred to as stocks and stores, assets and capital (both tangible and intangible), E.g Human resources (Educational levels, skills, labour) , Natural resources (Access to land) , Physical resources (Infrastructure), Financial resources (wages , credit), Social resources (Social networks) (De Haan, 2002).

Livelihood strategies: what people do (e.g. wage labor, migration), Petty trade, Employment, Remittance) (De Haan, 2002).

Marginalized people: Those who are physically or socially remote (see also exclusion). They are by-passed by most economic, political and social activity and likely to have very precarious livelihoods

The Multidimensional Poverty Index: is the product of the incidence of poverty (proportion of poor people) and the intensity of poverty (average deprivation score of poor people) UNDP , 2022.

Poverty: “Poverty is conceptualized the inability to attain a minimum standard of living and lack of resources to attain a socially acceptable type of lifestyle” (UNDP, 2022).

Poverty headcount: Refers to the proportion of individuals, households or families that falls under the poverty line. Divides the number of people identified as poor by the total number of people in the community. The headcount ratio ranges from zero (nobody is poor) to one (everybody is poor) (UNDP, 2022).

Poverty line: represents the level of income or consumption necessary to meet a set of minimum requirements to feed oneself and one’s family adequately and/or to meet other basic requirements such as clothing, housing and healthcare (UNDP, 2022).

Relative poverty: Poverty defined in relation to the social norms and standard of living in a particular society (UNDP, 2022).

Seasonality

There is a well-known association between seasonality and health, although little work has been done concerning the particular links between seasonality and urban health. In low-income, overcrowded urban areas, the wet season is strongly associated with exposure to water-borne diseases such as cholera and diarrhea (Feachem, Cairncross and, 1983) In addition, breeding conditions for mosquitoes which transmit malaria and dengue are affected by seasonality. Environmental events may also be seasonally determined – for example, flooding and landslides which may affect living conditions in precarious housing.

Shocks

From an urban health perspective, shocks represent a sudden exposure to health risk factors. For example, loss of employment, separation from a spouse, migration, illness/incapacitation or death in the family can increase stress and in turn lead to mental ill-health. Such shocks, or ‘life events’, may also impact on physical health through, for example, the loss of earnings and subsequent lack of finance to spend on medicine, food, shelter and health services. The effect of shocks may be buffered by assets such as social capital (De Haan, 2002).

Trends: Trends can change people’s exposure to health risks. They provide a dynamic backdrop to health status and can have both positive and negative health impacts .Within the context of developing country cities, certain key trends can be identified which have particular implications for health (De Haan, 2002).

Vulnerability is defined as the risk of falling into poverty in the future, even if the person is not necessarily poor now; it is often associated with the effects of “shocks” such as a drought, a drop in farm prices, or a financial crisis (De Haan, 2002).

2.2 Theoretical Literature

2.2.1 The Conceptualization of Poverty

Different organisations give different meaning for poverty. The meaning of poverty for World Bank people’s income below US \$1.9 considered as poverty. According to UNDP the poverty defined as those who live in the environment that doesn’t allow them to develop their full potential (UN,2019).

The relative deprivation approach defines poverty in relation to either average levels or social norms. In other words, it refers to consumption equal to a proportion of total or average consumption. The approach is developed in the context of developed country and it attempts to relate the definition of poverty to its potential causes such as economic exploitation and problems of social marginality (Amis and Rakodi, 1994)

Poverty is pronounced deprivation in well-being, lack of income and assets to attain basic necessities, lack of access to education and other basic services, and vulnerability to adverse shock are the main causes of poverty. Poverty is a multidimensional and dynamic phenomenon. It has multiple causes that exhibit economic, social and political characteristics and poverty

reduction requires multi-dimensional approaches and strategies. We have reached an era in which the moral and economic justifications for reducing and even eliminating chronic poverty have received international support. Addressing the problems of poverty has become one of the priority policy targets of governments and yet the task has proved itself as daunting. Poverty reduction policies at the national level also need to have accurate mapping of poverty in the country and across sectors as well as urban-rural manifestation of their strategies (UN, 2019).

Uneven level of economic development and growth of income across these features requires strategies that incorporate these variables to address chronic poverty. Poverty is multidimensional and complex in nature and manifests itself in various forms making its definition difficult. No single definition can exhaustively capture all aspects of poverty. Poverty is perceived differently by different people, some limiting the term to mean a lack of material well-being and others arguing that lack of things like freedom, spiritual well-being, civil rights and nutrition must also contribute to their definition (UN, 2019).

The concept poverty goes beyond the lack of productive resource materials, income and sustainable livelihood. But it also entails hunger, malnutrition, lack of access for basic services like education, health facilities and other issues like discrimination, exclusion and lack of opportunities in participating during decision making activities. According to UN report more than 736 million peoples lived below the poverty line in year 2015. And peoples around 10% of the total world population was struggling to get the necessary human needs like education, health and access to clean water and sanitation (UN, 2019).

2.2.2 Multidimensional Poverty

Poverty has traditionally been measured by one dimension, usually income or consumption. In this analysis, a basket of goods and services considered the minimum requirement to live a non-impooverished life is valued at the current prices and people who do not have an income sufficient to cover that basket are deemed poor. Income poverty certainly provides very useful information. But it does not seem to be enough for several reasons (Alkire and Sntos, 2010).

Income is not always a good guide to whether people have access to what they find valuable and necessary in life. One might expect that income poverty is a sufficiently good proxy for other deprivations such as malnutrition, low education, and poor housing conditions. Surprisingly, it

may not be. Some important needs are not satisfied in the market, or markets function very imperfectly. In those cases, non-market institutions are required to provide for those needs. One example of this is access to clean water and education, which are sometimes provided by the state. Thus, a family may enjoy the minimum income and yet still not satisfy some basic needs. On the other hand, in certain areas with a very strong presence of the state or NGOs, households who do not reach the minimum income level may access goods and services anyway (Alkire. S and M.E Santos, 2010).

Second, each household has a different capacity to convert income into satisfaction of needs. Households with disabled people, households in rural areas far away from markets and public services, and households with very low educational levels may not be able to access the basket of goods and services that in theory they should be able to access with the income they earn. Third, income is merely a means to ends. It is the ends which are valuable, not the means. We are interested in whether a person has certain cognitive skills, not whether she has the income to attend school. We are interested in whether a person is well nourished, not whether she has the income to be so (Santos, Alkire.S and M.E, 2010).

And fourth, income poverty is unidimensional: if we know a person is income poor that is all we know about them. Whereas if we know they are multidimensionally poor, we can then (with the AF method) take the next step and see how they are poor –look at the deprivations they experience at the same time. This gives direct and important information for poverty reduction (Alkire. S and Santos, 2010).

Recognizing these limitations has resulted in the creation of multidimensional poverty measurement methodologies, as well as a rising demand from policymakers to create official poverty indicators of this sort to replace income poverty measures. The recent availability of household survey data, which allows for the implementation of multidimensional initiatives, has fuelled this trend.

Axiomatic and knowledge theory techniques, fuzzy set theories, and latent variable methods are some of the methodologies for multidimensional poverty calculation that have been proposed (Alkire and Foster, 2011). The axiomatic approach suggested by Alkire and Foster (2011) is the

one that has been empirically applied on the largest scale through the Multidimensional Poverty Index (Alkire and Jahan, 2018) .

At the household and individual level, the Multidimensional Poverty Index (MPI) identifies multiple deprivations in health, education, and standard of living. It's focused on micro data from household surveys, and unlike the Inequality-adjusted Human Development Index, it necessitates that all of the metrics used in the calculation come from the same sample. Each person in a given household is categorized as poor or non-poor based on the weighted number of deprivations his or her household, and therefore he or she faces. The information is then combined to create a national poverty index. The Multidimensional Poverty Index (MPI) assesses the extent and magnitude of multidimensional deprivation (a count of people living in multidimensional poverty) (the average deprivation score experienced by poor people). It allows for comparisons across nations, continents, and the globe, as well as comparisons within countries, by ethnic group, urban or rural region, and other key household and community characteristics. The MPI is a good complement to income-based poverty programs (Alkire and Jahan, 2018).

2.2.3 Methods of Multidimensional Poverty Analysis

There is controversy to select preferable devise to measure the multidimensional poverty with multiple indicators. There were two main issues during the debates between the policy makers. The first issue was on how to set the appropriate weight for each indicator components with appropriate multidimensional poverty score and the other issue was the minimum threshold in order to be considered in poverty in which a person must be below poverty threshold.

2.2.4 The Alkire and Foster Measurement Methodology

Since (Sen AK, 1976), the recognition of who is disadvantaged and the aggregation of knowledge about poverty across society, have been the two key measures in assessing poverty. The recognition of who is bad in an income scale is relatively simple. An income poverty line divides the population into poor and non-poor people based on the amount of money required to buy a basic basket of goods and services. The properties that should be fulfilled by the poverty index aggregating poor individuals' data into an aggregate measure are given more focus. The (Foster, 1984) family of indices are the most widely used **Foster–Greer–Thorbecke (FGT)** indices. The recognition of the disadvantaged in a multidimensional sense is more complicated. The Alkire & Foster approach incorporates counting approach, a method for distinguishing the

disadvantaged based on the number of (weighted) deprivations with a method for aggregation based on a multidimensional extension of the unidimensional FGT family of steps.

Table 2. 1: Multidimensional poverty Indicators and their weight

Dimensions of Poverty	Indicator	Deprived if living in the household where...	Weight
Health	Nutrition	An adult under 70 years of age or a child is undernourished.	1/6
	Child mortality	Any child has died in the family in the five-year period preceding the survey.	1/6
Education	Years of schooling	No household member aged 10 years or older has completed six years of schooling.	1/6
	School attendance	Any school-aged child is not attending school up to the age at which he/she would complete class 8.	1/6
Standard of living	Cooking Fuel	The household cooks with dung, wood, charcoal or coal.	1/18
	Sanitation	The household's sanitation facility is not improved (according to SDG guidelines) or it is improved but shared with other households.	1/18
	Drinking Water	The household does not have access to improved drinking water (according to SDG guidelines) or safe drinking water is at least a 30-minute walk from home, round trip.	1/18
	Electricity	The household has no electricity.	1/18
	Housing	Housing materials for at least one of roof, walls and floor are inadequate: the floor is of natural materials and/or the roof and/or walls are of natural or rudimentary materials.	1/18
	Assets	The household does not own more than one of these assets: radio, TV, telephone, computer, animal cart, bicycle, motorbike or refrigerator, and does not own a car or truck.	1/18

Source: Adopted from (Alkire & Foster, 2011)

Global Multidimensional Poverty Index 2022

The 2022 global Multidimensional Poverty Index (MPI) uses the most recent comparable data available for 111 countries — 23 low-income countries, 85 middle-income countries and 3 high-income countries. These countries — home to 6.1 billion people, 1.2 billion (or 19.1 percent) of whom live in poverty — account for about 92 percent of the population in developing regions. The global MPI shows who they are, where they live and what deprivations hold them back from achieving the wellbeing they deserve. MPI values, the incidence and intensity of poverty, and component indicators are disaggregated by age group, rural and urban areas and gender of the household head as well as for 1,287 subnational regions. Trends in reducing MPI values are available for 81 countries and 810 subnational regions, as well as for age groups and areas. These

estimates help in meeting the central, transformative promise of the 2030 Agenda for Sustainable development: to leave no one behind (UNDP, 2022).

In the global MPI, people are counted as multidimensional poor if they are deprived in one-third or more of 10 indicators (see figure 1), where each indicator is equally weighted within its dimension, so the health and education indicators are weighted 1/6 each and the Standard of living indicators are weighted 1/18 each. .

The global MPI begins by establishing a deprivation profile for each person, which shows which of the 10 indicators they are deprived in. Each person is identified as deprived or non-deprived in each indicator based on a deprivation cutoff (Table 1). In the case of health and education, each household member may be identified as deprived or not deprived according to available information for other household members. For example, if any household member for whom data exist is malnourished, each person in that household is considered deprived in nutrition. Taking this approach which was required by the data does not reveal intra household disparities, but it is intuitive and assumes shared positive (or negative) effects of achieving (or not achieving) certain outcomes.

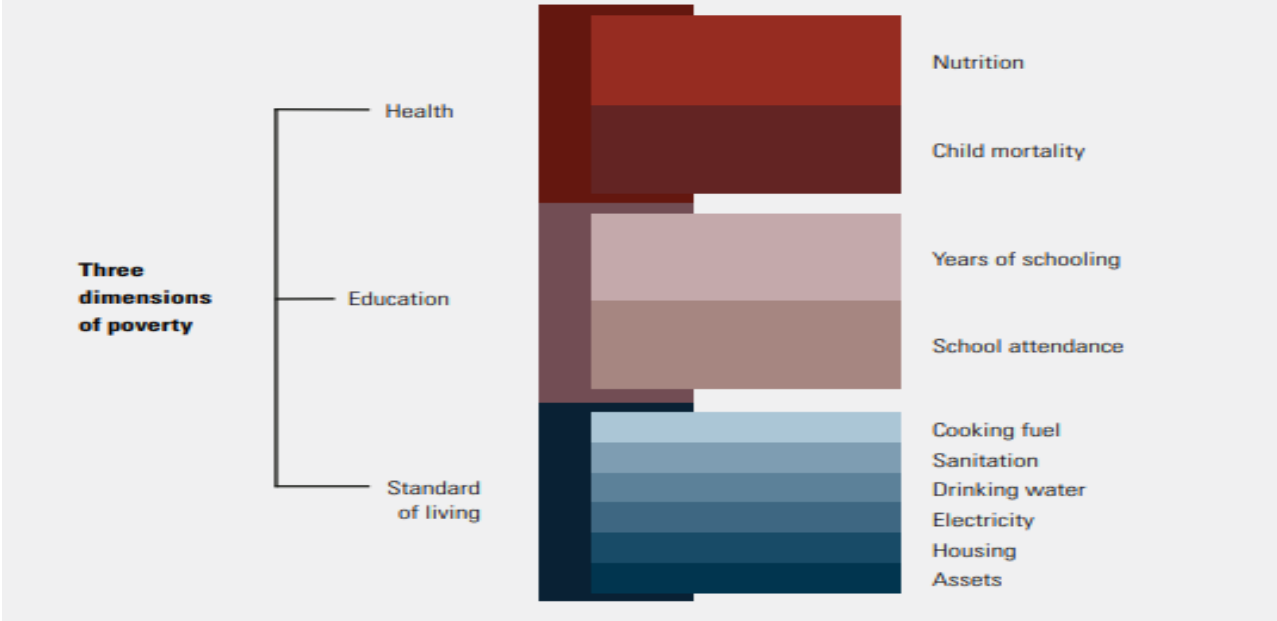


Figure 2.1: Three dimensions of poverty

Source: Oxford Poverty and Human Development Initiative 2022

The intensity of multidimensional poor people is measured by the average number of weighted deprivations they experience. The MPI is the product of the incidence of poverty (proportion of poor people) and the intensity of poverty (average deprivation score⁵ of poor people) and is therefore sensitive to changes in both components. The MPI ranges from 0 to 1, and higher values imply higher poverty (UNDP, 2022).

2.2.5 Decomposition in Multidimensional Poverty

2.2.5.1 Decomposing by Population Sub-groups

The MPI's capacity to be decomposed by population sub-groups is a key function. When looking at country-level projections, the question is which population sub-groups are applicable to a given country, and whether the data available allows for representative estimations. Urban vs. rural, regional (districts/provinces/states), religion, caste, and ethnicity are all possible sub-groups to consider. Finally, any decomposition must be performed with data that is descriptive of those classes. (Alkire and Jahan, 2018).

2.2.5.2 Decomposing by dimensions and indicators

Decomposing by indicators in the same way, one may look at the censored headcount ratios as well as the contribution of deprivation in each indicator. Each one, once again, tells a different story. It's also possible to compare raw and censored headcount ratios to see which deprivations were omitted and whether or not this improved accuracy (Alkire and Jahan, 2018).

2.3 Determinants of Multidimensional Poverty

This research will primarily be concerned with assessment of urban multidimensional poverty and its effects on livelihood. Determining factors of urban multidimensional poverty, as well as its scale and dynamics of poverty should be taken in to consideration. These are critical for reducing the effect and the level of poverty. According to different sources, a household's poverty status is influenced by a range of factors (Verdier-Chouch, 2007) . The study basically considers 1. The family size of the household, 2. The number of children or elders/unemployed size, 3. The age of the household head, and his or her educational level together with health status and 4. Living standard such as access to infrastructure.

2.4 Urban Poverty

The world is becoming increasingly urbanized. The year 2010 signified a historical moment in which more than 50 percent of the world population began to live in urban areas. This share of world urban population has reached 55 percent in 2019. Sixty seven percent (67%) of the population of poor countries will live in cities and towns by 2050 and 90 percent of the estimated 2.5 billion new urban residents by 2050 will reside in Asian and African cities (UN, 2015).

Ethiopian urban population in 2037 by (Egis International, 2016) will be 50 million which is higher than that of CSA - about 43 million. The urban population is expected to significantly increase three fold in the coming 25 years.

This rapid urban growth is taking place in those parts of the world where governments are least prepared to provide urban infrastructure, and urban residents are least able to pay for such services or cope with natural disasters. It is these parts of the world where the highest levels of poverty and unemployment are to be found. The inevitable result has been the flourishing of urban informal settlements and dilapidated shelter conditions (Watson V, 2009).

Urbanization though a beneficial socio-economic phenomenon with far reaching economic, demographic, ecological, political consequences, can also pose great challenges to society. One of the undesirable faces of urbanization is the urbanization of poverty which means that poverty also urbanizes or gets intensified with urbanization.

Urban poverty thus becomes an issue that needs to be tackled with a sense of urgency if urban residents are to enjoy the benefits of urbanization. Despite this, however, there is a tendency to underestimate urban poverty. One of the reasons is the underestimation of poverty line by national statistics which use a higher poverty line for both rural and urban poor while in actual fact people lack the necessary income needed to cover the cost of basic necessities like safe drinking water, adequate quality housing, adequate sanitation and children's education (Satterthwaite, 1997) argues that a distinction between rural and urban poverty is problematic because first the categories of rural and urban are arbitrary and second such distinction may shift attention away from national and international identification of the structural causes of poverty to city level solutions.

Despite this, it is possible to find certain characteristics of poverty which are closely identified with urban poverty. According to, (Wratten, 1995) these attributes of urban poverty are grouped under four categories: urban environmental and health risks, vulnerability arising from commercial exchange, social diversity, fragmentation and crime, vulnerability arising from the intervention of the state and police. (Beal and Fox, 2006) identified the followings that characterize urban poverty. These are:

- 1. Reliance on monetized and informal economy:** In urban areas, cash income is needed to pay for different expenditure: transport, schools, housing, water, food, health care, child care etc. These costs are higher in urban areas and form significant parts of the poor's expenditure. In urban settings, people have to pay for their food since they cannot grow their own crop or raise livestock. Similarly, many tenant households spend more than a third of their income on rent (Satterthwaite, D and Tacoli, C, 2002) The poor get their income from wage labor forming the latter to become an important determinant of urban poverty. Consequently different characteristics of the labor market such as regulation, minimum wage legislation, hiring and firing, employment protection etc. influence urban poverty. An important aspect of labor market that influences poverty is the informal economy since the poor tend to engage heavily in the informal economy.
- 2. Inadequate housing and insecure tenure:** The poor generally live in substandard housing and informal settlements. Houses in these settlements are makeshift houses which are unhygienic and overcrowded with no connection to the formal structures such as drainage and sewage system. The poor cannot access land in cities, and as a result non-formal occupation of land or informal tenure emerges. Such illegal occupations usually emerge in peripheries, or environmentally risky areas such as steep slopes, ravines, river banks or areas susceptible to landslides and pollution (Pyne Jeffrey, 2002).
- 3. Lack of access to basic services:** The poor in urban areas suffer from inadequate access to health, education, water, sewerage etc. with its own health burden implication. Though urban dwellers may be better off than rural dwellers in getting access to services, the poor in urban areas pay high costs for such services. For instance in Addis Ababa the existing water charges favor middle and high income people with own connection compared to the poor who depend on water vendors to access water (Dierig Sandra, 1999)

- 4. Vulnerability to diseases and environmental hazards:** The poor in urban areas live in poor environmental conditions. For instance, because of low income, the poor live in cheap, high density, environmentally poor and physically dangerous locations near industrial facilities, toxic water, solid waste pumps, railway lines etc. (Meikle, 2002). This situation exposes the poor to several diseases such as cholera, malaria, diarrheal diseases, intestinal worms etc
- 5. Social fragmentation:** In general cities are socially more fragmented than rural areas with a consequence of poor community and poor social ties (Meikle, 2002). Social disintegration and community breakdown in cities aggravate the conditions of the poor in urban areas and increase their vulnerability.
- 6. Exposure to Violence, Crime, War and Terrorism:** Crime and violence are major development problems in urban settings. Under this situation, individuals are negatively affected. Though crime happens throughout the city, its intensity is higher in informal settlements where the poor live and work and the poor residents become the main victims. (UN Habitat, 2002)

While the above characteristics provide the features of urban poverty, the causes of urban poverty are controversial. Two views prevail regarding the causes of poverty. These are the 'culture of poverty' hypothesis which attributes poverty to the personal failures of individuals and the 'marginalization' hypothesis which attributes poverty to the failures of structured political and economic system in which the poor find themselves. Empirical evidences have highlighted that the former cannot explain poverty since the poor are found to be socially cohesive and well organized, culturally optimistic and eager to improve their housing situation and education of their children. The poor also make an important contribution to the city's informal economy (Ellen Wratten, 1995). Instead poverty is caused due to discriminatory structures which denied the poor to realize their aspirations. This is in line with the structural explanation of poverty and resonates with the World Bank's position that poverty can be attributed to "structural constraints and inefficiencies in the urban economy including excessive protection of capital intensive industry, ineffective public policies and weak public institutions". Beyond this, it is also important to note that the causes for individual impoverishment could be associated with a particular point in the life cycle of families caused by sudden shocks, migration

etc. Such shocks may include the loss of adult family income earner, the confiscation of street traders stock, the demolishing of housing because of illegality, the high cost of illness in the family etc.

2.5 The Concept of Livelihood and the Livelihood Framework

2.5.1 Livelihood defined

Livelihood is the way people (rich and poor alike) earn a living, be it in town or in the rural areas or both, it is not necessarily the same as having a regular occupation or employment. But drawing from Chambers & Conway (Chambers and Conway., 1992), a livelihood comprises the capabilities, assets and activities required for a means of living. In his “notes for a geography of livelihoods”, (Painter, , 1996) defined livelihood strategies as “how individuals, households or other corporate groups gain access to, use and exercise control over any number of resources that they identify as important for their well-being”. In other words, livelihood strategies are the activities that people undertake and the choices they make to achieve their livelihood goals. In fact, livelihoods are becoming increasingly complex, multi-local and multidimensional (Kaag et al, 2004).

The livelihoods concept is, therefore, a realistic recognition of the multiple activities in which households engage to ensure their survival and improve their well-being (Rakodi, 2002a). This may involve deploying different activities in one locality (e.g. in town), but also spreading activities over different locations (e.g. in town and in the rural areas) (Kaag et al, 2004). According to De Haan, the poor in particular undertake manifold activities which yield food, housing, and a monetary income. Even then, (Kaag et al., 2004) warn that

Livelihoods are never stable and especially poor people in developing countries regularly worry about whether there will be enough food for their families and whether they will have work, money etc. When confronted with misfortune in the family, i.e. illness, income failure or on a larger scale, i.e. economic crisis. The consequences are often most severe for vulnerable categories of people.

In the early 1990s, (Dietz., Drujven and Foeken., 1992) found that households had various livelihood options: peasant households could be engaged in different household livelihood strategies, as micro decision units and partly in inter-household net-works of mutual assistance.

They attempted a typology of livelihood strategies that included accumulation strategies (improving the means of production); betterment strategies (improving the consumption situation); sustenance or adaptive strategies (social maneuvering to preserve a consumption and/or wealth level); mechanisms to cope with seasonal stress; and survival strategies to cope with exceptional crises. (Griep, 2001) argues that when times are normal, people's activities are called livelihood strategies, but in times of crisis they change into coping or survival strategies. However, she accepts that in the last few decades one cannot speak of a "normal situation" and concludes that coping strategies have become part of daily life and have changed into adaptation strategies. There are as many pathways as there are people because people have different experiences (habitus) and different assets and resources at their disposal when interacting with their environment and other people, and consequently take different decisions when confronted with similar environmental conditions.

2.5.2 The Livelihood Framework or Approach

According to the livelihood framework or approach, a household's livelihood strategy, and so its level of well-being, depends on the assets or resources it has access to (see below); the factors that mediate their access (for instance, gender relations or how markets operate); and contextual factors (such as macro policies or shocks). Both local factors and wider regional, national and global factors are important influences of living conditions. This is stressed by (De Haan, 2002) when explaining that nowadays livelihood, even in the remotest corners of the world, is subject to a multitude of influences from a broader national and international economic, social and political context.

The livelihood approach distinguishes five "vital" assets, although their boundaries are not always that clear nor is the categorization exhaustive (Rakodi, 2002). These are human, natural, physical, financial and social assets or resources. Although the livelihood approach distinguishes five assets, the importance of "cultural asset" in livelihood studies should also be recognized. Such cultural aspects as language, taboos, cultural institutions, religion, etc, may have an important influence on an individual's or a house-hold's pursuit of livelihoods.

2.5.3 Household Livelihood Assets or Resources

1) Human resources: capabilities, skills, experience, labour, knowledge, creativity, health, etc. These are important to the fulfillment of productive and reproductive tasks. Capacity to work is

the main asset of the urban poor. Lack of skills and education affects the ability to secure a livelihood in towns more directly than it does in the rural areas.

2) Natural resources: land, water, pastures, etc. Natural assets may be less significant in an urban setting (Meikle,Sheilah, 2002), but with increasing reliance on agriculture (both urban and rural), access to land, security of tenure and function is largely an important “asset” to urban dwellers directly or indirectly.

3) Physical resources: basic infrastructure and services (shelter, transport, water, energy, communications, hospitals), equipment, tools, inputs, food stocks, household assets, live-stock, etc. Payne (ibid) argues that land in urban areas can as well be categorized as a physical asset that enables households to access shelter, has locational attributes that provide access to other livelihood possibilities and has investment potential.

4) Financial resources: savings, loans, credit, wages/salaries, pensions and remittances. Urban households are highly monetized and so access to a monetary income is essential for survival.

5) Social resources: formal and informal networks from which various opportunities and benefits can be drawn by people in their pursuit of livelihoods. These are mainly reciprocity and trust embedded in social relations, social structures and societal institutional arrangements. Closely linked to social resources are political resources based on access to the political process and decision-making (Meikle,Sheilah, 2002) elaborates that the urban poor are linked into structures of governance through their dependence on or exclusion from the delivery of infrastructure and services by municipal authorities

Every group, household and individual has “a stock of assets” at its disposal to achieve a sustainable livelihood. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base (Rakodi, 2002). It embodies resilience, i.e. the ability to cope, adapt and improve well-beings. In other words, resilience is the ability to mobilize assets to exploit opportunities and resist or recover from the negative effects of the changing environment. Inability to cope and recover is mainly caused by a lack of resources, alternatives and buffer capacity, associated with poverty. The shocks and stresses can be natural (e.g. earth-quakes, floods, and droughts), political (violent conflicts) and economic (unemployment, price policies).

This “stock of assets” can be stored, accumulated, exchanged or depleted and put to work to generate a flow of income or other benefits. In that case, the strategies adopted by the household aim to cope with and recover from stresses and shocks; to maintain or improve capability or assets; and to offer sustainable livelihood opportunities. As such, access to resources or assets allows an under-standing of why people survive in the way they do and each individual or household decides on a choice of livelihood strategies on the basis of access to one or a combination of the “stock of assets” available (De Haan , 2002) This is because the existence of assets alone is not sufficient to promote livelihoods – what is important is their accessibility (Meikle,Sheilah, 2002).

Even though the livelihood framework was developed and later widely applied to explain rural livelihoods, the sustainable livelihoods framework has certain key concepts that are valuable for a better understanding of urban poverty. The importance for most poor households of a stronger asset base both for higher incomes and for reducing vulnerability to shocks and stresses is valid for both urban and rural areas (Satterthwaite, D and Tacoli, C, 2002)

Whereas experience with the livelihoods approach is strongly biased towards rural areas, interest in urban applications is increasing. Many urban households rely on a combination of both rural-based and urban-based assets and sources of income. As in the rural areas, access to land (natural resources), labor and skills (human resources), tools (physical resources), income (financial resource) and social resources are minimum requirements to sustain one’s livelihood in town.

2.6 Urban Livelihood Strategies

As in rural areas, urban households seek to mobilize resources and opportunities and to combine these into a livelihood strategy (Rakodi, 2002a). Urban households, rich or poor, have adopted a number of livelihood strategies in their attempts to manage (in particular but not necessarily restricted to) the changes in their economic environment and circumstances. However, as is already clear from the above, because of the economic, environmental, social and political context in which they live, the livelihood strategies of urban (poor) households may be different from those of their rural counterparts. From an urban perspective, (Potts, 1997) provides the following useful definition of a strategy:

A “strategy” implies some alteration in an individual’s or household’s (usually economic) behaviour, in order to lessen the adverse impact of, for example, declining incomes or deteriorating infrastructure or services. A strategy may be a long-term planned response to circumstances (e.g. embarking upon urban agriculture) that yields generally positive benefits.

2.7 The Livelihood Framework in Urban Setting

The fact that urban poverty reduction has to address the livelihood aspirations of the poor is a compelling reason for using the sustainable livelihood (SL) approach. The SL approach, as analytical framework, focuses on the assets of the poor and the strategies they employ to make a living. The approach provides a framework to assess resources and assets available to households and how they are linked to strategies to reach desired outcome. According to the framework, households decide to mobilize and allocate their resources (their assets and capabilities). This results in activities (directly income earning activities; coping strategies etc). Income resulting from the activities are allocated among competing demands (consumption, investment, saving) to bring desired outcome which includes basic needs (health, water, education, food, shelter etc). The assets, strategies and outcomes are seen in contexts-the political, economic, social and institutional context in which households are situated. The contexts, in turn, decrease or increase vulnerability. Vulnerability is also related to resources or assets that an individual or household holds. (Gebre-Egziabher T. , 2011).

The Core of SL Approaches (according to (Gebre-Egziabher T. , 2011) are:

Vulnerability: This refers to the insecurity or well-being of individuals or communities in the face of changing environment. The changes could be in the form of sudden shocks, long term trends or seasonal cycles. The extent of vulnerability relates both to the resilience resisting and recovering from external threats.

Assets: These refer to the resources on which people draw to carry out their livelihood strategies. The resources include different forms of capital: financial, human, social, physical, natural and political capital. People may not always possess the assets they use. They have different extent of access to and control over these assets. In the SL approach, the issue of access and how access can be improved is significant.

Policies, Institutions and Processes (PIPs): These are the broad range of social, political, economic and environmental factors determining peoples' choice and shaping livelihoods. They determine access to the various types of assets.

Livelihood Strategies: These refer to planned activities people undertake to build their livelihoods. Included under livelihood strategies are coping strategies to respond to shocks in short-term and adaptive strategies to improve circumstances in the long term.

Livelihood Outcomes: These are the results of peoples' livelihood strategies and feed back into the vulnerability context and asset bases. While successful strategies help build asset bases, poor livelihood deplete asset bases and increase vulnerability.

2.8 Review of Empirical Literature

Researches in the past indicated variations in the forms and dimensions of poverty in categories such as rural- urban settings. While rural poverty is often marked by its connection with agriculture and land, urban poverty is said to be associated with heterogeneous economic and social factors.

As cited in Shewaye, (Shewaye T, 2002), the World Bank sees urban poverty as a multi-dimensional phenomena characterized by cumulative deprivation where one form of deprivation leads to another. The various dimensions of urban poverty include: income, health, education, tenure insecurity, personal insecurity and disempowerment among others. The multi-faceted nature of urban poverty is also noted in (Tizeta M., 2001). Accordingly, the various features of poverty that characterize most of the urban poor are: unemployment, lack of wage employment, failure to send children to school, lack of access to health facilities, electric services and good housing. Above all, lack of employment is one of the greatest economic challenges that incapacitate poor people to meet their basic needs.

A study by Christensen, (Christensen, 2004) examined the evolution of urban poverty. On the causes of urban poverty, Christensen's findings point to such factors as high urban population growth, rural-urban migration and also migration from small to big towns. Rural-urban migration is a coping mechanism devised by the rural poor, but migration adds to the existing burden of urban poverty.

Unlike findings elsewhere in sub-Saharan Africa, the results of this study indicate that the rate of urban poverty is strikingly similar to that of rural poverty in Ethiopia. Although the service

sector has shown some growth in Ethiopia, this study did not show that the increased potential for employment has translated into a decline in urban poverty. By contrast, other research (Dessalegn Aklilu , 2002) has shown a small increase in employment in the service sector between 1994 and 1999 (from 37.6 percent to 43. 7 per cent). Much of the increase came from the trade, hotel and restaurant Sub- sector (Kedir, A and Mckey, A, 2003).

All in all, the crucial determinants of poverty among the majority of mega -cities, and big urban areas and nowadays even to medium towns of the third world can be summarized as: low levels of physical and human capital, unequal distribution of productive assets, inadequate access to social services, high fertility especially amongst the urban poor, and urban development strategies which are biased against labor absorption (Oberai. A, 1993)).

Individuals tend to seek economic opportunities, and a main driving force behind city growth is greater mobility of labor, capital and production. Improvements in road infrastructure between large cities, as well as increases in population density along these corridors, have increased urbanization rates from 3.7 to 14 percent over the last 2 decades, almost quadrupling the national urban share. Although this represents quite a dramatic transformation in the economic landscape, Ethiopia remains one of the least urbanized countries in Sub Saharan Africa. Although rates of urbanization in Ethiopia are quite low compared to other countries (Schmidt, E. and M. Kedir. , 2009) urbanization is taking place, and as Ethiopia urbanizes, poverty becomes more urban.

In all the above mentioned studies the effect of urban multidimensional poverty on livelihood is not addressed.

2.9 Theoretical Framework

The concept of poverty seems simple which doesn't worth to discuss it in detail. Nevertheless, it is not as simple as we think of it if one goes deep into it. This is due to its multifaceted nature and dimension. A lot of scholars have been busy finding the tangible concept of poverty and agreed that it has various angles in different professionals.

It has also various interpretations in economic, social, political, institutional, environmental and cultural contexts. Because of its variation in different scholars, disciplines and interpretation various approaches have been employed to understand the concept of poverty.

Todaro and Smith (Todaro . M and Smith. S, 2003), renewed development economists, draw the inequality approach to conceptualize poverty based on observable phenomena. They differentiate the economic gap between the rich and poor as to how poverty operates in a given society and how one can conceptualize it. Based on this, they attempted to look at the nature and the size of the differences between the bottom 20 or 10% and the rest of the society. To remedy the problem, distribution from the rich to the poor can make substantial development all poverty in most society. It is, however, important to note that poverty and inequality are distinct concepts and neither subsumes the other though they share close meanings.

The sociological approach takes the concept of poverty as a reflection of social inequality. In a social context Trufat (1994) explained poverty as absence of access to enjoy fundamental human rights (Tizeta M., 2001). This could include lack of access in social participations such as social class and social group and so forth.

In the eye of environmentalists, poverty is conceived as a situation in which one has access to environmentally fragile natural resources that reduce income and decrease one's own ability while the economist identifies it as a situation in which the individual's command on resources falls below a certain level. A political scientist conceptualizes poverty as lack of participation/representativeness in politics or vote in presidential election. An anthropologist, likewise understands poverty when an individual or a society is deprived of practicing the norms, values and cultures within (endorsed to) the society.

Different scholars came up with different conceptualization of poverty.

Grieson (Grison.R, 1973) conceptualizes poverty and specifically urban poverty as a low quality in health care, housing, calorie intake, clothing, recreation, education, entertainment, furniture, transportation, political representation and justice. (Meron A., 2002) , conceptualizes poverty using the livelihood approach. This approach to urban poverty refers to the ensemble of activities that a household or an individual regularly undertakes and entitlements it makes claims in order to sustain a given standard of living. This captures not only the measurable income, which most literatures suggest, but also about types of capital or assets up on which livelihoods are built and households and individuals strive to acquire in order to achieve requisite outcomes. The assets encompass physical capital, the basic infrastructure and producer goods needed to support

livelihoods. This approach takes financial capital, the availability of cash or equivalent, human capital, the skills, knowledge, good health, natural resource stocks, social capital /networks/ connectedness, institutions and values as necessary ingredients in identifying the presence of urban poverty.

The researcher developed a theoretical framework based on the reviewed literature to analyze the determinants of urban multidimensional poverty. The urban multidimensional poverty which is the dependent variable of the study consists of a dummy variable categorized as poor and non-poor status of the households.

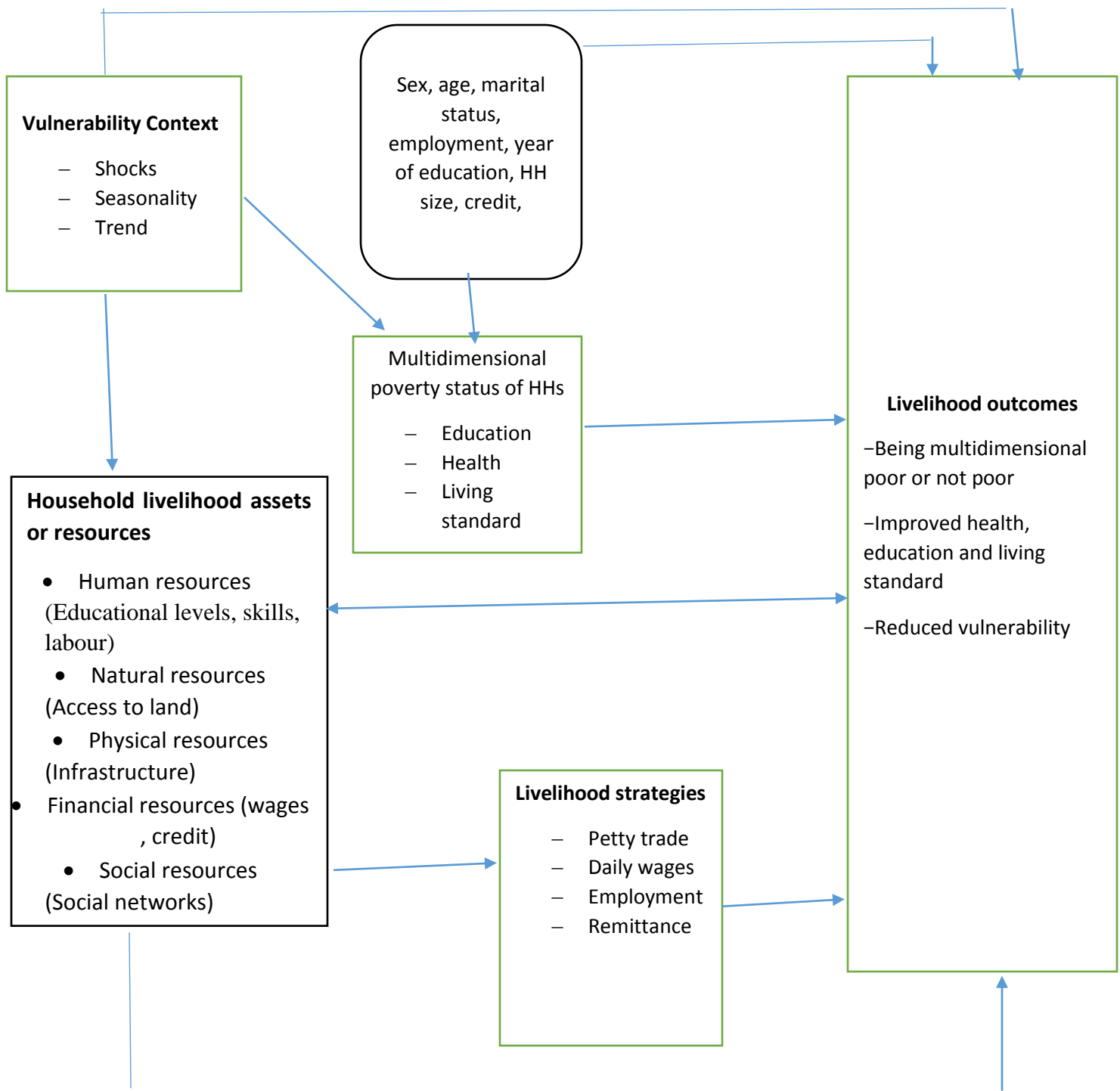


Figure 2.2 Theoretical framework of Determinates of multidimensional Urban Poverty and Livelihood assets or resources *Adopted from (DFID, 2001) and (Alkire & Foster, 2011)*

CHAPTER THREE

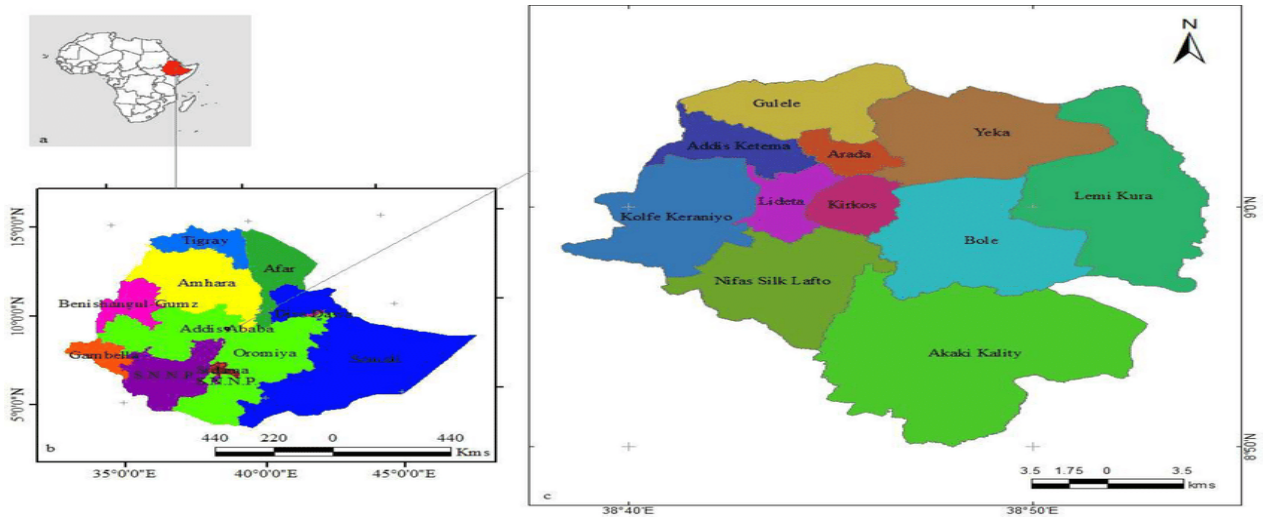
RESEARCH METHODOLOGY

This section of the study discusses the description and the justification of the study area. Moreover, the section provides more information about the methodology of the study, research design, data collection methods, the sampling frame of the study, and the quantitative and qualitative data analysis of the study.

3.1 Description of the Study Area

Bole sub city is one of the eleven sub cities making Addis Ababa city administration. The district is located in the southeastern suburb of the city. It borders with the districts of Lemi Kura, Yeka, Kirkos, Nifas Silk-Lafto and Akaky Kaliti sub cities.. It has 11 woredas and 79,020 households. Bole sub-city is the largest and the 4th most populous sub-city in Addis Ababa, with an area of 122.08 km².

Figure 3.1 Bole District in Addis Ababa, Ethiopia



Source: Retrieved from Ethio GIS (2022)

According to CSA estimation (CSA, . Statistical Abstract of Ethiopia, Addis Ababa., 2009), the number of population estimated was 308,995 (M= 145,225 and F= 163,770) with annual population Growth rate of 3.7 %. The population profile of the region is characterized by large number of youth and adult 15-64 (72.98 percent), while those in the age group under 15 accounts for 24.43 percent and the remaining 65 and above is 1.53 percent

Poverty is one of the most important concerns of the sub city where about 1655 HHs are being supported by urban safety net program. Bole sub city is considered to be the better off sub city. However, poverty is hidden in the area. There are about 1655 safety net beneficiaries. Moreover, as to the knowledge of the researcher, Bole sub city was not studied related to urban multidimensional poverty researches. Therefore, it is important to study the prevalent of urban multidimensional poverty and its effect on livelihood in Bole sub city.

Table 3.1 Bole Sub City Safety net Beneficiaries

<i>Woreda</i>	Female HHs Head	Male HHs Head	Total
1	63	140	203
2	16	48	64
3	44	53	97
4	77	180	257
5	63	75	138
6	63	134	189
7	142	50	192
8	8	57	65
9	105	201	306
10	33	73	106
11	9	29	38
Total	623	1040	1655

Source: Bureau of Women, Children and Social Affairs, Safety net directorate.

3.2 Data Sources

The data required for this study were generated from household survey of households residing in four *Woredas* of Bole sub city. Secondary data were collected from various sources including

review of published censuses or other statistical data, data archives, books, newspapers, internet articles, research journals, databases, etc.

3.3 Research Design

The main purpose of this study was to assess urban multidimensional poverty and its effects on livelihood of Bole sub city. The study employed cross sectional study design with qualitative and quantitative approaches. In such design, data are collected at a specific point in time in the lives of the respondents.

3.4 Sample Size Determination

The sample of this research was calculated by using (Yamane, 1967) sample size determination formula with 95% confidence level. Such method is the most appropriate way of sample size determination for finite population (Yamane, 1967) . This is presented as follow:

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

Where,

n is the sample size,

N is the population size and

e is the acceptable margin of error.

According to Bole sub city administration, there are 1,655 safety net beneficiary households in Bole Sub city. Among the 11 *Woredas*, 4 *Woredas* having the maximum number of safety net beneficiaries (*Woreda* 9 = 306, *Woreda* 4= 257, *Woreda* 1= 203, and *Woreda* 7= 192) were selected. A total of 958 households are considered as the population of the study. Households are the final units of analysis for livelihood study. Therefore, the sample size was calculated as

$$n = \frac{958}{1+(958 \times (0.05)^2)} = 282$$

Therefore, according to the above calculation a total of 282 questionnaires were randomly be distributed to collect relevant data from 282 households in Bole sub city using lottery method.

According to the proportion, 91 HHs from Woreda 9, 76 HHs from Woreda 4, 58 HHs from Woreda 1 and 57 from Woreda 7. Then 5% of the total population was added as a reserve and total population for the study became 296.

3.5 Data Collection: tools and procedures

The data for this study were collected using quantitative data. The quantitative data were collected using household survey questionnaire and mainly focused on collecting household characteristics, socio economic profiles, and household living standard. However, the numerical data were substantially be supported by qualitative data collection tools (document review and Key Informant Interviews (KIIs)).

3.5.1 Household survey: household survey was employed to collect information on the nature of household assets, livelihood strategies and livelihood outcomes. This was done using structured questionnaire.

3.5.2 Key Informant Structured Interview Guide: Key Informant Structured Interview Guide was used with 5 officers from Bureau of Women, Children and Social Affairs, social protection coordination directorate, who are working on social affairs regarding city policies and programs of poverty alleviation and the institutional arrangement.

3.5.3 Secondary Information: Secondary information pertaining to relevant policies and programs at city level was collected from various offices. Specific studies made in urban poverty in general and urban poverty in the city in particular were also be consulted to learn the overall context of the problem.

3.6 Method of Data Analysis

The data which was collected using the above data collection methods were analyzed as follows:-

3.6.1 Qualitative Data Analysis

The collected Qualitative data through key informant interviews were converted in to description and summary. Thematic analysis was deployed to analyze the qualitative data.

According to (Creswell, , 2012) the analysis method should interconnect themes. Therefore, the researcher base qualitative themes, to display a chronology or sequence of events, such as when qualitative researchers generate a theoretical and conceptual model. While conducting thematic analysis, data which were collected from key informant interviews were transcribed.

3.6.2 Quantitative Data Analysis

The quantitative data of the study were analyzed by descriptive statistics and econometric technique. The descriptive statistics used frequency, percentage, median, and range and cross tabulation results to describe the characteristics of the respondents and to compare the result of the variables based on the other variables. The econometric technique used binary logistic regression model to determine whether the participants were in multidimensional poverty or not.

While analyzing quantitative data, SPSS software was employed. Then, the analyzed data were presented in tables as well as word analysis under each table. Throughout the analysis information from interviews was presented in a manner that they help to triangulate data.

First the survey data were collected and edited, coded and entered into a computer using Microsoft Excel 2010. The quantitative data of the study were analyzed by descriptive statistics and econometric technique. The descriptive statistics used frequency, percentage, mean, and range and cross tabulation results to describe the characteristics of the respondents and to compare the result of the variables based on the other variables.

For the purpose of comparison the study used poverty measurement line as a cut-off point using the Oxford Poverty and Human Development Initiative (OPHI) methodology developed by (Alkire, S., & Foster, J., 2011) to analyze the multidimensional poverty status (Simultaneous multiple deprivation of households). Since the method is flexible and easy to use it with different dimensions and indicators, important to use it in different societies and situations to observe the difference. (Alkire, S., & Jahan, S., 2018) The extent of MDP in the study area will be analyzed in consecutive steps. First, MDP indicators are going to be identified based on global MPI with their deprivation cut-off point and weight. Secondly, few MDP indicators will be contextualized to the local area situation such as year of schooling, cooking fuel (ventilation or improved stove), and sanitation.

For the achievement of the first objective of the study, identification of deprivation cut off for each household's multidimensional poverty indicators were conducted. And by summing the cut off score above 50% is severe poor. 50%-33.3 % is under less severe condition. 20%-33% vulnerable condition and in general < 33.3%, it is identified as non-poor and above 33% considered as multidimensional poor. After identification of the poor from non-poor, the aggregation will be computed with the headcount ratio (H), intensity of poverty and MPI of the sample population. The proportions of people who experience multiple deprivations which is headcount ratio H is computed as

$$A(\text{Intensity of poverty}) = \frac{q(\text{no. of Multidimensional poor person})}{n(\text{Total Population under the intensity of poverty})}$$

Where q is the number of people who are multidimensional poor n-is the total population under study Intensity of poverty.

The censored head count ratio of each indicator was measured to accomplish the second goal, which is to assess the contribution of each indicator to overall poverty. The method of excluding people who do not meet the poverty cut-off from deprivations and concentrating only on those who are in multidimensional poverty is known as censoring.

Cut off points

In order to investigate MDP, this study used (Alkire, S., & Foster, J., 2011) method. Basically the main indicators of the weight and cut-off points are derived from Global MPI which is proposed by the researcher and UNDP. The cut off point for the MPI to consider whether the households are poor or non-poor is 33.3% or 1/3 of the weight of all other PW indicators. If the score exceed more than 33.3% the household including everyone in it is considered as multidimensional poor. Households with a deprivation score of 20% or higher but less than 33% are near multidimensional poor and considered to be vulnerable. Households with a deprivation score of 50% or higher are severely multidimensional poor (Alkire, S., & Foster, J., 2011). The censored headcount ratio was calculated by multiplying the amount of poor and marginalized citizens in each indicator by the total population.

The dimensions selected for this study are health, education and living standards as per global MPI.

- **Education:** The study used both the indicators set by the (Alkire, S., & Foster, J., 2011)

and FEDRE Education curriculum, in the case of the curriculum, students who are not completed primary education then the HH considered as deprived. And each indicator is weighted equally at 1/6.

- **Health:** This indicator focuses on the mortality and illness of family members and children's. If child mortality happens <18 Age caused by preventable disease then it is considered as an indicator. (Adeoti, 2014) if the household members faced serious health problems and are not cured with medication then it is considered as deprived. Additionally according to (CSA, 2012) the HH family member face any chronic health problem within two months prior to the interview, the HH will be considered as deprived. If there is disable person in the HH that can't hear, can't see, and can't move without help then the household considered as deprived to this indicator (CSA, 2012). And each indicator is weighted equally at 1/6.
- **Living standard:**

The MPI considers six indicators for standards of living. Each indicator is equally weighted at 1/18. This includes cooking fuel, sanitation, drinking water, electricity, housing, and assets (Alkire, Kanagaratnam and Suppa, 2020).The selected deprivation cut-offs for each indicator are discussed below.

 - **Cooking fuel:** A household cooks using solid fuel, such as dung, agricultural crop, shrubs, wood, charcoal, or coal consider to as deprived
 - **Sanitation:** A household is considered to have access to improved sanitation if it has some type of flush toilet or latrine, or ventilated improved pit or composting toilet, provided that they are not shared.
 - **Drinking Water:** A household has access to clean drinking water if the water source is any of the following types: piped water, public tap, borehole or pump, protected well, protected spring, or rainwater, and it is within a 30-minute walk, round trip. (Alkire, S., & Foster, J. , 2011).
 - **Electricity:** A household considered as deprived if it has no access to electricity.
 - **Room flooring:** if the floor of the house is made from dirt, sand or dung counts as deprivation in flooring. And these types of houses considered as poor quality and may have an adverse impact on the health of households (UN Habitat., 2004).
 - **Room density (Overcrowding):** This indicates number of persons per room. A household

is deprived in rooms if more than three persons lived per room. (UN Habitat., 2004)

- **Cooking fuel:** A household is considered to be deprived in cooking fuel if the household cooks with dung/leaves; charcoal or wood, grass and had no improved materials and kitchen is not ventilated, then household is considered as deprived.
- **Assets ownership:** If a household does not own at least two of the assets, the household is considered to be deprived. The assets are radio, TV, telephone, bike....

3.7 Units of Analysis

One of the most important ideas in a research project is the unit of analysis. The unit of analysis is the major entity that a researcher is analyzing in his study. Since the study focused on the assessment of urban multidimensional poverty and its effect on livelihood in Bole sub city, the unit of analysis in the study was households who were selected randomly.

3.8 Model Specification

Based on the theoretical review and empirical study and nature of the research, binary logistic regression model was selected for the analysis of econometrics part. Since the research has dichotomous variables which is dependent and independent variables for the multidimensional poverty, binary logistic regression was used to assess the relation between the variables. According to (Gujarati, 2004), binary logit is employed when a study has qualitative response variable, or regressed taking two values. The dependent variable has dichotomous values taking a value 1 if the households are poor for multidimensional poverty status and 0 if they are non-poor. Thus, the binary regression was used in order to measure the association between the outcome variable and the independent variables.

logit(poverty status)

$$= f(\beta_0 + \beta_1 \text{Sex} + \beta_2 \text{Marital Status} + \beta_3 \text{Educational level} \\ + \beta_4 \text{employment status} + \beta_5 \text{household size} + \beta_6 \text{Person per room} \\ + \beta_7 \text{Housing ownership} + \beta_8 \text{Acess to credit} + \epsilon)$$

Where Multidimensional poverty status $\begin{cases} 0 = \text{if Households are non - poor} \\ 1 = \text{if Households are poor} \end{cases}$

Then used a Logistic regression model, given by

$$\text{logit}(p) = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_8X_8$$

Where $X_1 \dots X_8$ are explanatory variables (Sex, Marital Status, Educational level, employment status, Household size, person per room, Housing Ownership, Access to credit).

Hypothesis and definition of variables

Dependent variable: The dependent variable of the study is household's multidimensional poverty status represented by 1 for multidimensional poor, 0 for multidimensional non-poor. The cut-off point of the households' score is 33.3% or higher (obtained by sum all the indicators) classified as poor, while those with less than 33.3% deprivation score was classified as non-poor.

Explanatory Variables: - considering the dependent variable of the study the following variables are listed referring various literatures and empirical studies.

Sex of household head: Sex of household head is a nominal variable (1 = male, 0= female) according to various literatures and studies Female HHH have more vulnerable than Male HHH (Terefe et al., 2017). (World Bank Group, 2015b)

Marital status: Some pieces of literatures recommend that single headed households have high probability to escape from poverty than married. The assumption is that households headed by married individuals are supposed to be larger in family size (A.Esubalew, 2006). However, some studies suggest that married household heads have high probability to escape from poverty with sharing of resources (Fetsum, 2018) .

Employment Status of Household Head: a household headed by employed household head has less probability of falling into multidimensional poverty status than household headed the unemployed head.

Housing ownership: housing ownership is one major indicator for household's poverty status since it affects the affordability of house rent especially in urban areas(JRF, 2016). It's believed that housing rent cost will exacerbate the poverty status of the households. Therefore, positive relationship will be expected from the result of the study.

Credit access: - Lack of access to credit may increase the vulnerability of the urban poor by reducing their ability to improve their economy. It also expected to adversely affect establishment of small business and improvement of their home facilities. In reverse, credit access may improve the lives of households with creating economic opportunities or may use as poverty cope up strategies (Village et al., 2008).

3.9 Study Variables

3.9.1. Response Variable

The dependent variable of this study is the multidimensional poverty status. Following Alkire and Santos (2011) method of measuring multidimensional poverty, a household's deprivation score (C_i) is compared with the multidimensional poverty cut-offs (K). A house is considered poor if they are deprived in at least one third of the weighted indicators. In other word a household is identified as poor if it has a deprivation score greater than or equal to one-third (33 percent) (Alkire and Santos, 2011; OPHI, 2013). Following this we 0.33 cut off point for this study. This is represented by the binary variable (Y_i) that takes the value 1 or 0, as:

$$Y_i = \begin{cases} 0 = \text{if Households are non - poor} \\ 1 = \text{if Households are poor} \end{cases}$$

The following Steps were used to calculate multidimensional poverty according to (Alkire and Foster (2007, 2011), those are:-

- i. Select dimension: health, education, living standard dimension
- ii. Select indicators for each dimension according to data
- iii. Use the first cutoff to determining deprivations (1 = deprived and 0 = non deprived)
- iv. Attach weight for three dimensions each has weight 0.33 and for each dimension equally distributes the weight among indicator
- v. Use second cutoff to determine poor person, since we have ten indicators, a person who do not have 1/3 of the total 10 indicators considered as poor, So a person who score below 0.33 considered as non-poor and get value 0 then count number of poor and calculate headcount index

(H) = no of poor/total no of household and the other one is the intensity of poverty (A) is the average deprivation score of those poor households i.e

$$A = \sum_i^n = \frac{1 \frac{1}{a} C^*}{q}$$

vi. Last calculate $Mo = H \times A$

3.9.2 Explanatory Variables

The predictor variables at household and household head level expected to determine urban multidimensional poverty are listed in the below table.

Table 3.2: Description of explanatory variables

Explanatory variable	Definition of variables	Variables type	Expected sign of MDP
Sex	Sex of household head: 0 for female, 1 for male. The sign is for female	Dummy	+
Household size	Size of household	Continuous	+/-
Marital status	Marital status of household head: 0 = never married, 1= married, 2=divorced 3=widowed	Categorical	+/-
Education level	(illiterate, read and write =1, primary and secondary=2, Tertiary =3)	categorical	-
Employment status of the HH	Employed= 1, Unemployed= 2, Pensioner=3	Categorical	+/-
Child/infant mortality/Age < 5years	Child/infant mortality/Age < 5years/ in the household prior to the survey. (Yes=1, No=0).	Dummy	+/-
Number of persons/room	Number of persons per room or crowdedness	Continuous	+
Housing ownership	Housing ownership : own occupied= 1, rent from private=2, kebele= 3, government 4=rent	Categorical	+

Credit access	Any Credit access for the households Yes=1, No=0.	Dummy	-
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Source: (Own Survey, 2023)

3.10 Instrument Reliability

One of the major requirements of any research process is the consistence of the data and the results of the research finding (Kothari, 2004). A measuring instrument is reliable if it provides consistent results (Creswell, 2014). Correspondingly, to Cohen and his colleague (2003:117), reliability and consistency of the instruments over a group of respondents. To make sure the reliability of Cronbach alpha test has been employed. The Cronbach alpha coefficient is the most common method used for assessing the reliability of a measurement scale (Hayes & Bob, 1998). The coefficient, which reflects homogeneity among a set of items, varies from 0 to 1.

The literature regarding test and scale construction suggests that an acceptable level of reliability is a function of the intended use of the test results. Nunnally JC. (1967) suggests that when a test or scale is used to make decisions about individuals, the reliability coefficients should be at least 0.90. However, it is impossible to achieve this number, especially assessing personality and feelings. Others are somewhat less conservative, suggesting that a reliability coefficient of 0.80 is acceptable for a test or scale that will be used for making decisions about an individual (Batjelsmit, 1977). Moreover, Saad, et al (1999) argues the following interpretations: 0.90 or higher = excellent, 0.80 to 0.89 = good, 0.70 to 0.79 = adequate and 0.69 and below = may have limited applicability. This study had a total of 9 variables (one dependent and eight independent variables) and the overall Cronbach alpha value is depicted in Table 3.3.below

Reliability Statistics

Cronbach's Alpha	N of Items
.827	9

From Table 3.3 we can see that the overall Cronbachs' Alpha value of the study was **0.827**, which indicates that there was a good internal consistency in the scale (Saad et al,1999).

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter presents, analyzes, and interprets the data collected from participants via a standardized questionnaire and key informant interviews. The overarching purpose of the research was to assess urban multidimensional poverty and its effect on livelihoods: The Case of Bole sub city. Thus, the chapter is classified into three sections, the first section introduces the socio demographic condition of the survey respondents. The second section focused on the assessment of the prevalence and intensity of Multi-dimensional Poverty level of the respondents. Thirdly, the study analysed the effect of multidimensional poverty on livelihood of the household in the mentioned place using Regression analysis, to identify the basic determinants of urban multidimensional poverty.

The analysis of the study was conducted based on the primary and secondary data which were obtained from survey questionnaires, interviews and secondary data of the institutions. The results obtained from the data were analysed using SPSS software.

4.1 Descriptive Analysis

4.1.1 Socio-demographic Characteristics of Households

The socio demographic status of the respondents entails about the description of the Households unique or common characteristics in sex, age, marital status, education and employment status of the respondents in the study area. These variables were useful to show the characteristics of the sample population under study.

Table 4.1: Socio-Demographic description of the households

Variables	Category	Frequency	Percent
Sex of HH head	Female	187	63.17%
	Male	109	36.82%
	Total	296	100%
Age of the HH head	15-24	15	5%
	25-34	104	35.1%
	35-44	98	33.1%
	45-54	54	18.24%
	55-64	12	4%
	≥ 65	13	4.39%
	Total	296	100%
Marital status of HH	Never married	13	4.4%
	Married	140	47.29%
	Divorced	76	25.67%
	Widowed	67	22.63%
	Total	296	100
Educational Status of HH	Illiterate	83	28%
	can read and write	122	41.21%
	Primary schooling (1-8)	58	19.59%
	Secondary (9-12)	19	6.41%
	college or university	14	4.72%
	Total	296	100%
Employment status of HH	Employed	211	71.28%
	Unemployed	46	15.54%
	Pensioner	39	13.17%

Total**296****100%**

Source: Own survey, 2023

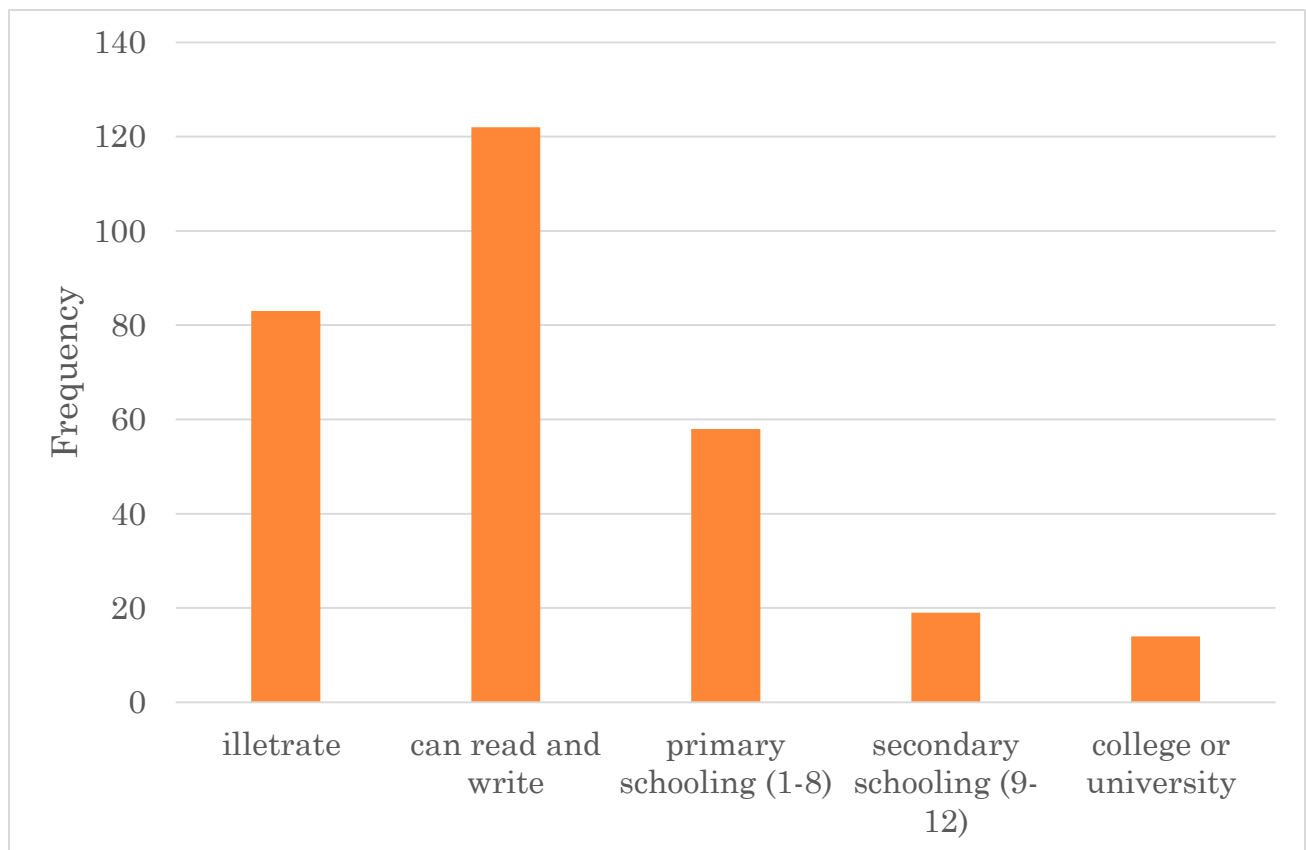
As it is shown in table 4.1 above, from the total households, 187 (63.17 %) are headed by female while the rest 109 HHs (36.82%) are headed by male. This result seems unusual that the majority of the households are female headed. Regarding the ages of the households, the majority of the households, 104 (35.1%) were in the age group of 25-34, followed by the age group 35-44, which are 98 (33.1%) and 45-54, which are 54 (18.24%). The small portioned groups are the age group between 15-24, which is 15 (5%), 55-64, which comprises 12 (4%) and the age group \geq 65, which is 13 (4.39%). This indicates that, the majority of sampled households are in the productive age group, 25-44, which is about 202 (68%) among these, 91 are male.

Regarding the marital status of the respondents, out of the total sample respondents, the majority of participants 140 or (47.29%) were married and living together with their partner. Among those who were multidimensional poor, 16 (11.42%) were married. Furthermore, (25.67%) or 76 of the respondents are divorced and (67) or (22.63%) of respondents are widowed. The rest, (13) or 4.4 % are never married. These imply that, having partner or being married may not secure individuals from poverty if they are not capable in supporting their families.

According to Alkire & Foster, 2011, one of the Multidimensional poverty dimensions is education. The survey revealed that the vast majority, 122 (41.21%) of the respondents were only having reading and writing skills and 83 (28%) are illiterate. Among the multidimensional poor survey participants, 44 (71%) were those who were having reading and writing skills and illiterate. Respondents who completed primary schooling were about 19.59% and those who completed secondary schooling were only 6.41%. Only 4.2% (14) respondents completed higher education (college or university). This indicates that the education status of survey households was at a very low level. Only 4.72% of the total respondents have completed or joined colleges. Similar Studies like (Getaneh, 2017) , as mentioned by Samuel (2021) , confirm that the educational level of the respondent is directly related to poverty and multidimensional poverty deprivation level of the households. Female headed households are more illiterate than male headed household counter parts with 64 and 19 respectively. However, there were a higher number of female headed households compared with male headed households who completed primary schooling with 34 and 24 respectively

Findings from key informant structure interview are in contrast with the data collected from survey respondents. It is mentioned by the government officials that access to education has improved but the data shows that 41.21 % of the participants are having only reading and writing skills whereas 28 % are illiterate.

Figure 4.1: Education level of respondents



Source: Own Computation, 2023

4.1.2 Economic Status of the respondents

Regarding economic activities, survey respondents are engaged in different economic activities. The economic activities they are engaged in varies from Petty-trade/ Gulit to trade and metal /wood work, from hotel service to preparing and sale of local drink and Sale of food. Moreover, they are also engaged in daily laborer in construction works. Those who are living in urban slum areas are dependent on selling local drinks and food.

TABLE 4.2: Economic Status of the respondents

		Frequency	Percent	Male (%)	Female (%)
Employment	Employed	119	40.20	56.7	43.3
Status of HH	Unemployed	123	41.55	33	67
	Pensioner	54	18.24	23	77
	Total	296	100	36.82%	63.18%
Occupation	Self-employed	133	44.93	33.11	66.89
Category	Government employee	76	25.67	67	33
	Private Employee	43	14.52	41.09	58.91
	NGO employee	4	1.35	50	50
	Daily Laborer	40	13.51	78	22
	Total	296	100	36.82 %	63.18%
Source of Income	Petty-trade/ Gulit	111	37.5	41.14	58.86
	Trade	89	30	54	46
	Metal /Wood Work	23	7.77	100	0
	Hotel service	18	6	79	21
	Preparing and sale of local drink	16	5.4	0	100
	Sale of food	23	7.77	11	89
	Safety net	11	3.71	33	67
	Others	5	1.68	69.37	30.63
	Total	296	100	36.82%	63.18%

Source: own survey, 2023

It has been observed from the table 4.2 that, majority of the respondent households (41.55%) are unemployed and do not have permanent source of income. On the other hand, (40.20%) of the respondents are employed in different sectors whereas, the rest (18.24%) are pensioner.

As it is also shown in the above table, the self-employed household heads are engaged in different income generating activities. About 111 (37.5 %) respondents are engaged in petty - trade (Gulit) followed by other sources of income generating activities such as trade 89 (30 %), Metal /Wood Work as well as sale of food 23 (7.77%). The rest, hotel service 18(6%), Preparing and sale of local drink 16(5.4%), direct benefiting from safety net 11(3.71%) are among the major sources of income for the household respondents.

According to the sub city administration, in addition to the major economic activities stated in the above table, creating market access like Sunday market for informal traders are contributing a lot to improve their income and minimize the urban poverty.

Table 4.3 Unemployed Sizes of the Households

Unemployed Size	Frequency	Percent
0-1	16	5.4%
2-3	151	51%
4-5	101	34.12%
6-7	28	9.45%
8-9	0	0
Total	296	100%

Source: own survey, 2023

As shown in the above table, the highest majority of respondents (85.12%) have unemployed family size of 2-4 individuals in their families. In addition the mean unemployed family size of the respondents is around 4. This result is almost similar with (World Population Review, 2022) which indicates the average size of the city is 3.8. There is a direct relationship between the number of unemployed family members and the vulnerability to be poor. Therefore, the unemployed size of the respondents have significant negative relation with being poor since the vulnerability to be poor rise while there is more unemployed members are in the Household (Samuel, 2021).

4.1.3 Multidimensional Poverty status of Households

4.1.3.1 Health Related Problems

Health is the first and single most factor for the well /bad being of individuals. Without proper health life would be difficult. Poor health can limit one's ability to work, reduce economic opportunities, inhibit educational attainment, and lead to medical debt and bankruptcy. Poor health condition has a direct relation with multidimensional poverty status of the households. According to the data collected, 63.17% of the respondents have frequently suffered from diseases. And the remaining 36.82% of the respondents have expressed that they didn't face a major health problem in the past two years. From the respondents who faced a major health problem about 35.29% of them have faced critical illness, 30.48 % moderate, and 34.22% simple. The rest, which is 34.22% simple. Regarding the causes of illness, Diabetes, Diarrhoea, infections and Pneumonia are the major causes of illness which is 17.11%, 16.57%, 15.5%, and 10.16 % respectively. Other causes of illness include Cardiac or heart disease 8 %, cancer 5.88% and renal disease 4.81%. The rest, 11.22% of the respondents have been exposed for other types of illness.

Table 4.4 Health condition of the households

Frequently suffered from diseases				
	Frequency	Percent	Male HH%	FemaleHH%
Yes	187	63.17	43%	45%
No	109	36.82	57%	55%
Total	296	100%	100%	100%
Degree of illness				
	Frequency	Percent	Male HH%	FemaleHH%
Very critical	26	13.9	11.37	23
Critical	40	21.39	11.19	24.67
Moderate	57	30.48	32.44	32
Simple	64	34.22	45	20.33
Total	187	100%	100%	100%
Causes of illness				
	Frequency	Percent	Male HH%	FemaleHH%
Diarrhea	31	16.57	11.2	13.5
Malaria	5	2.67	12.1	9
Pneumonia	19	10.16	3.3	8.3
Infection	29	15.50	13	12
TB	11	5.88	9	6.4
HIV	4	2.13	11	11
Diabetes	32	17.11	11	12
Cardiac or heart disease	15	8	4.4	10
Cancer	11	5.88	7.3	6.6
Renal Disease	9	4.81	8	4.8
Other	21	11.22	9.7	6.4
Total	187	100	100	100

Source: own survey, 2023

Proper Health treatment and check-up, is highly key for the prevention and post treatment of health condition of the households. Among the total respondents who face illness, 111 (59.35%) have visited medical facility. However, 76 respondents (40.64%), have not visited any medical facility. Among those, who have visited medical facility, 67 (60.36%), have visited government medical facility, and 33 (29.72%), private and the rest 11 (9.9) have gone to traditional and spiritual healers. The reason behind going to government health facility is due to its lower charge. Those who have visited the private health facility for its better treatment/hospitality. Traditional medicine is preferred by the respondents for it cures better than scientific medicines and better follow up. The majority of the respondents 139 (74.33%) confirmed that the disease have brought impacts on occupation.

4.1.3.2 Child Mortality

Child mortality is one of the Multidimensional poverty Indicators. As indicated in the following table, the children's death whose age is below 18 in previous five years prior to the study was assessed and observed. The child mortality rate for the age group below 18years was indicated that majority of the respondent's 94.59% showed that they don't observe any children death in their family while the rest 5.40% have confirmed the existence of the child mortality in their HH in the specified period.

Table 4.5: Child mortality

child mortality	Frequency	Percent
Yes	16	5.40
No	280	94.59
Total	296	100%

Source: own survey, 2023

4.1.3.3 Education Status of the Households

In most literature, it's widely argued that the educational attainment of the household heads has significant influences on household poverty. Education is important indicator for human development. A study by Sisay. (2009) revealed that household heads highest educational level has a significant impact on the well-being of households.

Question related with school attendance or year of schooling were forwarded and asked whether there is any adult member of the family who didn't complete primary school. Accordingly, majority of the respondents around 66.89% of them expressed that there is a family member who didn't complete primary schooling while the rest (33.1%) of the respondents replied that there is no family members in the HH who didn't complete primary school.

Table 4.6: Education status of the households

Any HH member didn't complete Primary School				
	Frequency	Percent	Male	Female
Yes	198	66.89	76%	79%
No	98	33.1	24%	21%
Total	296	100%	100%	100%
Children Age b/n 7-15 not attending school				
	Frequency	percent	Male	Female
Yes	43	14.52	14.2%	23%
No	253	85.47	85.8%	77%
Total	296	100%	100%	100%

Source: own survey, 2023

The children's schooling who are in the age group between 7 and 15 were assessed and the survey result revealed that 253 (85.47%) of the respondents' children attend school and the rest 43 (14.52%) of the respondents children aged between 7 and 15 do not attend school. Even

though the number of children who didn't attend school at the specified age is very small, the main reasons for not attending school were related to lack of money for schooling and to help family with daily labour.

4.1.4 Household Living Standard

4.1.4.1 Access to Clean Water

The availability of clean water is one of the determinant factors of multidimensional poverty. Access to clean water is one of the major factors that can contribute to the households' health condition. According to the survey, the majority of the respondents 43.58 percent get water from private piped water whereas 26.35 percent of the respondents have source of water from Communal tap in the compound. The source of water for the remaining survey participants 13.17 % from Communal tap outside the compound, 8.78% from buying water products from shops.

Table 4.7: Households water access

		Frequency	Percent
Main source of water	Private piped water	129	43.58
	Communal tap in the compound	78	26.35
	Communal tap outside the compound	39	13.17
	buying water products	26	8.78
	Other	24	8.10
Total		296	100 %

Source: own survey, 2023

Distance of water source is also one of the indicator for living standards of the households. According to SDG guideline, a household is deprived if there is no access to improved drinking water or safe water within at least a 30-minutes' walk from home, round trip.

Table 4.8 Water access and its distance

	Frequency	Percent
Less than 30-minutes' walk	207	69.93
Within 30-minutes' walk	55	18.58
More than 30-minutes' walk	34	11.48
Total	296	100%

Source: own survey, 2023

As it is indicated in the above table, 88.51% of the participants' source of water is near their home. Only 11.48 % of the respondents walk more than a 30-minutes' walk from home round trip so that they are considered deprived.

4.1.4.2 Latrine Service

The availability of latrine/toilet facility service in a household has an impact on health and social. According to SDG guidelines, a household is deprived if living where the household sanitation facility is not improved or it is improved but shared with other households.

The majority of the respondents (44.93 %) have shared/between neighbours/ ventilated Pit latrine whereas 21.28 % of the survey participants have Private ventilated Pit latrine. The rest of them are using Private Pit latrines with traditional materials (16.55%) and shared/between neighbours/ Pit latrines with traditional materials (10.47%). Few participants have Public toilets (6.75%). This implies that the use of shared /public/ toilet is very low.

Table 4.9: Latrine service and negative consequence of the households

		Frequency	Percent
Latrine Service	Private ventilated Pit latrine	63	21.28
	shared/between neighbours/ ventilated Pit latrine	133	44.93
	Private Pit latrines with traditional materials	49	16.55
	shared/between neighbours/ Pit latrines with traditional materials	31	10.47
	Public toilets	20	6.75
	Total	296	100%
Major problem in Latrine services	Inadequate number of latrines/toilets	107	36.14
	Non-functional latrines	98	33.10
	Absence of latrine	79	26.68
	Other	12	4.05
	Total	296	100%
Negative consequence it has brought on health	Diarrheal diseases	72	24.32
	Common cold	123	41.55
	Asthma-exacerbate	45	15.20
	other	56	18.91
	Total	296	100%

Source: own survey, 2023

The problem of latrine services is identified as the major problem by the sub city administration and is working on it to expand the services so as to minimize its effect on health.

The problem related to the inadequate number and use of shared latrines/toilets has brought a negative consequences on the health of the respondents. The major health problem faced were common cold (41.55 %) and Diarrheal diseases (24.32%).

This finding is in confirmation with the interview participants that the problem related to lack of access to latrine existed in the sub city. The government is trying to solve it by constructing shared ventilated Pit latrine where the problem is worse.

4.1.4.3. Drainage System

The availability of adequate drainage system for waste water disposal was assessed. It was revealed that the majority of the respondent (about 56%) reported that there is no adequate drainage system. This is due to the dysfunctional and absence of proper drainage system connected to their house. The rest (44 %) of the respondents revealed that there is adequate drainage system for waste water disposal.

4.1.4.4 Access to Electricity

Having access to electricity improves ones living style and indicates more efficient and healthy way of life. According to (Alkire & Foster, 2011), lack of access for sustainable energy consumption is one of the multidimensional poverty indicators and the household is deprived if does not have electricity. As can be inferred from the table below, 273 (92.22 %) of the respondents have access to electricity and only 23 (7.77 %) survey participants have responded that they do not have access to electricity. This indicates that access to electricity has been improved.

Table 4.10: Access to Electricity

	Response	Frequency	Percent
Access to electricity at home	Yes	273	92.22
	No	23	7.77
	Total	296	100%
main source of light and powering for the household	Electricity meter- private	144	48.64
	Electricity meter- shared with neighbour	134	45.27
	Solar energy	7	2.36
	Bio-gas	-	-
	Local kerosene lamp (Kuraz).	11	3.71
	Total	296	100%
Source of power for cooking	Electric power	183	61.82
	Wood / cow dung	61	20.60
	gas	52	17.56
	Total	296	100%
Reason to prefer wood/cow dung to electricity for cooking	For its low charge/price	31	50.81
	easily available	12	19.67
	Easiness for manipulation and free of danger	-	-
	Other	18	29.50

purpose	Total	61	100%
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Source: own survey, 2023

Among the total survey participants, large proportion of households, 278 (93.91%) of them, used electricity as the main source of light and powering. Other sources of light and powering were local kerosene lamp (Kuraz) and solar energy, 3.71 % and 2.36 % respectively. Use of electric power for cooking can contribute to be healthy and cost effective. A household is deprived if cooks with dung, wood, charcoal or coal. 183 (61.82%) of the respondents used electric power for cooking whereas 61 (20.60%) relied on wood (cow dung) as source of power for cooking. The rest 17.56 % cooked with gas. The main reason for using wood / cow dung/ is they are denied to access to electricity and the affordability and easily availability of it.

4.1.4.5 Asset Status of Households

Assets are the core of the household strategies to survive, meet their future needs or reduce their exposure to risks. Their asset portfolios determine their level of resilience and responsiveness to risks, shocks and events. Asset portfolios are linked to livelihood strategies through households' management of their assets. A certain type of assets could be used to secure other assets as in the case of education being used to secure income (financial asset) or financial assets being used to secure education and skill.

Housing is the most valuable single possession of the poor in urban areas. In urban areas, housing is equated with land for rural people. House is an asset that can be used not only to protect oneself from the vagaries of weather but is also an important asset on which income generating activities can be based. For example, home-based enterprises are important for home-bound households (Moser 1998). Renting house is also an important source of income (*ibid.*).

Since housing is an important asset for urban households, it is essential to understand its different dimensions. First, it is vital to see the tenure type because of its direct implications for poverty. Second, the quality of housing which is a direct indicator of the standard of living and the possibility for using housing for income generating activities needs to be understood.

4.1.5 Income of the household

In urban setting, people rely on market exchanges to obtain basic necessities such as food, shelter, water and electricity. They need higher level of income than rural households to avoid poverty. Cash income is needed to pay for public transport, schools, housing, water, food, health care, child care, etc. The costs of all these services are higher in urban areas and form significant parts of the poor's expenditure. For example food is expensive for urban households who have no possibility of growing food or raising livestock. In terms of housing, it is believed that many tenant households spend more than a third of their income on rent (Satterhwaite and Tacoli 2002).

Table 4.11 Average Income status of the households

Average Income status				
Average Income (in Birr)	Frequency	Percent	Female	Male
0-1,500	9	3	17.8 %	5 %
1,501-3,000	23	7.77	18.34%	11.23%
3,001-4,500	69	23.31	11%	13%
4,501-6,000	54	18.24	16.22%	6.34%
6,001-7,500	67	22.63	14.64%	13.5%
7,501-9,000	27	9.12	12%	21%
9,001-10,000	31	10.47	7%	19.33%
Above 10,000	16	5.40	3%	10.6%
Total	296	100%		100%
		100%		

Source: own survey, 2023

Income is inversely related to poverty, which means that as the monthly income of household head increases the probabilities of falling into poverty decreases and vice versa. Regarding the average income status of the household, 69 (23.31%) respondents reported that, their average income is between 3,001Br-4,500Br, and equivalent to this, 67 (22.63%) earns an average income of 6,001Br-7,500Br. Almost 10 % of the respondents got an average income of less than

3000 Br per month. According to the World, the monthly income below 3000 Br (below USD 1.90 per day) considered as poor. The most vulnerable groups of households who are below the poverty line are found in the income category of 0-1,500 and 1,501- 3,000 for which their number is found to be (3%) and 23 (7.77%).The income poverty of the area, which is 10.77%. Female headed households, which is 36.14% are poorer than that of male headed households, which is 16.26 %. Among those who earn more than 9000 Br, Male headed households are about 30% whereas their female counterparts are only 10%. This implies that male headed households earn better average income than female headed households in the area.

4.1.6 Expenditure Status of the Household

The high cost of living affects households' monthly budget negatively. Hence, the monthly expenditure of most of the households by far exceeds their monthly income. For example, about 282 (94%) of the total households responded that change in expenditure on basic needs like food, clothe, health, education etc. increased very much over the last three years consistently. the monthly income-expenditure gap of households

In most developing countries like Ethiopia, households' monthly income does not go in harmony with their expenditure, instead _ expenditures outweigh incomes. This usually happens to create gaps between revenues and expenditures. Respondents were asked to tell their monthly expenditure to compare with their income. The great majority of them 279 (94.25%), said that their monthly income couldn't cover their expenditure that indicates the sky rocketing cost of living.

Table 4.12 Expenditure Status of the households

Expenditure status of the households				
Average Expenditure (in Birr)	Frequency	Percent	Female	Male
0-1,500	13	4.39	23.4 %	13.93%
1,501-3,000	27	9.12	21.56 %	19.06%
3,001-4,500	78	26.35	19 %	7.34%

4,501-6,000	58	19.59	9.14%	15.11%
6,001-7,500	70	23.64	6.5%	11.23%
7,501-9,000	33	11.14	9%	7.33%
9,001-10,000	11	3.71	5 %	19%
Above 10,000	6	2.02	6.4 %	7%
Total	296	100 %	100%	100%

Source: own survey, 2023

Female headed households' (63.96 %) expenditure is higher than male headed households (40.33%) in the first three lower expenditure categories which is between 0-4500 Br. Regarding the main consumption expenditures, Food consumption expenditure and house rent fees are the major ones followed by transport and medical costs. A question "how do you fill your monthly income and expenditure gap?", was asked to the respondents for those who experienced monthly income-expenditure gaps. Most of them 64.66 %, were found to lead an inadequate life with the income they earn. The remaining 23.31 % responded that they sold assets to cope up with the gaps and the small number of households (12.03%) get support from relatives, more specifically. remittances from abroad.

In most cases, people are not willing to tell their exact monthly income as opposed to their expenditure. Unlike the developed countries, this is the problem of developing countries. This is associated with fear that huge amount of tax will be levied up on them and / or lack of proper documentation or recordings that show their income properly.

4.1.7 Saving status of household heads

Saving is the amount of money that is not spent or the remaining balance from the expenditure of the individuals. Another way of looking at the well-being of households is to assess their saving status. In this ground household heads were asked to tell whether they save income or not.

Table 4.13: Saving status of households

Saving of the Households				
	Frequency	Percent	Male	Female
Yes	83	28.04	27%	34%

No	213	71.95	73%	66%
Total	296	100%	100%	100%

Source: own survey, 2023

Accordingly, 28% of the total household heads save a certain proportion of their income per month whereas the large proportion of the respondents (71.95 %) of the household heads could not save even a small amount.

Households were also asked "why not the households save part of their income per month". from a total of 213 households who did not save income per month, most of the households (92.3%) did not save due to lack of sufficient income even to cover their expenditure, and 6.44% households transfer their income to other duties, and only few of the households (1.26%) did not save income because of other reasons (i.e. to run their own business, low interest rate in the bank and high inflation rate).

4.1.8 Credit access of the households

Access to credit does not seem to form a prominent feature in the livelihood of the poor. It is only 60 households or 20.27 per cent of the total households who reported borrowing in the six months prior to the date of the survey.

Table 4.14 Access to credit service

Credit access of the Households				
	Frequency	Percent	Male	Female
Yes	60	20.27	38%	41%
No	236	79.72	62%	59%
Total	296	100%	100%	100%

Source: own survey, 2023

As indicated in the above tables, most of male headed households (62%) didn't benefit credit access compared with female headed households (59%).

Though micro finance and personal borrowing are the major sources of credit for the poor, access to credit seems too impossible for many people. In general, there is less reliance of the

poor on credit. The reason why the poor rely less on credit requires further research. It is, however, important to note that those who have borrowed, though very small in number, seem to use the credit productively such as to start-up business and generate income. About 68 per cent mentioned that they have invested in businesses, 13 percent to construct houses, 12 percent to medical purposes and the remaining 7 percent for different purposes.

According to the response from the key informant interview, the major problem that hinders access to loan is its lengthy procedure to get the loan.

4.1.9 Housing and Housing Facilities

Table 4.15: Living standards

		Frequency	Percent
owner/ tenure of housing	Own occupied	78	26.35
	Rent from privates	149	50.33
	Rent from <i>Kebele</i>	69	23.31
	Other	0	0
	Total	296	100.0
Person per room	1	5	1.68
	2	11	3.71
	3	71	23.98
	4	143	48.31
	5	53	17.90
	6	6	2.02
	7 and above	7	2.36
	Total	296	100.0
Floor of the room	Traditional materials like soil	138	46.62
	Modern-cement, ceramic, marble	137	46.28
	Parquet or polished wood	21	7.09
	Total	296	100.0
Roof of the room	Iron sheet	197	66.55

	Plastic thatch	76	25.67
	Others	23	7.77
	Total	296	100.0
wall of the room	Brick /blocket	123	41.55
	Mud and wood	133	44.93
	Plastic	40	13.51
	Total	296	100.0

Source: own survey, 2023

The housing tenure is one of the good indicators of the level of well-being. This indicator is of paramount importance because it is household wealth, which generates income and helps to lead a stable life. In relative term tenure security decreases the probability of being poor, where as it increases the probability of being non-poor. As it is shown in the table above, only 78 (26.35%) live in their own houses. The majority of the respondents, 149 (50.33%) live in houses rent from private whereas 69 (23.31%) dwell in houses rented from kebele.

Another indicator in poverty assessment is family size and number of persons per room. Accordingly, questions related with the number of person per room were forwarded for survey participants. The great majority, 209 (70.60%) of the respondents have 4 or more persons per room. Only 87 (29.39%) survey participants have 3 and less persons per room.

Household's room floor, roof and wall conditions are also important indicators in the study of multidimensional poverty status of the households. Regarding the floor of the household, almost equivalent number of the households live in houses whose floors are traditional materials like soil and modern-cement, ceramic, marble 138 (46.62%) and 137 (46.28%) respectively. Very few households live in houses where the floor is parquet or polished wood. 197 (66.55%) of the respondents' roof is made from iron sheet whereas, 76 (25.67%) are made up of plastic sheets and the rest 7.77% are made up of other materials. Regarding the wall of the houses, 133 (44.93%) of them are made of mud and wood and equivalent to this, 123 (41.55%) of the respondents houses wall is constructed by brick/blockets. Only 40(13.51%) participants reside in houses having plastic wall.

According to the key informant interview participants, lack of credit access, high rural-urban migration, disproportional job opportunities and inflation are the major causes of urban

multidimensional poverty in the sub city. In order to reduce urban multidimensional poverty in the area, the government interventions include the following: feeding the poor at the feeding center established at sub city level, maintain the oldest houses of the poor, safety net services for those who are unable to work, facilitating markets for agricultural and industry products for fair price, school feeding and providing school uniforms and stationary materials, establishing community self-help integration at block level. These help to ease the burden of the poor.

4.2 The effect of MPI on Livelihood

Key informants were asked about the effect of multidimensional urban poverty in Bole sub city and responded:

"Multidimensional poverty affects the education of their children. School age dependents of the poor households have marginal access to educational facilities .The financial costs of schooling are often high, making it difficult for poor parents to afford schooling for their children. School dropout is common for children of the poor. Children's school performances and discipline is also affected. In order to survive, teenagers from poor household are forced to engage in prostitution and become street children.

Urban poverty exerts different pressures which lead, in many cases, to problems of access to a health facilities. They are not able to afford health related costs so that they are either stay at home or go to unstandardized health centers when they get ill.

For some households, multidimensional poverty affects family size. Though having less number of children has a positive impact for the wellbeing of the household, the poor are forced to not have a child or limit the number of children.

One of the livelihood assets or resources is natural resources or access to land. Urban land can be obtained formally that the poor in the city cannot afford.

Another livelihood asset is social networks. Poverty is a key barrier to being part of wider social networks and lead to passive interaction. Social networks are still very important in job-search that the poor cannot do it easily. If people are unemployed for a longer period of time, then they

may even lose these networks, reducing their employment opportunities yet further and limiting their labor market choices to lower paid work.

Access to loan is another determinant factor that can contribute to livelihood. Access to credit helps to reduce poverty through increased income and standards of living. Micro financing is important in reducing poverty and in enhancing social welfare. Most of the microfinance institutions in Addis Ababa deliver financial services, especially loan, to the poor using a group collateral and individual (but for individual it depends on the size of the loan) method. However, most of the poor are not benefiting from Micro financing Scheme for they could not meet the requirements like permanent residence address, lack of loanable funds (Capital): to expand operational activities & reach more people for there are large credit demands.

The poor's livelihood is not diversified so that they are easily vulnerable for shocks and are not resilient.

Urban multidimensional poverty has a vicious circle effect on livelihoods. Being multidimensional poor leads to reduced livelihood opportunities and those who have reduced livelihood becomes poor.

The number of the poor is high that it is not an easy task to address the needs of the poor by the local government. It needs a compressive approach and integration with other stakeholders like non-governmental organizations and community based organizations."

4.3 Result of Multidimensional Poverty Analysis

The Multidimensional Poverty Index (MPI) is important tool to measure the acute poverty status of the households. It was introduced by the UNDP's Human Development Report Office and OPHI to track deprivation across three dimensions and 10 indicators: health (child mortality, nutrition), education (years of schooling, enrolment), and living standards (water, sanitation, electricity, cooking fuel, floor, assets).

First, the household experiences on the 10 deprivations indicators were identified, and then identifies households as poor if they suffer deprivations across one -third or more than that of the weighted indicators. Based on the (Alkire & Foster, 2011) methodology. The MPI is created by multiplying together two numbers: the percentage of the population who are poor; and the average percentage of the weighted indicators that poor people experience (intensity). The

intensity level of the households indicates the poorest of the poor. The MPI reflects those in acute poverty; alternative cut-offs are used to report those who are vulnerable and those in severe poverty. Therefore, in this study, level of intensity and deprivation status of the households was calculated, In order to understand the level of the Multidimensional poverty index.

$$MPI = H(\text{The incidence level of poverty}) * A (\text{average Intensity of the poor's})$$

Table 4.16 MDP status with sub city

Number of deprived HHs	Bole Sub city
Head count ratio /H/	0.21
Intensity of poverty /A/	0.8
Multidimensional poverty index	0.168

Source: own survey, 2023

In Computing MPI of the households is necessary to calculate Head count ratio first. Then, In order to calculate the amount, the multidimensional poor peoples were identified and the variable assigned as q and n is the total number of sample population in the study.

$$(H)\text{Head Count Ratio} = \frac{\text{Number of Multidimensional Poor persons}}{\text{Total Sample Population}}$$

$$(A)\text{Intensity} = \frac{\sum_{i=0}^n \text{Censored deprivation score of individuals}}{\text{Number of Peoples Multidimensionally poor}}$$

As it was observed from the survey, 21 % of the household heads were found to be deprived in at least three of the indicator dimensions. The MPI is computed as 0.168. This indicates that about 17% of the sampled households are multidimensional poor. It was also found out that, among the total multidimensional poor household heads, around 82.81% of them are male whereas the remaining 17.18% are female headed households. Unlike other studies like Samuel E.(2021), the number of male multidimensional poor household heads are much higher than that of female household heads. From this we can infer that most of the male headed households are more

vulnerable for multidimensional poverty than female headed households in the study area. The result of this study is in line with the research conducted by Netsanet A. Mekonnen B. and Almaz H. (2021) that shows female-headed households had a lower probability of being poor as compared to male-headed households. This may be associated with females are being empowered and their decision making techniques are wiser than that of men.

Among the multidimensional poor households, 51.5 % are married households followed by divorced households which are 23.43 %. From the result, it was noted that those who are married tends to have more children's and unemployed family members.

Housing tenure can be one of the determinant factor for being multidimensional poor or not. According to the survey, 51.61 % of multidimensional poor household heads reside in houses rented from private and 29 % multidimensional poor household heads live in *Kebele* houses. From this, it can be concluded that those who live in rented houses from private tend to be more multidimensional poor than those who live in own occupied and rent from *Kebele*.

Regarding access to loan, 82.25 % of multidimensional poor household heads did not have access to credit. From this one can infer that having access to loan can create a better life and improve the households' living standards, change their life style by getting a better health care or nutrition, access to school, quality of house, access to safe water, improvement in sanitation.

The other determinant and contributing factor for multidimensional poverty was HH family size, the statistical result in the poverty and the household size confirmed that there is a significant positive relationship between household size and multidimensional poverty. Among the multidimensional poor households, 72.58 % of them were households having 4 and above family size and most non poor households 31.19 % have a family size of 1-3. It implies that, majority of households which have family size above 4 are more vulnerable for poverty than those who have less family size. This might be because of the growing size of unemployed person as the household size increases.

Education level is another factor that the study tried to see its relation to multidimensional poverty. According to the survey, among the multidimensional poor people, 74.19 % of them are categorized as illiterate and read and write. Education broadens the opportunity to occupational

and geographical mobility of labor. The more people get educated the probability to become poor decreases. This finding is in conformity with Netsanet A. and Samuel B. (2021).

4.4 Econometric results of the determinant of poverty

Binary logistic regression model was used to identify the effect of each predictor variables on multidimensional urban poverty status of the households. Therefore, the variables sex, marital status of the household, educational status, employment status, household size, person per room , housing ownership and access to credit were selected based on previous literature suggestion and the result of the variables were analyzed based on the survey result of the respondents.

Table 4.17 summary of logistic regression result

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Sex	2.951	.411	51.527	1	.000	19.127
Maritalstatus	-.223	.209	1.143	1	.285	.800
Educationallevel	-.249	.182	1.870	1	.171	.779
Employmentstatus	-.711	.246	8.348	1	.004	.491
Step 1 ^a HHsize	-.076	.251	.092	1	.762	.927
Personperroom	.799	.566	1.992	1	.158	2.223
Housingownership	.196	.276	.503	1	.478	1.216
Accesstocredit	-1.095	.555	3.885	1	.049	.335
Constant	-2.311	1.080	4.576	1	.032	.099

a. Variable(s) entered on step 1: Sex, Maritalstatus, Educationallevel, Employmentstatus, HHsize, Personperroom, Housingownership, Accesstocredit.

Source: own survey, 2023

The regression model formula is given below

logit(poverty status)

$$= f(\beta_0 + \beta_1 \text{Sex} + \beta_2 \text{Marital Status} + \beta_3 \text{Educational level} \\ + \beta_4 \text{employment status} + \beta_5 \text{household size} + \beta_6 \text{Person per room} \\ + \beta_7 \text{Housing ownership} + \beta_8 \text{Access to credit} + \epsilon)$$

From logistic regression SPSS result, the model is fitted below.

Where the statistically significant variables are

Constant (b_0)= -2.311 , $b_1=2.951$, $b_4=-0.711$, $b_8=-1.095$,

$\text{Ln}(\text{poverty status}) = -2.311 + 2.951 (\text{Sex}) - 0.711 (\text{employment status}) - 1.095 (\text{Access to credit})$

From these predictor variables sex of household head, employment status of household head, and household head obtained loan were found to be statistically significant predictor of multidimensional poverty status of the households at 5% and below level of significance. The remaining predictor variables were not significantly predicting the multidimensional poverty status of the households.

As it has been described in the table, the effect of sex of the respondents found positive and significant on the multidimensional poverty status of the households at ($p > 0.000$). The female-headed households had a lower probability of being poor as compared to male-headed households. For sex $e^{2.951} = 19.127...$ if 1 is subtracted from this value, we get 18.127 in the odds caused by being male. In percent term odds of being poor increased by 18 fold. The result of this study is in line with the study done by Netsanet A. (2021) that shows female-headed households had a lower probability of being poor as compared to male-headed households.

The employment status of the household head was also found significantly affects multidimensional poverty status of the household in the area. Specifically, as shown from the above table, a household headed by employed household head have less probability of falling into multidimensional poverty status than household headed the unemployed head. For employment $e^{-0.711} = 0.491...$ if 1 is subtracted from this value, we get -0.50. In percentage terms, the odds caused by being employed the poorness decreased by 50%. This finding is in confirmation with other studies like Samuel E. (2021).

Access to credit status of the households was another major indicator for the living standard measurement. The higher access to loan services the lower probability of multidimensional poverty. For access to credit, $e^{-1.095} = 0.335\dots$ if 1 is subtracted from this value, we get -0.665. In percentage terms, the odds caused by having access to loan the poorness decreased by 66 %. This implies that, households having access to loan can create a better life by doing their own business. This leads the household to improved living standards, change their life style by getting a better health care or nutrition, school and other contributing factors to standard of living like quality of house, access to safe water, improvement in sanitation, Therefore, households that has access to getting loan have lower probability of being multidimensional poor.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The overall aim of this study was to assess the level and status of urban multidimensional poverty and investigate the degree or intensity of its effect on livelihood of residents of Bole sub city. Both primary and secondary data sources were used to carry out the study. A total of 296 household heads were randomly selected from four *Woredas* (*Woreda* 9, 4, 1, and 7) of Bole sub city based on the high number of safety net beneficiaries.

From the overall respondents around 63.17% are females and 36.82% are males, the majority of whom (33.1 %) are between 35-44 age group. Large number of households deprived in sanitation (78.71%) followed by years of schooling (66.89%) and assets (44.93%). the lowest number of household is deprived in child mortality (5.40%) that may indicate the successful accomplishment of health sector keeping other indicators constant.

This study had three primary objectives at the outset. The first was to assess the prevalence and intensity of multidimensional poverty of Bole sub city. The second one dealt with investigating factors determining multidimensional urban poverty in the Sub city, and the third was to assess the effect of multidimensional poverty on livelihood of the household in the study area.

With regard to the first objective, the Foster and Alkire (OPHI., 2016) (Alkire & Jahan, 2018) method was utilised. Accordingly, the three major dimension of poverty namely Education, Health and Living Standards of the households were discussed.

The majority of the respondent households (71.28%) are unemployed and do not have permanent source of income. On the other hand, (15.54%) of the respondents are employed in different sectors whereas, the rest (13.17%) are pensioner. petty -trade (Gulit), trade and metal or wood work were the main source of income for the household. The highest majority of respondents (85.12%) have unemployed family size of 2-4 individuals in their families. 34.08 % of the respondents' average monthly income is below 4,500Br whereas 39.86 % of respondents have below 4,500 Br monthly expenditure per month. the large proportion of the respondents (71.95 %) of the household heads could not save even a small amount. The crowdedness was the main problem of the households around 94.61% confirmed the existence of three or more person per room. , Food consumption expenditure and house rent fees are the major ones followed by transport and medical costs. Due to the imbalance between their income and expenditure, 64.66 % of them forced to lead an inadequate life with the income they earn.

With regard to the second objective, male headed households (82.81%) are found to be more vulnerable to multidimensional poverty female headed households. Married (51.5 %) and divorced (23.43 %) households are more likely to be poor than never married and widowed household heads. Housing tenure can also determine for a household to be multidimensional poor or not. 51.61 % of multidimensional poor household heads reside in houses rented from private.

Access to loan, household size and education level of the household heads are other factors that determine for the household to be multidimensional poor and non-poor. Accordingly, a household having access to loan and with higher level of education has less probability to be multidimensional poor. Among the multidimensional poor households, 72.58 % of them were households having 4 and above family size.

5.2 Conclusions

There are various factors contribute for the poverty status of the households. And it could be measured with different methods, but majorly with, income poverty measurements and multidimensional poverty indicators. Multidimensional urban poverty, as defined using the standard cut-off of $k \geq 0.33$, is a widespread burden in Addis Ababa. There are various factors contribute for the poverty status of the

households. And it could be measured with different methods, but majorly with, income poverty measurements and multidimensional poverty indicators.

This paper attempted to assess the level and status of urban multidimensional poverty and investigate the degree or intensity of its effect on livelihood of residents of Bole sub city of Addis Ababa using binary logistic regression model. Based on the sample taken from safety net beneficiaries in Bole sub city, a primary level data that were collected from 296 households and five government officials were used for analysis. The study used education, health and living standards dimensions to compute multidimensional poverty index of the household.

Multi-dimensional urban poverty affects the livelihood of the poor sub city dwellers in many ways like education, access to natural resources like land, Physical resources (Infrastructure), Financial resources (wages , credit) , Social resources (Social networks). And it has a vicious circle effect on livelihoods. Being multidimensional poor leads to reduced livelihood opportunities and those who have reduced livelihood becomes poor.

The result of the Logit model captured predictor variables that had significant effects on the multidimensional poverty. The model fit results indicated sex of household head, employment status of household head and household member obtained loan were found to be statistically significant predictor of urban multidimensional poverty status of the households at 5% level of significance and rest predictor variable were not significantly predict the multidimensional poverty status of the households. Accordingly, the female-headed households had a lower probability of being poor as compared to male-headed households. A household headed by employed household head have less probability of falling into multidimensional poverty status than household headed the unemployed head. Access to credit status of the households was another major indicator for the living standard measurement. The higher access to loan services the lower probability of multidimensional poverty.

As poverty is more prevalent in the study area, the government as well as the development partners of the country should work hard to minimize the intensity of urban multidimensional poverty.

5.3 Recommendation

Based on the findings of the study, the following recommendations are forwarded to the policy makers, concerned government actors and other stakeholders to improve the poverty condition of the households:-

- To minimize multidimensional poverty, extensive assessment on the level of poverty should be conducted by the concerned body including AA Social Security Coordination and Follow up office.
- There is a need for comprehensive study on the effect of urban multidimensional poverty on its effect on livelihood
- Education, is a key socio economic driver for the development of the society in terms of health, and improvement of living standards and increases the employability of household heads. Therefore, the 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 is central in addressing incidence of poverty.
- Creating job opportunity for the poor is mandatory in order to minimize multidimensional urban poverty.
- Facilitating access to credit will contribute a lot in minimizing urban multidimensional poverty
- Government and non-governmental organizations must work harder on WASH projects to bring change on latrine services, with toilet building, maintenance and water pipe infrastructure
- In general, the problem of poverty in the sub-city can be reduced to a significant level so long as there are joint efforts in the identification of the causes and consequences of multidimensional urban poverty. This requires coordinated commitment from the government, NGOs and CBOs, researchers, the poor themselves, and other stakeholders.
- The study assessed the intensity and incidence of multidimensional urban poverty in the selected *Woredas* of Bole sub-city cannot be used to generalize for other sub cities. It is of the researcher's recommendation that future studies should be carried out at the city level so as to get a wider view of poverty profiles and policy implications.

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Annexes

Appendix 1. Household survey Questionnaire

Dear Sir/Madam,

My name is Wondwosen G/Tsadik. I am Master's program student at Addis Ababa University College of Development studies, Centre for Regional and Local Development Studies. This questionnaire was designed to collect information from households reside in Bole Sub City of Addis Ababa City Administration and aimed to " **assess Urban multidimensional poverty and its effect on livelihoods: In the Case of Bole Sub City**" as a research subject for the partial fulfilment of the requirements of Master of Art in Regional and Local Development studies. *Your response will be used only for academic purpose and kept confidential.*

Thank you in advance for your co-operation.

Wondwosen G/Tsadik GSR /0037/14

Email: yidured2013@gmail.com

Tel. 0911 176114

Addis Ababa University

Addis Ababa, Ethiopia

General Directions:

- i. You are kindly requested to give genuine responses.
- ii. You do not need to write your identification

iii. Please put a tick (√) in the appropriate box.

iv. Put the numbers you agree with to those questions which are not multiple choices.

Part-One: Question Related to Household Head

A. Household Characteristics

1. Age of household head
2. Sex 1) Male 2) Female
3. Marital status 1) Never married 2) Married 3) Divorced 4) Widowed
4. Year of Education of the Household

B. Employment /Occupation /

5. What is the employment Status of Household Head 1) Employed 2) Unemployed 3) Pensioner
6. If you are employed, what is your main occupation? 1) Self-employed 2) Government employee
3) Private Employee 4) NGO employee 5) Daily Laborer
7. If you are Self-employed, which type of own account /self-employment are you engaged in?
1) Petty-trade/ Gulit 2) Trade 3) Metal /Wood Work 4) Hotel service 5) Preparing and sale of local drink
6) Sale of food 7) Handicraft (embroidery, pottery) 8) others
.....
8. How many economically active (productive) individuals are there in your household unemployed?

Part II Socio-demographic Characteristics of the Household

9. Household member's size.....
Number of family members below age of 14.....

Number of family members between 15 & 64.....

Number of family members above 65.....

Part III. Household health, education and standard of living status

Health Related

10. Have any of your household members frequently suffered from diseases?

1) Yes

2) No

11. If "Yes" to Q 10. Inquire, what is the degree of illness

1.) Very critical

2) Critical

3) Moderate

4.) Simple

12. If your answer is 1 or 2 for Q. 11, inquire, have you visited any medical facility?

1) Yes

2) No

13. If "Yes" to Q. 12, inquire, which medical facility?

1) Government

2) Private

3) Traditional healer

4) spiritual

5) Other

(specify).....

14. If 1 to Q 13, inquire, why do you prefer government facility?

1) Because it has lower charge

2) Because of its good facility

3) Because of qualified professionals

4) Other (specify).....

15. If 2 to Q. 13, inquire, why do you prefer Private medical facilities?

1) Better treatment/hospitality

2) Better medicine

3) Efficient service

4) Other

(specify).....

16. If 3 to Q. 13, inquire, why do you prefer traditional medicine?

1) Low charge

2) Cures better than scientific medicines

3) Better follow up

4) Other.....

(Specify)

17. Does this disease bring an impact on occupation?

1) Yes

2) No

18. Is there a child/infant mortality/Age < 5years/ in the household in the past five years?

1) Yes

2) No

19. If yes for the above question what was the cause for the death?

1. Diarrhea 2. Malaria 3. Pneumonia 4. Infection 5. Other... specify

20. Is there a person with a communicable disease in your family?

1. Yes

2. No

21. If yes for Q. 20, what kind of communicable disease your family member had in the past six month?

1. TB 2. Malaria 3. HIV 4. other _____

22. Is there a person with a non-communicable disease in your family?

1. Yes

2.No

23. If yes, what kind of non-communicable disease your family member had?

1. Diabetes 2. Cardiac or heart disease 3. Cancer 4. Renal disease 5. Other_____

Education

24. What is the highest level of schooling you have achieved?

25. Is there any household member not completed primary education?

1. Yes

2. No

26. Are there any children in the household between 7-15 years old household member not attending school?

1) Yes

2) No

27. If your answer is yes for Q.26 above, what was the reason for not attending school?

- 1) No access to school 2) Lack of money 1) for schooling 3) Do not want/ no interest
4) To help family 5) Illness 6) Others(Specify)

Household living Standard

Water and Sanitation service availability

28. What is the main source of water for your household?

- 1) Private Piped water 2) Communal tap in the compound 3) Communal tap
outside the compound 4) buying water products 5) other
(Specify)

29. If the source is out of compound, how far is the water source from your home?

30. How many times do you get water per week?

54. How many rooms does this house have? Rooms

55. How many people live in one room?

56. What are the main construction materials of the house you live in?

1. Wood with mud 2. *Blockets* 3. Bricks 4. Other (Specify)

57. Housing conditions

The floor of the main dwelling is predominantly made of what material?

1. Traditional materials like dung 2. Parquet or polished wood
3. Cement screed 4. Plastic tiles
5. Cement tiles 6. Ceramic/marble tiles 7. Others

58. What are the materials that your house roof is made from?

1. Iron Sheet
2. Plastic thatch
3. Others specify _____

59. How do you rate the condition of the roof in your house?

1. Good
2. Leaks
3. Dilapidated/decaying

60. What are the materials that your house Wall is made from?

1. Brick
2. Blocks
3. Mud and wood
4. Plastics
5. Others specify _____

Appendix 2.

Key Informant Structured Interview Guide

Dear respondent,

Thank you in advance for your cooperation.

1. How do you describe the status and trend of multidimensional urban poverty in Bole *sub city*?
2. How do you describe the status and trend of the access of public services such as education, health centers, electric power and water access in the sub city?
3. What are the major causes of urban multidimensional poverty in the sub city?
4. Do you believe that households use improved latrine service? If not, what kind of latrine are they using?
5. What is the support of the city administration to solve the problem related to latrine problem?
6. Do you believe the culture of use of electricity for cooking is improved? What do you think is the reason/s for the improvement?

7. What are the major economic activities of the sub city especially of the poor community?
8. How do you think the problem of housing, lack of credit access and crowdedness adversely affect the households living condition?
9. How do you evaluate the government support for the reduction of urban multidimensional poverty in the area?
10. How do you describe the effect of MPI on livelihoods and what should be done to reduce urban multidimensional poverty in the sub city?