

ADDIS ABABA UNIVERSITY

COLLEGE OF SOCIAL SCIENCE

DEPARTMENT OF SOCIOLOGY

**Urban expansion and the changing socio-economic life of the
surrounding rural community: the case of woreda 03 Lami Kura
sub-city, Addis Ababa city Administration**

BY

Yehualashet Tadesse

October, 2021

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**A THESIS SUBMITTED TO THE DEPARTMENT OF SOCIOLOGY
IN PARTIAL FULFILLMENT OF THE REQUIRMENTS FOR THE
DEGREE OF MASTER OF ARTS IN SOCIOLOGY**

BY:-Yehualashet Tadesse.

ADVISOR: ZELALEM TEFERA (PhD)

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This is to certify that the thesis prepared by Yehualashet Tadesse entitled: Urban expansion and the changing socio-economic life of the surrounding rural community: the case of woreda 03 Lami Kura sub-city, Addis Ababa city Administration. ; submitted in partial fulfillment of the requirement for the Degree of Master of Arts in Sociology complies with regulation of the university and meets the accepted standards with respect to the originality and quality.

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| ----- External Examiner | _____ Signature | _____ Date |
| ----- Internal Examiner | _____ Signature | _____ Date |
| ----- Advisor | _____ Signature | _____ Date |

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Acronym

BBC – British Broad Cast

CSA- Central Statistics Agency

ETB- Ethiopian Birr.

FHH – Farmers Household

GDP- Gross Domestic Product

IDPR-Institute of development and policy research

MoFED – Ministry of Finance and economic development

MSE – Micro and Small Enterprise

OHCHR-Office of the high commissioner for human rights

PCC- Portland Community College

SNNPR-Southern Nations, Nationalities and peoples’ regions

UNCED- united nation conference on environment and development

UNPDF- United Nations Partnership Development Framework

WBG- World Bank Group

Definition of local terms

Areke- Local liquor distilled from fermented wheat

Debo- Working together for specific objectives in the rural area of Ethiopia.

Edir- Voluntary association established to help members in times of death

Injera- A flatbread used as a staple food

Iqub- Local rotating saving group

Kebele- The lowest administrative unit of government

Teff (*Eragrostis tef*)– A locally grown food crop that is often used to bake injera

Tejj- A local liquor made of honey

Tella- A local beer made from barley and gesho that is fermented with hops

Wereda- An administrative division of Ethiopia, managed by a local government.

ABSTRACT

This study has examined urban expansion and the changing socio-economic life of rural communities surrounding Addis Ababa with special reference to woreda 03 of Lami Kura sub-city. It emphasized the impacts of urban expansion on job opportunities of the households, and assessed the impacts of urban expansion on educational participation of the rural household members, the health condition of rural households and community after urban expansion, attitude and perception of rural households on urban expansion, social relationships and resource of rural households before and after urban expansion. The study employed both qualitative and quantitative research methods. In-depth interviews, FGDs, observation and survey methods were used as tools of data collection. In addition, secondary data were also collected from different sources. To analyze the urban expansion and the changing socioeconomic life of the surrounding farming or rural community the study used economic growth and sociological urban expansion theories. The study exhibited mixed findings. On the one hand, it was found that majority of the rural households lost their individual farming plots, communal grazing lands and subsequently the possibility of holding large livestock population due to lack of space. Consequently the peasant households were forced to change their livelihood orientation from mixed farming to specialized urban agriculture, employment in service sector jobs, construction works and manufacturing sectors jobs. Incorporation into urban setting also resulted in social disarticulation wherein the displaced farming community's social fabric was torn apart due to changing patterns of social organization, and scattered interpersonal and kinship ties. Likewise, life-sustaining informal networks of reciprocal help, local voluntary associations, and self-organized mutual services were disrupted resulting in loss of social capital. On the other hand, the study revealed that despite the initial economic disarticulation due to loss of traditional livelihood basis educational participation of peasant children has significantly improved due to construction of new schools in the area and easy access. Improvements in terms of access to healthcare and other urban social services have also been observed in the course of the study. Taking into account the above stated mixed results, the current researcher came up with a conclusion that if the process is properly planned and managed, it is possible to offset the losses incurred by farmers during initial displacement and loss of key assets, by benefits accruing to the same families due to access to improved economic and social infrastructures, and better employment opportunities.

Keywords:-urban expansion, household social and economic change, unemployment.

Chapter One

1. Introduction

This chapter highlights the background and context of the study, statement of the problem, objectives of the study, research questions, significance of the study, scope, limitations and organization of the thesis.

1.1 Background of the study

Urbanization has defined in various ways with different scholars. According to Mitchell urbanization is the process of becoming urban, moving to cities, changing from agriculture to other pursuits common to cities. As per 'Burgel', " the transformation process of rural area into an urban area is Known as urbanization(Neeti, n.d.).

Natural population increase (high births than death) and migration are significant factors in the growth of cities in the developing countries. The natural increase is fuelled by improved medical care, better sanitation and improved food supplies, which reduce death rates and cause populations to grow. In many developing countries, it is rural poverty that drives people from the rural areas into the city in search of employment, food, shelter and education(Ahlam,2017).

Urbanization is increasing in both developed and developing countries. However, rapid urbanization, particularly the growth of large cities, and the associated problems of unemployment, poverty, inadequate health, poor sanitation, urban slums and environmental degradation pose a formidable challenge in many developing countries. Although urbanization is the driving force for modernization, economic growth and development, there is increasing concern about the effects of expanding cities, principally on human health, livelihoods and the environment (UNCED,1992 cited in Ahlam, 2017).

Urbanization is caused by pull and push factors. These may be economic factors, developed or updated means of transportation and communication, developed health care services, civil facilities such as educational, health and better housing condition etc. infrastructure development like Banks, Post office, environmental factors and employment opportunities and so on.(Neeti,n.d.).

Urbanization and Economic growth are inextricably linked. Economic growth often implies the conversion of rural land to urban uses (residential, commercial and industrial) as regional economies transition from an agrarian-based economy to an urban economy based on industry and services. This process occurs in urban areas of developing countries undergoing structural economic changes as well as in exurban (or peri-urban) regions of developed countries that are impacted by economic growth of proximate urban area.(Irwin, n.d.)

According to Démurger & Gramlich infrastructure services—including power, transportation, telecommunications, provision of water and sanitation, and safe disposal of wastes—are central to economic production and urban growth. It is commonly agreed that infrastructure plays an important role in stimulating urban land development and private economic activity (Yan,n.d.).

The progress of urbanization has a number of impacts on societies, economies and environments including the development mechanism of infrastructures. On the other hand, infrastructure is the underpinning support of the various activities of peoples and communities, which promote urbanization (United technical college educator[UTCE] ,n.d.).

Many urban areas allow for better living standards, including superior educational facilities, better access to healthcare, modern housing, and more recreational activities (Miranda,2019).

Concerning employment opportunities rural areas commonly are agricultural. Urbanization and industrial growth create opportunities for jobs that pay more, are more diverse, and may be less

physically demanding. With industrialization comes the creation of jobs. Usually making a shift from an agricultural economy, industrialization paves the way for modern industries and will need more people to perform various jobs. Rural jobs such as farming and mining may be labor-intensive (that is, if they have not been taken over by machines or automatic devices), while urban employment opportunities — such as healthcare, business, and education — will need a considerable amount of people with a variety of skills to fill many jobs. (Miranda,2019)

Regarding environmental factors, water and sanitation issues are surfacing because of rapid population increases. With so many people needing resources such as food, water, fuel, and waste management, the population of urbanized cities are suffering from such as water scarcity, pollution, and sanitation. Additionally, this is leading to the spread of disease and poor health in heavily populated areas. (Miranda,2019)

In general urbanization process is usually expanding and growing to its surrounding areas at the expense of nearby agricultural farmlands (Minwuyelet, 2004). Urbanization is one of the main forces driving environmental and ecological change(Cui N. ,Feng C., Han R. and Guo L., 2019). The rapid rates of urbanization in most developing countries have led to massive housing shortages and qualitative deficiencies(Bewunetu 2016). According to Durlaugh,1995 urban expansion reduces the social interaction between people and changes the urban lifestyle. It results in alienation, social fragmentation and segregation.(Abebe,2012)

1.2 Statement of the problem

According to research conducted by Ahlam, 2017, urban expansion at Kutaber town changes farmers livelihood strategies to daily laborer, factory, non government, cottage industry and in government jobs. The urban expansion surrounding Debre Berhan town, changed households occupation to renting and crop sharing farmlands, fattening cattle and rearing dairy cows and to

non agricultural activities such as renting house, local alcohol making, running petty trade and restaurant (Zenebe,2019). The job opportunities of farmers dislocated surrounding Addis Ababa were daily labor, water vending, local alcohol making and animal breeding (Feyera,2005). According to (Asmera,2018) the main income sources of farmers surrounding the expansion of Holeta town were crop cultivation, own business and working in some one house. As far as my knowledge the previous researcher (Ahlam, 2017 , Zenebe,2019, Feyera,2005 and Asmera, 2009) were not studied the benefits farmers obtained from their livelihood changed due to urban expansion surrounding farmers households they studied. Therefore, I studied to full fill the gap.

Regarding education, urban expansion improved school participation of children. According to (Wubetu, 2019) study conducted at Dejen town, urban expansion improved the school participation of children/youth of rural households. Smilarly, (Konuk...etal,2016, AACPPO,2017, Henok,2014 and Asmera,2018) were concurrent to (Wubetu,2019) with the participation of students due to the expansion of urbanization to the rural area. The number of schools were also increased /expanded to the rural area. The student to teacher ratio were also studied after and before urban expansion in Turkey by Konuk...etal,2016 which indicated the improvement of the ration. To the best of my knowledge, adult school participation and attendance after urban expansion and the benefit they obtained from education and teachers turnover and school monitoring after and before urban expansion were not discussed.

Regarding infrastructures such as road, electricity, water, school, clinic, market, Bank, recreational places etc. accessibility became better at the expansion of Kutaber, Debre Berehan &Dejen town in the surrounding rural community (Ahlam, 2017,Zenebe, 2019 and Wubetu, 2019), respectively. Similarly, according to (Tena,2020) study at Suluta woreda the number of primary schools changed after urban expansion while (AACPPO,2017) also reported that the

distribution of health facilities across sub-cities of Addis Ababa. Road and transport facilities were also improved in Addis Ababa in quality and in number.(AACPPO,2017). As far as I was reviewed previous researches I was not obtained the farmers household challenges to access infrastructures specially water and electricity at their home and the farmers benefits due to expansion of infrastructures.

Urban expansion in developing countries have led to slum. The density of slum settlement and poverty of their residents combined with the general absence of water and sanitation facilities have raised serious concerns about the health condition of the slum dwellers(Gunter and Kenneth, n.d.). Even though access to health service and facilities due to urban expansion were reviewed in literatures ((Zenebe,2019) and (AACPPO,2017) the health insurance and education as well as the transmitted and non transmitted diseases due to urban expansion were not addressed to the best of my knowledge.

Even though awareness about urban expansion of Addis Ababa city on peri-urban community and the satisfaction of farmers on urban expansion of around finfine ,Tefki on their farm land and on the amount of compensation they obtained and promised were studied by (Abdissa,2005) and (Gadisa,2020) respectively .The attitude and satisfaction towards effects of urban expansion on socio-economic development were not discussed in those researches(Abdissa,2005 & Gadisa,2020).

Therefore based on the gaps mentioned above, the research question, the general and specific objectives of this study were stated as follows.

1.3. Research Questions.

Ø what are the impacts of urban expansion on job opportunities of rural households and the benefit they obtained from the job opportunities in the study area?

Ø what are the impacts of urban expansion on education of rural households and the benefit they obtained from the expansion of education in the study area?

Ø what are the impacts of urban expansion on the infrastructures accessibility of the rural community/households and their benefit they obtained from the expansion of infrastructure?

Ø what are the impacts of urban expansion on health of rural households and the benefit they obtained from the expansion of health service in the study area?

Ø what are the impacts of urban expansion on housing of rural household in the study area?

Ø what are the attitude and satisfaction of rural households on urban expansion

1.4 General objective

The main objective of this thesis is to examine the impact of urban expansion on socio-economic life of rural households.

1.4.1 Specific objectives

- To assess the impacts of urban expansion on jobs opportunities and the benefits farmers obtained from job opportunities of rural households in the study area.
- To find out the impacts of urban expansion on education and the farmer's households school attendance & participation as well as the benefit they obtained from school in the study area.
- To explore the impact of urban expansion on infrastructures accessibility and the benefit farmers were obtained from infrastructure in the study area

- To assess the impacts of urban expansion on farmers households health after urban expansion in the study area.
- To assess the impacts of urban expansion on housing of rural household in the study area?
- To evaluate the satisfaction and attitude of rural households on urban expansion.

1.5. Significance of the Study.

This study is significant in that it examines and describes the Impacts of urban expansion on the surrounding rural households of the study area. Specifically, it identifies the job opportunities, school participation, Infrastructure development and related issues of the rural community. In addition, the study provides rural households attitudes and perceptions towards education, jobs, health and housing. The study provides significant information and evidence to government and private organizations that work on urban development, education, and rural community job opportunities. It is hoped that this will aid them in their efforts to promote the growth of urban development, education, job opportunities surrounding the rural community. It is hoped that the findings of this study will be important additions to existing knowledge and literature on this subject.

Furthermore, the study could serve as a stepping-stone for academicians and consultants who may be focusing on similar topics and issues, particularly on urban expansion and the changing socio-economic life of the surrounding rural community on education, job opportunities and infrastructure and their attitude and perceptions on urban expansion in general.

The study is also significant as it recommends some practical measures to overcome the constraints facing job opportunities, education and infrastructure, thus enabling them to play a

key role in the reduction of unemployment, illiteracy and lack of infrastructure in the urbanization efforts made by the country at large.

1.6. Scope of the study

The scope of the study was the changing socio-economic life of FHHs who were living surrounding woreda 03 of Lami Kura sub-city of Addis Ababa specifically on the changing social service improvement or decline and economic benefit or decline of the rural households. The study was included impacts of urban expansion on job opportunities of FHHs, the change in education and health service of FHHs after and before urban expansion. The study was inclusive of urban expansion effects on FHHs on livestock and resources. In addition, it studied the effects of urban expansion on the social relationships of FHHs. Furthermore, it assessed the attitude and perception of FHHs on urban expansion as well as the satisfaction of FHHs on socio-economic changes after urban expansion.

1.7. Limitations of the study

Since the study has been focused on socio-economic changes of farmers at the household level, it was not included the change in individual farmers. The study was not looked at the change in women for equal access to services, property rights and political participation. The study was not also emphasizing the cultural changes of the rural community due to urban expansion. The study was not including the farmers which were evicted from their environment or the study location.

1.8. Organization of the thesis

The thesis is organized into five chapters. The first chapter of the thesis included an introduction to urban expansion and the changing socio-economic life of the surrounding rural community of the study area. The statement of the problem, objectives of the study, research questions and significance of the study are included in this chapter. The second chapter of the study is about the review literature of the study. The reviewed literature included, concepts of urban expansion,

impacts of urban expansion on rural community socio-economic life and theories of urban expansion. The third chapter talks about how the research was carried out. The methodology of the study was about the research design, sampling method, data collection process, data source and data analysis method. The fourth chapter is about the results and discussion of the study. Finally, the end chapter of this study is the conclusion and recommendation of the study.

CHAPTER TWO

2. Review Literature.

2.1 Introduction to Review Literature

In this chapter, conceptual definitions of concepts like urban expansion, household, housing, industrial and service sector jobs, infrastructure, economic and social changes are defined. Theories of urban expansion specifically economic theory and sociological urban expansion theory were also discussed. Urbanization is briefly explained in Africa and Ethiopia. The establishment and growth of Addis Ababa city was also reviewed broadly. Urbanization is also discussed with related to infrastructure , health and education. The socio-economic and environmental consequences of urban expansion. The expansion of infrastructures such as road, housing, health facilities an school facilities were also discussed. Finally the attitude and satisfaction of rural community towards Addis Ababa expansion were also discussed.

2.2 Conceptual definitions

Urban expansion:-is the expansion of decent employment opportunities, social services, infrastructure, energy, transportation and communication; access to housing services from cities to the surrounding area. It also preserves a healthy environment within the city and surroundings.

It leads to problems of soil erosion, segregation of low-income groups in ecologically sensitive areas and increased cost of infrastructure provision. It also leads to overcrowding in a particular area(Minwuyele,2004)

Peri-urban area:-are those areas immediately around a town or city. They are areas in transition from countryside to city(rural to urban) often with undeveloped infrastructure, where health and sanitation services are under pressure and where natural environment is at risk of degradation (open,n.d.).

Household:- two or more persons living together with common housekeeping, or a person living alone who is responsible for providing his or her meals(Harvey,1996)

Housing:-Housing is among the basic needs which have a direct impact on human welfare. It maintains an adequate standard of living and social inclusion. Housing secure people belongings create space to share with family (enabled to share space with their family). It also protects from heat, cold and rain (John, Paul & Jade 2013, cited in Bewunetu 2016).

Industrial Sector jobs: A sector which includes manufacturing jobs such as metal & engineering, textile and garment, leather products, woodwork products, agro-processing and handicraft products, and construction jobs such as building material production, cobblestone production, traditional way of mining extraction. (Konjit, 2020)

Service Sector jobs: - an industry that provides services instead of producing goods, for example, banks, hospitals, and hotels (Macmillan English Dictionary online, 2007). In addition, service sector jobs include solid waste collection and recycling, maintenance service, etc... (Konjit, 2020)

Infrastructure:-the basic systems and services, such as transport and power supplies, that a country or organization uses to work effectively. (Cambridge Dictionary,2011).The basic structure of an organization or system is necessary for its operation, esp. public water, energy, and systems for communication and transport.(American Dictionary,2011)

Economic change or consequence: Economic consequence of urban expansion on the rural community is a change in the livelihood of the households of the farming community into urban livelihood style or strategies such as working in industry and service sector. It is a change from agricultural sector strategies to industrial or service sector strategies. Economic change of urban

expansion is the change in living cost of housing, water, electricity, and transport services etc. (Feyera,2005)

Social change or consequence:- Social change of urban expansion is the change residing by the process of displacement that results in social fabric disorder and problems of solidarity(Feyera,2005). Change in educational, medical and recreational services(Harvey,1999).

Social capital is defined as any assets such as rights or claims that are derived from the membership of a group. This includes the ability to call on friends or kin for help in times of need, support from a trade or professional associations (e.g. farmers’ associations) and political claims on chiefs or politicians to provide assistant(Ahlam,2017).

Micro and small scale enterprises defined in terms of the product they produce, service they provide and the number of employees. According to the revised MSEs strategy(2011) and Ethiopian trade and industry office micro-enterprise are those enterprises having 5 workers including family members and its total asset not exceeding Birr100,000 for manufacturing enterprises or industry sector and less than or equal to Birr 50,000 for services providing enterprises while small enterprises are those enterprises having 6-30 workers and its total capital not exceeding Birr1.5 million for manufacturing enterprises or industry sector and less than or equal to Birr 500,000 for service providing enterprises. (Assefa,2014)

2.3. Urbanization in Africa.

The future of the world’s population is urban with more than half of the world’s people living in urban areas (55 per cent, up from 30 per cent in 1950)(UN,2018). The global urban population is projected to grow by 2.5 billion urban dwellers between 2018 and 2050, with nearly 90 per cent of the increase concentrated in Asia and Africa. In many regions, the share of population living in cities, as well as the

number and size of cities, will continue to grow, driven by a combination of factors, including a surplus of births over deaths in urban areas, migration from rural to urban areas and from abroad (Lerch, 2017 cited in UN,2018) as well as the urbanization of formerly rural areas.

In most of Africa, the urbanization process over the last several decades occurred in tandem with rapid population growth. For example, the United Republic of Tanzania grew from 7.7 million people in 1950 to 59 million in 2018 at the same time the proportion of the population residing in urban settlements increased from 3 per cent to 34 per cent. Similarly, the population of Ghana grew from 5.0 million in 1950 to 29 million in 2018 while the proportion urban has increased from 15 per cent to 56 per cent(UN,2018).

In Africa, most people move into the urban areas because they are pushed out by factors such as poverty, environmental degradation, religious strife, political persecution, food insecurity and lack of basic infrastructure and services in the rural areas or because they are pulled into the urban areas by the advantages and opportunities of the city including education, electricity, water etc. Even though in many African countries the urban areas offer few jobs for the youth, they are often attracted there by the amenities of urban life (Tarver, 1996 cited in Ahlam,2017).

Urbanization has not reached such high levels in many other countries or areas in Africa. However, in 2018, nearly 60 per cent of the populations in the region had urbanization levels below 50 per cent, and in nine countries less than one-quarter of the population resided in urban settlements. The least urbanized countries in Africa in 2018 were Burundi (13 per cent urban), and Niger (16 per cent urban) and Malawi (17 per cent urban)(UN,2018)

The median level of urbanization across the 58 countries or areas in Africa in 1950 was 10 per cent, but levels of urbanization ranged from below 3 per cent in Uganda, Botswana, Eswatini, Rwanda, Lesotho and Burundi, to 51 per cent in Saint Helena (home to around 5,000 people in 1950). Just nine countries of Africa had levels of urbanization greater than 25 per cent in 1950, but three of the region's largest countries were included among these: South Africa, where 42 per cent of the 14 million residents lived in urban settlements; Egypt, where 32 per cent of the nearly 21 million residents were urban; and Morocco where 26 per cent of the population of 9 million were concentrated in urban areas. Nigeria was Africa's most populous country in 1950, with close to 38 million people, 9 per cent of whom resided in urban settlements.(United Nation[UN,2018])

Each of Africa's 58 countries or areas is projected to further urbanize by 2050, when 44 (76 per cent) will be more than 50 per cent urban, of which 16 will be more than 75 per cent urban. However, substantial heterogeneity in the level of urbanization is projected to persist in the region. Although no African country is projected to be less than 25 per cent urban by 2050, 8 countries will be less than 40 per cent urban, including some of the region's most populous countries. Ethiopia is projected to grow from 108 million inhabitants in 2018 to 191 million in 2050 while the proportion urban is projected to increase from 21 per cent to 39 per cent, and in Uganda, 44 per cent of the projected 106 million inhabitants in 2050 are expected to live in urban settlements(UN,2018).

The level of urbanization in Ethiopia is low by African standard. The present level of urbanization is 17 % in Ethiopia, 51 % in Ghana and 40 % on average in Africa. Even if the level of urbanization in Ethiopia is low by African standard, the rates of urbanization in Ethiopia are exceptional. Until 1985 the growth rate was more or less the same as the whole Africa. But in the

last two decades the growth rate was very fast in Ethiopia, while the rate largely decline in other African countries(Tsegaye,2010).

In most African cities across the scale, urban economies are not growing at the same rate as the influx of population that reaches the urban areas. According to Deborah Potts(2009:254 cited in Appelhans,2017) rises in urban-based employment as seen in the Asian contexts of urbanization have generally not been observed in Africa.

African urbanization was not associated with economic growth in past decades. Urbanization helps poverty reduction in other regions but not in Africa (Ravallion, Chen and Sangraula (2007) cited in Arouri....et al 2014).

2.4 Policy Responses to the Expansion of Urbanization in Africa

In order to address the challenges of urbanization facing many African cities, some key reforms should be pursued by governments. These include (i) upgrading informal settlements through the provision of integrated infrastructures and services that target the marginalized groups, including the poor, youth, women and elderly people. In addition, governments should act proactively to ensure orderly urban development by defining and implementing clear urban development strategies; (ii) mobilizing urban financing from local and foreign investors. These resources should be efficiently and adequately allocated between central and local governments' urban projects and should encourage strengthening the role of municipalities; (iii) improving human capital through equal access to education and healthcare services and facilities for all categories of citizens in order to meet labor market needs; (iv) diversification of economic activities through the creation of new economic hubs oriented towards high sustainable and value-added production and exportation. These reforms should be more inclusive to ensure that all categories of citizens, regardless of their age, race, gender, ethnicity, or socio-economic conditions, have

equal access to adequate housing, basic infrastructure and services and equal job opportunities(African Development Bank Group[ADBG,2012]) .

2.5.Urbanization in Ethiopia.

The earliest evidence of urban settlement is found in the Axumite Kingdom (AD 200-600) which included several towns and ports . For several centuries following the fall of the Axumite Kingdom, Ethiopian urban centres emerged as forts and military garrisons to serve the needs of provincial feudal chieftains and later grew into relatively large towns : for example, Lalibela, Gonder, Ankober . Debre Berhan, Adwa and Mekele .' Until King Menelik II (1889-1913) the growth and expansion of urban settlements was extremely slow, due primarily to the continued military and political confrontations among regional feudal chieftains and the absence of a consolidated political power structure essential for the formation and perpetuation of urban agglomeration'(Girma and Mary,1985) .

Ethiopia is now on the onset of a demographic transition. Since the beginning of the 20th century, Ethiopia is experiencing a high natural population growth rate compared to the previous long periods where there was virtually no long-term population growth due to very high and varied birth and death rates. Population had grown more than five times since 1900, three times since 1955 and had doubled since the early 1970s. By the year 2008, the total population of the country was 79 million, second most populous country in sub-Saharan Africa after Nigeria (CSA 2007). Each year an estimated 2 million persons are added to the population. According to the projection made by CSA, the population increases at a rate reaching a minimum of 2,3% during the 2015-2020 period. If the projection is borne out, the population of the country will increase from its present level of 79 million persons to 137 million persons by the year 2030.(Tsegaye,2010)

Ethiopia has one of the fastest-growing urban populations in the world; with the number of people living in cities expected to nearly triple in the next two decades. According to the figures from Ethiopia's (Central Statistical Agency [CSA], 2012) the urban population was estimated at 17.4 per cent, up from 16 per cent in 2007.

The urban areas offer migrants from rural areas better infrastructure, increased access to services and more job opportunities. Ethiopia's urban population has more than doubled in the past 20 years, from 7.3 million in 1994 to an estimated 16.7 million in 2014(CSA,2007).

Over the past 30 years, Ethiopia's annual urban population growth rate has been higher than the average in Sub-Saharan Africa (which itself is among the fastest urbanizing regions in the world). According to CSA projections, the urban population is set to nearly triple between 2012 and 2037, to more than 42 million people(WBG, 2013)

Urbanization in Ethiopia may be even higher as a result of several factors such as migration to new towns and urban centers around planned megaprojects, reclassification of rural villages as an urban centre and formal expansion of existing urban boundaries to incorporate nearby settlements, as a result of heavy demand for land for residential areas and establishment of manufacturing industries. (World bank group [WBG],2013).

The total number of urban centers in Ethiopia is close to 1,000;and the level of urbanization is a little more than 19%.There is a large disparity between the levels of urbanization among the various regions. Oromiya, Amhara, SNNP and Tigray regions account for about 70% of the national urban population(AACPPO,2017)

Addis Ababa, Mekele, Adama, Gondar and Dire Dawa are the largest cities with population sizes greater than 250,000; Hawasa, Bahir Dar, Jimma, Dessie, Jijiga, Shashemene, Bishoftu, Harar,

Sodo and Arba Minch are medium-sized cities with a population ranging from 100,000 to 250,000; while the remaining are small towns (CSA, 2007).

Ethiopia is expected to be 30 per cent urban by 2028, while its urban population will exceed 42 million by 2032. Before 2018, natural increase is expected to be the largest contributor to urban population growth, contributing between 266,000 and 429,000 urban residents each year, approximately 40 per cent of total annual urban population growth. Migration to an existing urban centres and statistical reclassification of rural villages will also be significant, making up 33 per cent and 24 per cent of the total urban population growth in 2012, respectively. Finally, formal expansion of existing urban areas will consistently account for 2 to 4 per cent of the total urban population growth each year, from 22,000 in 2012 to 67,000 in 2032. (WBG, 2013).

Population is quite unevenly distributed in the various regions of the country. 81% of the total population is concentrated over 50% of the total landmass. Population density at the regional level varies from less than 10 persons per sq. km. to 4572 persons per sq. km. in Addis Ababa, the capital city. Nearly 80% of the population lives on only 37% of the total area of the country, while the remaining 20% lives on 63% of the country's land area . The Ethiopian population has traditionally been highly concentrated in the highlands(Tsegaye,2010).

In parallel with rapid urbanization, Ethiopia is going through a demographic transition. The labour force-up from 4.7million in 1984 to 26.5million in 1994 and 33 million in 2005-is projected to rise to 82 million by 2030. Ethiopian cities now employ 15 per cent of the labour force and contribute 38 per cent to domestic products (GDP). If well managed, urbanization could be one of the most important catalysts to promote economic growth, create jobs, and connect Ethiopians to prosperity(WBG, 2013).

Cities have an increasingly important role in the economy. Cities account for over 38 per cent of the country's GDP, they employ -formally and informally -15 per cent of the national workforce. An important reason why cities contribute to economic growth above their employment share is the high productivity associated with predominantly urban sectors, such as services, which contribute strongly to national value-added growth(WBG, 2013).

As Ethiopia urbanizes, it is no surprise that this has been associated with increased rates of economic growth, with this relationship becoming stronger after 2007-2008. The relationship between economic growth and urbanization in Ethiopia over three development periods from 1981-1992 characterized by yearly erratic low growth at an annual average rate of 0.24 per cent for a decade; the nineties (1992-2003) with a steady average annual rate of 4.6 per cent; and contemporary growth (2003-2013) characterized by fast growth rates averaging 10.4 per cent per year with urbanization and economic growth accelerating after 2007-2008(WBG, 2013).

The share of agricultural in total employment decreased by only 4 percentage points (from 81% to 77%). Total employment increased by 12.2 million between 1996 and 2013, with agriculture absorbing 72 per cent of this increase, followed by trade (8%), manufacturing (8%), other services (7.4%) and construction (3%). It is noted that trade and other services accounted for 3.0 and 2.8 million jobs in 2013, respectively doubling their 1996 values. Jointly, these two sectors countries for almost 15 per cent of total employment(WBG, 2013).

percentage distribution of occupation of the employed Population in urban areas of the country (aged ten years and above), shows that at the country level the highest proportion (24,8%) of employed persons are engaged in Service workers, Shop and Market sales, and 24, 6% were engaged in elementary occupations. Next to this occupational group are persons engaged in Crafts and related trades, constituting 22,6% of the total employed persons. Skilled agricultural

and Fishery, Technical and Associate Professionals, Clerks (“white collar occupations”) make up about 8,2%, and 5,5% and 4,8% percent of the country’s total employed persons, respectively. Plant, Machine Operators & Assemblers, Professional, and Legislator Senior Officials & Managers, make up insignificant proportion of the country’s urban total employed persons. They constitute altogether only 9,5% of the country’s urban employed persons(Tegenu,2010).

Between 2005 and 2011, manufacturing and industry together accounted for 58 per cent. Employment across these three sectors, which together made up 70 per cent of value-added growth over that period, is heavily concentrated in cities. During the same period, predominantly urban activities such as financial and real estate services, transport and logistics, and wholesale/retail have grown both in value-added and employment (WBG, 2013).

The service sector added over 200,000 new jobs a year in urban areas, bringing the contribution of cities to overall growth in the sector. Of the nearly 2.8 million new jobs created in Ethiopia between 2005 and 2011, 60 per cent were in urban and 40 per cent in rural areas. This shows the increasing importance of urban areas for job creation in the sectors generally associated with structural transformation (WBG, 2013).

2.6. The Establishment and growth of Addis Ababa city

Addis Ababa had established in 1886. Since its establishment, Addis Ababa has undergone many changes in terms of its size and demographics, its finance and economic structure, its physical and spatial organization.(AACPPO,2017).

According to UN-Habitat(2008) Addis Ababa is hosting 30 percent of the urban population of Ethiopia. The population have nearly doubled every decade. In 1984 the population was 1,412,575 in 1994 it was 2,112,737, and it is currently thought to be 4 million. In estimation, the population will be reaching 12 million in 2024.

Concerning the spatial development, Empress Taitu had created several localities known as ‘Sefers’ around the houses of the novelty. The majority of the houses had been mud constructed with thatched roofs. The National Palace, Taitu Hotel, the La Gare train station, and most of the existing public hospitals were built during this period. (AACPPO,2017).

During an Italian occupation period(1935 to 1941) modern municipal services were instituted. Several roads and arching bridges, arcade shops in Merkato, and brick and wood residential villas were also constructed at this time.(AACPPO,2017). Modern houses were built, many roads were paved ,water reservoir at Gefersa to the west and the building of hydroelectric station at Akaki to the south were established(Addis Ababa,2021).

During post Italian period (1941-1974) a better organized urban system and a more ‘urban’ lifestyle had emerged. A small segment of society's relationships, clothes, sphere, and quality of physical development had changed.(AACPPO,2017). Since 1950 Addis Ababa became center of educational center of the country. It is the city of Addis Ababa University and contains several teacher-training colleges and technical schools. Also located in the city are the Museum of the Institute of Ethiopian Studies and the Yared School of Music, both of which are operated by the university; the National Library and Archives(Addis Ababa,2021).

The Dergue era or the socialist regime (1974 -1991) nationalized urban land and extra houses, and had set a maximum threshold for private capital accumulation. This had inhibited investment, economic growth as well as urban development. New and decentralized administrative units like the ‘Kebele’ had been established to tighten political control. The idea of homogenization took root in standardized public and cooperative housing built from bricks and hollow blocks.(AACPPO,2017).

Post-Dergue Period, (1991-present) The city's population has grown by more than 80% in the last twenty years and the total built-up area of the city has increased by at least 25% in the last decade only. Innovative projects linking job creation, private sector development, infrastructure and housing development had been implemented. Large infrastructure investments in road construction had accelerated the process of change. Condominium housing in more than a hundred sites in the city, large residential housing construction by private real estate companies, the booming of the construction of commercial high-rise buildings all have been influential in reshaping the spatial organization and productivity of economic activities.(AACPPO,2017)

The existing settlement pattern is a mixed vibrant environment, but with diminishing functional hierarchies. Moreover, this is also a period where most open spaces and green zones disappeared under concrete.(AACPPO,2017)

In terms of space or land the city Administration of Addis Ababa's major challenges is said to be confronting to informal settlers who built unauthorized houses around peri-urbans. Unauthorized land transactions dominated by conflicts related to access and control of land. It is also the place where big development's undertaken. In addition, the unprecedented demographic change and spatial growth in Addis Ababa aggravated land insecurity of farmers residing in peri-urban areas. Therefore, the farmers were preferred to sell their land to informal buyers or intermediate dealers because of uncertainty of government promises with amount of compensation . They also expect that their land will be taken by the city administration at any given time when it is needed for urban expansion(Swiss Agency for Development and Cooperation,[SADC],2017).

In the case of economic growth ,Addis Ababa is one of the fastest-growing cities in Africa. It is the growth engine for Ethiopia and a major pillar in the country's vision to become a middle-income, carbon-neutral, and resilient economy by 2025. Addis Ababa's economy is growing

annually by 14%. The city alone currently contributes approximately 50% towards the national GDP, highlighting its strategic role within the overall economic development of the country. (WBG,2015)

Despite the strong economic growth trends, Addis Ababa faces significant development challenges. For example, unemployment and poverty levels in Addis Ababa remain high, estimated at 23.5% and 22% respectively. More than one in four households report an unemployed adult compared to one in 10 households in other urban areas, and the informal sector employs about 30% of the economically active labor force in the city. Moreover, the physical development patterns witnessed in recent years are driving up the cost of infrastructure delivery. Addis is expanding in a sprawling manner, with growth in urban extent.(WBG,2015)

outpacing population growth. The result of this growth is an estimated 46% of vacant or underutilized land. At the same time, the city centre has extremely high density (up to 30,000 people per km), concentrating around 30% of the population on 8% of the land, generally with poor living conditions. (WBG,2015)

In order to provide solutions for the problems the local government is also struggling to deliver basic services to all its residents, providing clean water to only 44% of the population and sewerage services to less than 30%. Recognizing the strategic importance of Addis Ababa, the government is taking steps to address important urban issues such as improved land-use and transportation planning, the development of low-income housing, expansion of wastewater collection and treatment facilities, efficiency enhancements to the water supply system, and establishment of an urban safety net.(WBG,2015)

2.7. Theories of urban expansion

Urban expansion is expressed by different scholars with various theories. Among the theories of urban expansion, some of them are population growth theory, the economic growth theory, sociological urban expansion theory, dependency theory, theory of endogenous urbanization, and theory of modernization. In explaining the social and economic consequences of urban expansion on the surrounding rural community I have used economic growth theory and sociological urban expansion theory.

2.7.1 Population growth theory

The proponent of the theory is Coale-Hoover. According to him, high population causes socio-economic development. Rapid population growth led to an erosion and breakdown in customary laws and rules governing sustainable use and management of land and other common property resources. Agriculture production is lagging behind population growth in Africa. Sub-Saharan Africa has abundance of land with lowest agricultural yields.

Population growth may boost labor demand, but definitely boosts labor supply-35 million people will enter global labor forces/year. Population growth contributed to forest loss all over the world. population growth shrinking crop land per capital in many rapidly growing countries. Increase in population affect both quality and quantity of water resources. The demographic and societal consequences of population growth are international and internal migration from rural to urban areas, emergence of gigantic cities and shanty towns, pressures on government social institutions e.g. schools and hospitals and disruption of traditional family support systems, increase in crime rate?(Hopkins,2006)

2.7.2 Economic growth theory

The proponents of the theory were Barnes K, Morgan J, Roberge M, and Shannon L. The theory focuses on the expansion of economic bases such as for each person income and employment rate increases demand of new housing places and related infrastructures. In addition, the establishments of new industries at the urban periphery forced farmers from their land possession. (Barnes et al. 2001 cited in Yeshiwas,2018)

According to (Fulton,2001) while urbanization is very often the result of economic growth, it also occurs in the absence of economic growth. For example, many metropolitan areas of the U.S. are still urbanizing land despite little or no population growth in recent decades.

According to (Briggs and Yeboah,2001) in the developing world context, some scholars have suggested that sub-Saharan Africa is a country in which urbanization has occurred to a large extent independent of economic development. For example, some evidence indicates that urbanization in sub-Saharan African cities occurs largely in peri-urban regions, is mainly residential rather than production-based and is driven by domestic investment and migrant's remittances(Irwin,n.d.).

urbanization patterns also influence economic growth. While a variety of factors influence economic growth, a commonly held view is that it results from productivity gains due to technological innovations and investments in human capital. Negative spillovers from urbanization, including congestion and high land rents, may deter firms from locating in larger cities and thus have a dampening effect on economic growth in these places(Irwin,n.d.).

2.7.3 Sociological urban expansion theory

The proponent of the theory was Briassoulis H. The theory emphasized the importance of human agency, social relation, social networks and Socio-cultural changes in bringing about social, political, economic and other changes. (Briassoulis, 2000 cited in Yeshiwas,2018). The theory was directly interlinked with the human ecological theories which were developed by Robert Park and Ernest Burgess in 1925 relating the human behaviors with their physical and social environment in urban and peripheral areas. Robert Ezra Park believed that the city and life in the city is a product of competition in the natural environment. He believed city to be a social organism with distinct parts bound together by internal processes, not chaos and disorder(Theories, n.d.).

According Ernest Burgess concentric zone theory city grow and develop outwardly in concentric circles. Louis Wirth urban theory focused on urbanism. According to him city is large, dense with permanent settlement an socially and culturally heterogeneous people. Urbanism was a function of population size, density, and heterogeneity. Population size: creates great diversity because large numbers of people coming together logically increase potential differentiation among themselves, and with migration of diverse groups to city; creates need for formal control structures, e.g. legal systems; supports proliferation of further complex division of labor specialization; organizes human relationships on interest-specific basis, i.e. "social segmentalization", where secondary relationships are primary, in essence urban ties are relationships of utility; creates possibility of disorganization and disintegration Population density: intensifies effects of large population size on social life; manifests quality of separateness, e.g. economic forces and social processes produce readily identifiable distinct

neighborhood, "ecological specialization"; fosters a loss of sensitivity to more personal aspects of others, instead tendency to stereotype and categorize; results in greater tolerance of difference but at same time physical closeness increases social distance; may increase antisocial behavior.

Population heterogeneity: with social interaction among many personality types results in breakdown of the rigidity of caste lines and complicates class structure, thus increased social mobility; with social mobility tend to have physical mobility; leads to further depersonalization with concentration of diverse people (Theories, n.d.).

2.7.4. Endogenous or self-generated theory

The proponents of the theory were Childe, Harvey, and Lampard. The theory of self-generated or endogenous urbanization suggests that urbanization requires two prerequisites - the first is the generation of surplus products that sustain people in non agricultural activities. The second prerequisite also suggests the achievement of a level of social development that allows large communities to be socially viable and stable.

The theory of self-generated or endogenous urbanization focuses on the rural-urban population shift as the foundation but it identifies industrialization as the basic driver behind the movement of rural population to urban areas for factory jobs (Peng ...etal, n.d.).

2.7.5. Theory of modernization

According to the proponents (Kasarda and Crenshaw, 1991) first, the present state of urbanization in any given society is set by its initial state at the onset of modernization. Secondly, technology is fundamentally more important than a society's social organization in shaping urbanization. Finally, the path and pattern of urbanization within and between

developed and developing countries are most likely to converge through cultural diffusion, despite breeding inevitable social disequilibria (Reyes, n.d, Peng...etal, n.d).

2.7.6. Dependency theory

Dependency/world-system perspective on urbanization advanced by Frank(1969), Wallerstein(1979) as well as Goldfrank(1979). It links recent changes in the roles and organizations of economies of developing countries to the growth and extension of capitalism in the capitalism world system. From this world-systemic perspective, urbanization can be seen as an internal locational response to global economy. First, dependency theorists assume that a uniquely capitalist development pattern exists, asserting that capitalism is a unique form of social organization. Second, capitalism requires a certain social structure, which is characterized by unequal exchange, uneven development, individual social inequality, core-periphery hierarchies, and dominance structure. Finally, dependency theory models social organization, technology and population dynamics as endogenous factors in development and urbanization that are constrained by exogenous forces (Timberlake, 1987 cited in peng etal...n.d.).

2.8. Urbanization and education

The education in rural schools is found to be less effective than the education in larger urban schools. Rural schools fail to meet resources such as a library, computers for the needs of students in rural schools. Teachers and administrators are not provided with many opportunities to participate in professional development activities in rural areas. The geographic distance to the city centre and lack of official support makes it more difficult to appoint, recruit and retain well-trained teachers in rural areas. While the school participation of rural students decreased due to the above-mentioned problems the expansion of urban changes or improve the resource

accessibility such as a library, computer and support teachers and administration to participate in professional development activities(training) and provide transport services to solve the geographical distances to the city centers.(Konuk...etal,2016)

Urbanization improves access to basic education for all. Expanding education systems in urban areas is easier and costs less than in rural areas. Thus Africa's rapid urbanization is expected to increase enrollment, especially at the primary level. Indeed, the nature of cities appears to provide incentives for investment in education by residents. Returns to education are generally higher in urban than rural areas-and so literacy rates and enrollments should be higher in urban than rural areas(Arouri...et al, 2014).

There is a positive relationship between urbanization and education. School enrollment at both primary and secondary levels increases with urbanization. While enrollment in primary schools is less than 50% in regions with an urban population share of less than 20%, it is more than 88% for regions with an urban population share between 50% and 90%(Arouri...et al, 2014)

Enrollment in secondary school shows more profound effects. The average enrollment rate in areas with urbanization is less than 20% is 12.2%. This rate is 55.2% for areas with an urbanization rate between 50% and 90%. Tertiary education is very weak in Africa with only 3.9% of the population enrolled. Urban enrollment in tertiary education in areas with an urban share between 50% and 90% is 10 times as high as in areas with urbanization below 20%. Generally, as urban population share increased the enrollment in school increased and vice versa (Arouri...et al, 2014).

According to data obtained from statistical abstract produced by the Educational Bureau of Addis Ababa, gross enrolment ratio in 2011 for kindergarten, primary school and secondary school levels was close to 89, 108 and 80 respectively. The ratio for primary school is above100,

which is reckoned to be due to the presence of considerable enrolment outside the eligible school-age bracket (7-14). Examination made on the trend of enrolment ratios since 1999 generally revealed an increasing trend in the case of kindergartens, a declining trend in case of primary schools and a constant trend for preparatory schools(AACPPO,2017).

The major problems related to the education services include: low enrolment ratio (68% in case of KGs, 73.4% in case of Primary schools and 36.1% in case of Secondary schools), dominance in the number of private schools which are not affordable to the majority of the low-income population, occupation of below standard plot size (50% of the KGs, 80% of the primary schools and 52% of the secondary schools), incompatibility of schools with nearby functions(which refers to 14% of the secondary schools) and shortage of laboratory facilities in secondary schools(AACPPO,2017).

The current school attendance aged five years and above of Addis Ababa in 2012 was 1,202,356 out of this the females are 659,766 and the male 542,590. The number of literates whose age ten years and above in the Addis Ababa Administration is 2.278,116 in 2012(CSA, 2012).

2.9. Urbanization and Health

In developing countries, large number of people living in, and moving to, urban areas have led to the formation of large and rapidly growing informal urban settlements often referred to as "slum". The density of slum settlements and poverty of their residents combined with the general absence of water and sanitation facilities have raised serious concerns about the health of slum dwellers in general, and the health of children growing up in slum in particular(Gunther and Kenneth, n.d.).

Sub-Saharan Africa is experiencing rapid urban growth. Cities enable greater access to health services and improved water and sanitation infrastructure, leading to some improvements in

health. However, urban settings may also be associated with more sedentary, stressful lifestyles and consumption of less nutritious food(Pinchoff...etal,2020).

Residents of urban environments often have greater access to health care and social services, although access may differ by city size and may not be distributed equally among all residents. Urban environments tend to offer greater access to education and increased job opportunities, both of which can improve health(Pinchoff....etal,2020).

Urban populations have more chances to reach hospitals and care centers and to have access to sanitation. Health care systems are also more developed, which may lead to better health performances than those in rural areas(Arouri...et al,2014).

Access to health facilities is better at urban population is more than and equal to half of the total population. On average, only 46.2% of African children are taken to health providers: only 41.7% in areas with an urban population share less than 20% and 51.2% in areas with an urban population share between 50% and 90%. (Arouri...et al, 2014).

Health care organizations in urban environments have several advantages over those based in rural areas. From patient perspective, access to primary care, preventive care and community resources tends to be better in urban areas, which increases the likelihood of completing annual wellness visits, receiving regular care and monitoring chronic conditions. A migration toward urban areas can lead to overcrowding as well as exposure to poor air quality and limited opportunities for physical activity. “Health systems may be faced with higher numbers of individuals with respiratory conditions, obesity, diabetes, and cardiovascular events, as well as infectious diseases spreading quickly due to people’s close proximity.”(Appold K.,2019). Greater competition among health systems exists in urban areas, with several large health systems often competing for patients. “While this should result in lower costs, it often has the

opposite effect as more integration has led to higher commercial health insurance rates,” (Appold K.,2019).

Generally, access to health care system in urban centers is easier than in rural areas even though the infectious and non infectious disease are quickly spread due to people's close proximity.

2.10. Urbanization and Road infrastructure

The implementation of road infrastructure projects is changing the socio-economic developments, and they change the social groups with the surrounding rural community within the peri-urban areas. The project scaled up residential development as the roads contributed to housing rents and land prices to increase and rendered peri-urban communities along with them as attractive zones for real estate developers. (Sarah---etal,2020).

Road infrastructure projects also lead to the improved living condition of those living near such projects through possibilities for social development, economic opportunities and enhancement of the welfare of the communities. The road project improved access to facilities and services such as schools and hospitals and benefited the rich, who own land at the expense of the poor. It increases income disparity between the poor and the rich (Porter,2011; Leinbanch,2000, cited in Sarah ...etal,2020).

The road infrastructure expansion promotes interactions among residents, especially those who are engaged in commerce. (Doan and Oduro 2012 cited in Sarah--etal,2020). In contrast, the road infrastructure projects can change the social fiber and integration to a certain degree, and it limited interaction and relationships between environments because it led to the displacement of poor residents into the hinterland and break down of an environment into small areas respectively, (Bocareso....etal,2015 cited in Sarah...etal,2020).

According to (Sarah.....etal,2020) studies on how road infrastructure projects affect the social and economic aspects in Ghana, Kisumu and Accra, the social impacts have resulted in enhancement of social interaction in Kisumu residents of researched communities. While the road projects in social impacts was a decline of social integration in Accra residents of researched communities due to the springing up of gated communities replacing non-gated ones after the road expansion. The road expansion in Kisumu communities also affects the security of the residents as stated by the officials of the residents “...the bypass road has also contributed to insecurity, there is a flyover (overpass) where thieves and muggers hide at night and attack people. The place is a bit dark at night, so thieves take advantage. Similarly, crimes such as pick-pocketing and snatching of bags from women by criminals on motorbikes were reported after the road expansion.(Sarah.....etal,2020).

The Road infrastructure expansion increased the market for agricultural goods and services, it also fueled employment opportunities. (Gibson and Rozelle, 2003,cited in Sarah ...etal,2020).

According to the study on the impact of road infrastructure development projects on local communities in peri-urban areas: the case of Kisumu, Kenya and Accra, Ghana Small-scale businesses like welding, vegetable vending, among others, sprung up along the Bypass. Women in the communities gained employment through the sale of food to road construction workers not only during the road construction but even after some of them are earning income for their livelihoods through small businesses by the roadside. An interview with one of the Obunga residents confirmed an increase in house rents and property values following the bypass construction. (Sarah...etal,2020)

2.11 Urbanization and economic transformation

Addis Ababa contributes close to half of the national GDP with economies based in non-agricultural sectors. The economy of Addis Ababa is dominated by the service sector, which contributed 75% of the cities GDP in 2014. The service sector is followed by the industry sector which contributes for 24.3% of the GDP. (WBG, 2015)

Addis Ababa is the highest employing urban centre in Ethiopia. In 2012, it accounted for 46.6% of total industrial employment and 21.7% of all employment. (WBG, 2015) However, there is high unemployment in Addis Ababa. To reduce the high unemployment, the city government organizes the unemployed in micro and small scale enterprises(MSEs) and provides support in the form of access to loans, training and market link.(WBG,2015).

Farmers surrounding, Addis Ababa faced the problem of adaptation with the new livelihood strategies the educated and skilled segment of the community get the urbanization process as an opportunity whereas those who lack modern education and technical skill get marginalized. The skill development needs to give as an intervention program to mitigate these barriers. Some local households who are dispossessed from their land choose to participate in those low paid jobs like guards, cleaning etc. On other hand, the households who manage their cash compensation invested and could run their business like hotel, shop, renting houses, etc.(Efa and Gutema,2016).

MSEs reduce unemployment or create job opportunities, especially in developing countries. The share of employment in MSEs is 62% and the large scale enterprise is 38% for lower-income countries. Therefore the small scale enterprises are more labor-intensive than larger ones. (Workeneh, 2007, cited in Assefa,2014).

2.12.The socio-economic and environmental consequences of urban expansion.

2.12.1 The social consequences of urban expansion surrounding rural community of Addis Ababa.

Social consequences of urban expansion are social services like transportation, health, education, banking, postal and telephone and the cultural consequences. According to (G/Egziabher,1998) urban expansion has a positive consequence on services such as transportation, public and private services of health, education, banking, postal, telephone, wholesale and retail, sales of manufactured goods and professional service of lawyers (Zenebe,2019).

Urbanization allowed agricultural labor to be released for urban jobs by bringing food from distant areas. For people, a large urban area offers a wide area of job choice, shopping outlets and educational, medical and recreational opportunities (Harvey, 1996).

As the city grows in size, more highly skilled staff become available, thus attracting other firms to provide basic public utilities and services such as transport, water, gas, sewerage, refuse collection libraries also increased.(Harvey, 1996).

Similarly, urbanization changes access to infrastructures like water, clinic, electric and telephone etc. according to Ahlam (2017) urbanization enables 22% of the sample respondents to access all types of infrastructure. Urbanization also enables 17%, 12%,11% of households to access clinics, schools and water respectively. In addition, the urban expansion improved the housing status of the farming community surrounding Kutaber town. It increased the number of rooms of the farmer's households. The majority of the households had only a house with four (4) rooms

before urban expansion, but they have currently a house with eight 8(eight) rooms after urban expansion(Ahlam,2017)

Moreover, urban expansion to the peri-urban rural area has also positive consequence on children's education because they do not go far distances after urban expansion and this gives them enough time for study. (Wubetu,2019)

Regarding, cultural consequences urban expansion has tremendous impacts on the previously existing communities cultural practice. For instance in sululta area all cultural practices are affected negatively because of lack of existing institution or authority that stands for preservation and recording of the areas rich cultural practice. First, urban expansion and its modern, individualistic, and professional based relationships has a potential to demolish farmers' cultural practices which is established on traditional and kinship based relationship. Second, urban expansion destroys cultural practices through expropriation and displacement of farmers from their original habitat.

Farmers' engagements in cultural practice before urban expansion varies from high to very high. However, being one of the adversely affected elements of the community, this figure is changed to fair category after the urban expansion. In particular, the data collected through questionnaire show that 80% of informants had a very high engagements in cultural practices before the urban expansion. However, after urban expansion this figure changed to the opposite. Now, only 5% and10% of informants responded to have very high and high engagements in cultural practices, respectively. The rest or 85% of informants responded to have 'fair' category of engagement in cultural practices(Beka,2016).

Therefore, one can come to the decision that these communities are subjected to such a great loss of cultural practices and all of its values as the result of urban expansion.

2.12.2 The economic consequences of Addis Ababa city expansion on the surrounding farmers.

Economic consequence of urbanization on rural community is the change in land, financial capital, livestock resources and livelihood strategies of the farmers. Accordingly, urban expansion to the rural community of Kutaber town decreased the number of livestock, land and financial capital (annual quintals produced). The type of land lost due to urban expansion is agricultural, residential and grasslands while the number of oxen, cows, sheep and goats the households have before urban expansion were decreased after urban expansion. Similarly, the financial capital or annual quintal production of the crop after urban expansion decreases than before the urban expansion (Ahlam,2017).

In addition, urban expansion affects the economic security of rural communities because of development-induced development (Termini ski, 2012)The displaced people lack resources such as land and water. This may lead to unemployment. So, urbanization affects communities negatively by occupying their productive land, reducing the amount of production and forcing the number of family members to an urban centre in need of job opportunities(Firew,2018).

In contrast, urbanization improved the job opportunities of farmers surrounding rural. Empirically, households who get a job after urban expansion are 73.1% while before the urban expansion was30.3%.The surrounding rural-urban centers have access to employment

opportunities because of the development of micro and small enterprises.(Ahlam,2017, cited from Zenebe,2019).

Consequently, the positive implication of urban expansion leads to higher economic performance opportunities of underemployed and unemployed, better life because of better opportunity and better services and lifestyle. (Minuyelete,2004)

Regarding the consequence of urban expansion on in livelihood strategies of the farmers (Leulseged,2011) has classified into three livelihood strategies of displaced households because of urban expansion. The first is agricultural based livelihood strategies such as eucalyptus and crop production, livestock rearing, poultry and fattening. The second is industry sector related livelihood strategies such as Construction, Manufacturing, Local Brewer and Handcraft. In the construction sub-sector, the job opportunities are daily labor, masonry & carpentry, quarry extraction & cobblestone making and block production. In the manufacturing sub-sector, the job opportunities are metal & woodwork and employment. The third is the service sector which includes the job opportunities such as transport, trade, and House rent(Leulseged...etal,2011).

The manufacturing sector's contribution to Addis Ababa's GDP was 1.4 billion birrs in 2003 (13% of City's GDP). This is expected to have reached Birr 2.6 billion (11% of the city's GDP) in 2010 (AACPPPO,2017)

The service sector is both the largest contributor to the city's economy and the largest employer. It contributes to 76.4% of the city's GDP while industry's share makes up (almost all)the rest. This sector is dominated by three major sub-sectors: Transport and communication; Real estate, Renting and Business services; and Trade, Hotel and Restaurants. The service sector has also

been responsible for more than 50% of the growth in the estimated annual growth of the city's GDP. Although 75% of employment in the city is also generated in the service sector, a large proportion of the employed work in low skill and low paying jobs as shop sales persons, petty and 'gullit' traders, sales workers in small shops, domestic helpers or doorkeepers and restaurant service workers. The employment structure within the service sector does not leave much room for innovation. Most of the employed in the city are engaged in service-related and elementary lines of works. This does not indicate that the structure of the city's economy provides the basis for a larger proportion of the labor force to add value to the city's economy. (AACPPO,2017)

Although the unemployment level has gone down in recent years, almost a quarter of the economically active population cannot find a job. And of those employed, the majority (close to 66%) in the city is engaged in low skill and low paying jobs.(AACPPO,2017)

Even though the MSE Development Program has created large employment opportunities between 2004 and 2012 (more than 843,000 people), these numbers consider both temporary and permanent jobs. The program has contributed significantly to reducing the number of those living under the absolute poverty line. Nevertheless, many doubt its success in creating credible future development partners or future industrialists.(AACPPO,2017)

In addition, the urban expansion changes households occupation from mixed farming activities to animal husbandry after they were displaced. Though the landholding size of the farmers is decreased due to urban expansion land to land or land to money compensation helps them to build extra houses for rent and invest in other livelihood strategies such as oxen fattening, dairy cow, running petty trade and restaurant. (Zenebe,2019)

Concurrently, the expansion of residential houses, industry and investment, infrastructure, social services, recreational areas and commercial activities in Gelan town changed the socio-economic life of the rural community. The former agricultural economic life is changed from farming to renting land, fattening oxen, and giving local transport services using horses and to non/off-farm activities such as home-based business, delivery of labor forces, micro and small scale business enterprises. (Henok, 2014)

According to Asmera survey on participants of the households engaged in livestock rearing are 26%, crop production 97.6%, Forestry 2.4% and Cash Crop Production 16%. Households engaged in non-agricultural income activities before urban expansion are 31.74% in small business, 31.74% in Employment in the private sector, 17.46% in Daily labor force, working in someone house 11.11% and 7.93% in street vendors. Asmera (2018)

Regarding income, Agriculture contributes more than half (58%) of the total household income. A given household receives, on average, Birr 1503 per annum. from agriculture. The mean income contribution of the industry related livelihood strategies to total household income of the industry income of the sample households was estimated to be 19.57%. A given household receives, on average, Birr 4060 per annum from industry related livelihood strategies. The total household income share of service sector, on average, is 17%. A given household receives, on average, Birr 3483 per annum from service related livelihood strategies. (Leulseged...etal,2011)

The urban expansion also helps the rural community to do additional income-generating activities. The road networked the rural with the urban supports the rural households to sell their

milk products for urban dwellers. In addition, the establishment of factories surrounding the urban centre the rural farmers employed in the factories. (Zenebe,2019).

Similarly, the primary income source of the community before urban expansion mostly(79.9%) depends on jobs in the category of agricultural sector activities while 20.1% of household heads had been engaged under jobs of non-agricultural activities in Holeta town. Asmera (2018)

Households' engagement in agricultural incomes such as crop cultivation before urban expansion is reduced by 159 in participation after urban expansion. The number of household participants of non-agricultural incomes in the daily labor force before urban expansion is increased by 27 after urban expansion. The number of household participants of non-agricultural incomes working in someone house before urban expansion increased by 35, after expansion. In contrast, household participants of non-agricultural incomes of small businesses before expansion decreased by 14. Other household's income activities are changed to own business and government employment.(Asmera,2018)

The most appropriate mechanism for improving the economic security of displaced people is resettlement in areas similar to those abounded, to enhance their prospect of continuing with the accustomed economic model (Terminiski,2012).

In general urban expansion has changed the livelihood of farmers because their land has taken for different projects. Therefore, the farmers were engaged in nonfarm activities such as in manufacturing , construction and service sector industries. Home based business and delivery of labor force are also other income sources for women and youth farmers.

2.12.3 The environmental consequences of Addis Ababa city expansion

Solid and liquid waste generation in Addis Ababa city is directly related with population growth, industrial expansion and economic status of its residents. The daily per capita solid waste generation of the city is estimated to be 0.4Kg. Of the total solid waste generated per day, about 80% is collected. The remaining 20% of the waste is disposed off on an open sites, drainage channels, rivers, valleys, and on the streets. Even the collected solid waste is dumped in open dumping site with no daily cover with soil, leachate containment or treatment, rainwater drain-off, odor or vector control, and fence. The Repi open dumping site of the city is already full and surrounded by residential houses and institutions.(Leulseged, et al.2017)

In addition to the solid waste, liquid waste is important source of pollution in Addis Ababa city. Only 7.2% of the liquid waste is disposed in appropriate way and the remaining 92.8% is disposed inappropriately in to rivers and rainwater channels (WSA, 2010). Excluding the recently constructed condominiums and real estates, the number of sewerage line customers is estimated to be only 4000 households. Furthermore, industrial wastes are important source of river water pollution. According to Gebre and Rooijen (2009) among 2000 registered industries in Addis Ababa, most of them were located along riverbanks. About 90% of these industries lack on-site treatment facilities for some degree, and subsequently discharge any effluents into adjacent streams.(Leulseged,et al.2017)

Urbanization also increased pollution. One of the various forms of urban pollution is the suburban sprawl along the main road and rail routes, the loss of open space for recreation and the

despoliation of the surrounding countryside. The growth of town gives rise to the problem of living space for a growing population. (Harvey, 1996)

2.13. The expansion of infrastructures in Addis Ababa city.

In this section, the expansion of school , health, housing and road facilities in Addis Ababa were empirically reviewed .

2.13.1 The expansion of school facilities in Addis Ababa city

In Addis Ababa, educational services were being provided by 1000 kindergartens, 767 primary, 188 secondary's, and 85 preparatory schools as well as by 380 colleges & TVETs and five higher educational institutions in 2012. The majority of the schools in the city (76% of the KGs, 61% of the primary, 46% of the secondary, 51% of the Preparatory, 85% of the TVET and 91% of the Higher Institutions) belonged to the private sector. This is due to government policy to encourage the involvement of the private sector in the provision of education services. A total of 755,928 students were enrolled, including those in KGs (118,840), primary (484,517), secondary (109,731) and preparatory (42,840) schools in 2012.(AACPPO,2017).

There is generally a more or less uniform distribution of schools as calculated by the school population ratio at the sub-city level. Lideta and Addis Ketema are the exceptions. When disaggregated by grade level, the distribution appears to be uneven especially in the case of secondary schools for which the ratios vary from the highest in Arada Sub-city (1:12,091) to the lowest in Lideta Sub-City (1:64,488). (AACPPO,2017)

2.13.2 The expansion of health facilities in Addis Ababa city.

According to the world health organization definition, health care facilities are hospitals, primary healthcare centers, isolation camps, burn patient units, feeding centers and others.

Health facilities in Addis Ababa were 48 hospitals of different levels in 2013 of which, 36 were privately owned. Out of the 48 hospitals, 5 (all of which are government-owned) were Specialized Hospitals (Black Lion, Torhailoch, St. Paulos, Amanuel, and St. Petros Hospital), whereas the remaining 43 (which include all of the 36 privately owned hospitals) were General Hospitals. The seven General Hospitals that belong to the government are Ras Desta, Yekatit 12, Ghandi Memorial, Zewditu, Balcha, Police and Tirunesh Beijing. Even though these hospitals provide city-level service, the concentration of most of these hospitals in and around the centre makes them far from some parts (esp. expansion area settlements) (AACPPO, 2017)

In addition to the hospitals, there were 96 government health centers (only 70 were functional, while the remaining 28 were under construction). There were also a total of 676 privately owned clinics of different levels: higher level (138), medium level (259), lower level (159) and special clinics (90), and dental clinics (29). In addition, 293 pharmacies and 235 drug vendors were providing service (AACAHB, 2012). The majority of the general hospitals and almost all of the lower level health institutions (clinics, pharmacies and drug vendors) belong to the private sector and this has created more access to health services at a neighborhood level, even though affordability is always an issue. (AACPPO, 2017)

Regarding health centers, the population–health centre ratio computed at the sub-city level indicates that the distribution of the health centers across sub-cities is more or less uniform

except for Kolfe Keranyo Sub-City which has a lower ratio (1: 55,685). On average, a health centre in the city was providing service for close to 35,000 population, which is higher than the standard adopted by the Health Bureau of Addis Ababa City Government (1:40,000). (AACPPO,2017)

In the case of Bole Bulbula and Makkanisa access to clinics and other health institutions improved. Among the sample household respondents,67% of them have accessed the clinic and other health institutions. (Feyera,2005)

2.13.3 The expansion of housing in Addis Ababa city.

In developing countries, about a third of urban inhabitants live in impoverished slums and squatter settlements (UN-Habitat, 2012). In the 2007 census, the housing stock in Addis Ababa was found to be 628,986 units. Out of this stock, more than 75% is made of mud and wood and half of them are more than 20years old. In terms of services, 98% get tapped water but only 32% of houses have private connections; 15% have no toilets, while 62% have shared toilets. More than 80% have no bathing facility, and 20% have no kitchen.(CSA,2007)

To address poverty and the lack of affordable housing nationwide, the federal government initiated a large-scale public housing program, called the Integrated Housing Development Programme (IHDP), in 2005. Unlike earlier efforts to incentivize private development of low income housing, IHDP is a public effort using money from either the federal treasury or borrowed by the government from the state bank. The initial goals of this housing program were to construct 400,000 units countrywide, create 200,000 construction jobs (thus decreasing

unemployment rates), instigate 10,000 micro-enterprises, and enhance the construction industry with the development of skilled labors and material suppliers(Larsen, et al. 2019).

Out of the countrywide goal, approximately 175,000 units in multistory condominiums have been completed in over 100 sites throughout Addis Ababa. An additional 132,000 housing units are currently under construction. The program has produced 370,000 jobs, thus surpassing its original employment goal of 200,000 . (Larsen, et al.2019)

One of the positive changes of the housing program has been the opportunity for hundreds of thousands of residents to own their own home. Unlike many social welfare programs, this effort addresses short-term housing needs for low and middle-income families while building long-term equity. Another positive change has been the use of ‘modern’ private kitchens. This has meant shifting from cooking with wood or charcoal toward electricity. This has reduced human scavenging in forested areas and improved indoor air quality(Larsen, et al.2019).

In contrast, some changes from the public housing program have been negative. Many of the new multistory condominium developments are located far from the central business district and lack nearby employment centers. In a survey of 323 households living in the new condominium housing, 57% reported that they could not generate income in their new settlement area. Eighty-two percent of respondents identified the loss of social networks as a result of relocation . These outlying locations of the condominiums impose significant transportation costs and add lengthy commuting times to many residents’ daily schedules. Additionally, rising construction costs over the program’s duration have meant some of the city’s poorest residents can no longer afford units(Larsen,...et al 2019).

2.13.4. The expansion of road infrastructure in Addis Ababa city.

The construction of the first roads in Addis Ababa dates back to the foundation of the city in November 1886 by Emperor Menilik II and Etegie Taitu. The first roads served to link Sefers (villages within bigger settlements) by non-motorized modes of transport. The construction of modern roads was intensified during the beginning of the reign of Emperor Haile Selassie.

The construction of roads during that period was carried out by the Public Works Department of the Municipality of Addis Ababa. The road construction had further been strengthened during and after the brief Italian occupation.(AACPPO,2017)

The total length of roads in the city before 1983 was 1,503Km, while the share of asphalted roads was below 20%. Following the establishment of the Addis Ababa City Road Authority(AACRA) in 1998, large scale road construction had commenced. The total length of roads in the city almost doubled (to 3,731km) between 1992 and 2012, and road density reached 12.9%.Moreover, the provision of public transport and other basic services were very limited to some parts of the core area. The lack of adequate standard roads and other infrastructures because of unplanned settlements in these areas made the services provided poor. (AACPPO,2017)

The city of Addis Ababa had provided public transport with only 10 busses in 1943. Kurukur/ scooter and horse-drawn carts were the main alternative means of transport. In 1974, small taxis (5 seat automobiles)and Anbessa Bus (then with 163 busses) were providing public transport service in the city. In1986, minibuses (and Weyiyit) taxis were introduced in a bid to fill the big gap then observed in the provision of public transport. In more recent periods, the services of midi-buses and even maxi-buses (which are normally used in inter-city transport) are being required to fill the supply gap during peak hours. (AACPPO,2017)

Today, the Anbessa Bus Enterprise, which has a fleet of 733 busses that operate in 112 different routes in the city, as well as the numerous small taxis, minibuses and midi buses ('Higer Buses') can only cover about 46% of the total travel demand. Despite the increase in the number and quality of roads and public transport vehicles in recent years, the transport problem in the city, as well as its environs has not yet been alleviated. There are several reasons for this but the most important one is the lack of integration between land use and transport planning, while limited attention to pedestrian transport, delays in the installation of mass transit, etc all have contributed to the problem. (AACPPO,2017)

The modal share of private car in Addis Ababa is 5%, as the number of private cars reached 40,344 in 2011 (CSA, 2011). The car-people ratio is estimated to be 17:1000 now as there are a total of 200,000 cars in the city. (AACPPO,2017)

Total travel demand in the city was expected to reach 3.2 million person trips per day in the year 2010 (CSA, 2005). The modal share of public transport was anticipated to reach only 40% (bus 16% and taxis 24%) in 2010. With the assumption that the city's population will only reach 3.7 million by 2020, the same study had projected travel demand to rise to 5.6 million in the same year. The plan estimates a population of the city will reach 4.4 million in 2025 and 6.4 million in 2040. With this in mind, it is estimated that travel demand will reach 6.6 million in the next 10 years, and will increase to 9.7 million in 2040. (AACPPO,2017)

At present, there are 8,500 minibus taxis, 442 midi buses, 1006 Anbessa city buses and other 6,000 support vehicles that provide public transport service in the city and its immediate teen. Fleet availability has declined from 85% ten years ago to 64%. Due to various reasons, only 650 of Anbessa busses are presently working in 119 different routes. The maximum passenger carrying capacity of the Anbessa city bus ranges from 100 to 150 persons. Recent data from

Addis Ababa City Road Authority (AACRA) and Transport Bureau shows that there are about 488,028 passengers per day travel by Anbessa city bus, and a slightly smaller amount (479,182 passengers per day) by minibus taxis. Nonetheless, the overall public transport system in Addis Ababa is critically inadequate to provide service for the existing travel demand.(AACPPO,2017)

The multi-dimensional effect of lack of integration between urban land use and urban transport has given rise to unnecessary trips, congestion, costly fuel consumption, pollution and low productivity. This is also partly due to poor transport planning and implementation.(AACPPO,2017)

Constraints in road transport infrastructure, lack of efficient public transport system and increase in private vehicle ownership have all contributed to high traffic congestion. In addition, the city is facing problems of road traffic accidents and air pollution. The growing usage of motorized private vehicles coupled with the increasing congestion levels led to increased fuel consumption, thereby making the transport system expensive and economically unsustainable.(AACPPO,2017)

Centers, market areas, working places are not well connected with residential areas by public transport. People are obliged to travel to city centers and recreation areas which give rise to unnecessary trips. These places are almost always congested by private cars and commercial vehicles during the day. Hence, market and business areas are not suitable areas for walking.(AACPPO,2017)

The total roads of the city (of 7m width and above) are 3,731km. Out of these 1,807km (48.4%) is asphalted, 1,777km (47.63%) is gravel and 147km (4%) is cobblestone. There are currently around 214 roads of arterial level (PAS and SAS) that structure the city. The total length of the major roads constructed in the past ten years is about 468.63km. 38 major roads

were proposed by the previous city development plan to be built in the planning period. Out of these, 42% have already been implemented (constructed). The rest are either under construction, under design or in the process of entering into contracts.(AACPPO,2017)

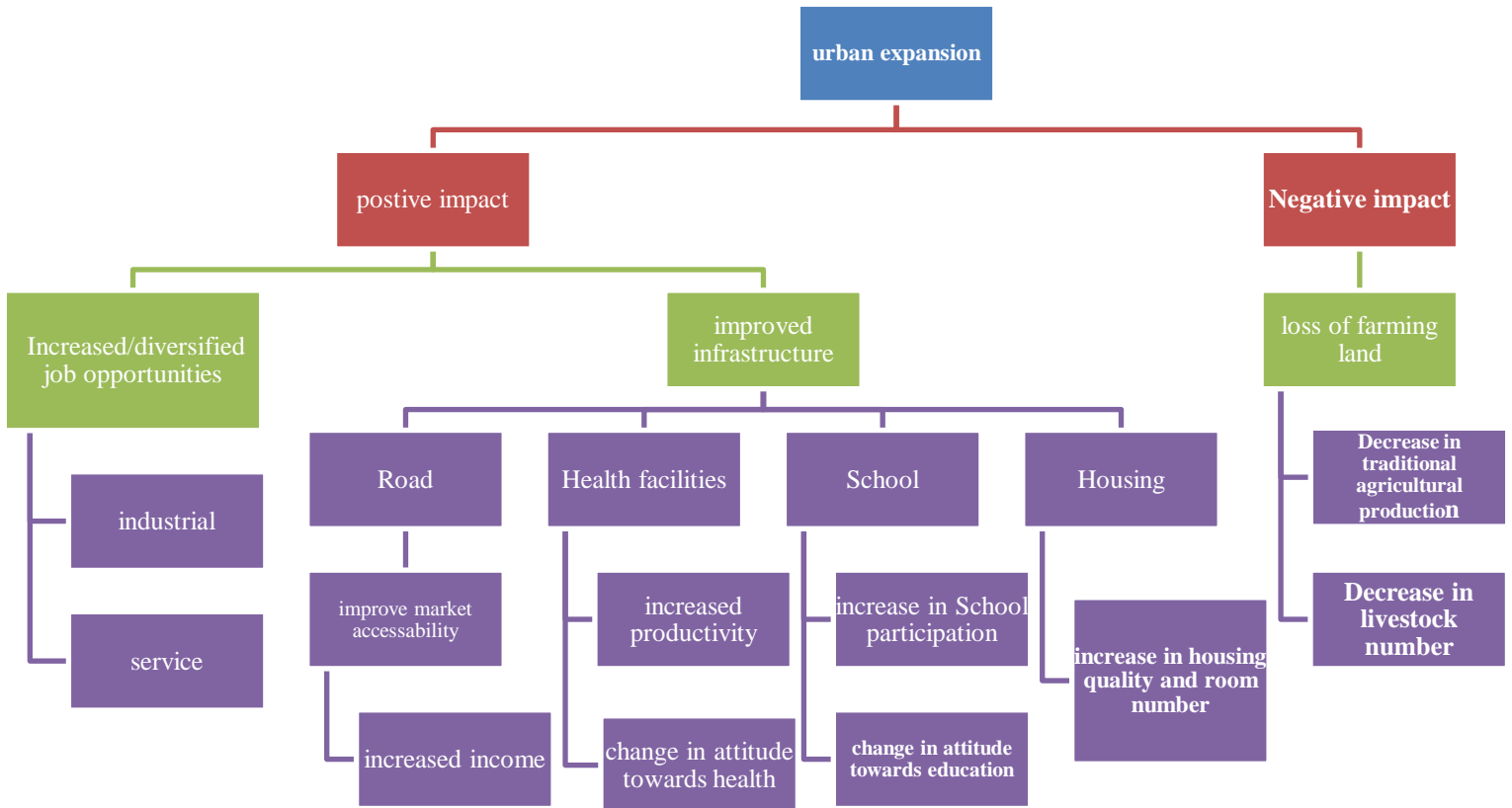
2.14 Attitudes , perception and satisfaction of rural community towards Addis Ababa city expansion.

Abdisa(2005) survey on the community awareness on the residence expansion around Addis Ababa finds out the majority (60%) of them were not aware of the urban expansion program relatively considerable minority 40% of them aware of the urban expansion program.

In addition, according to (Gadisa,2020) the impacts of urban expansion on livelihoods of the surrounding rural society: the case of Tefki Town, Oromia special zone surrounding Finfinne, some farmers(58.49%) were strongly discouraged with urban expansion on farmland while 41.5% of farmers were not discouraged on urban expansion on farmland. Generally, the attitude of the respondents towards urban expansion on the surrounding rural communities were brought negative effects on the surrounding rural farmers.

Moreover, the farmers households satisfaction on the amount of compensation for the respective size of land they lost for urban expansion were dissatisfied because the time consideration on compensation was not respected as well as the amount of compensation was very few consequently the households are facing social , economic, cultural and the livelihood consistency problem because the farmers are going to other area to get farmland by rent or by purchasing.(Gadisa,2020)

2.15 Conceptual framework of urban expansion Fig 2.1 conceptual framework



Source (own framework)

The above conceptual frame work has developed based on the conceptual definitions of the dependent variables and independent variables. Based on this study the independent variable is urban expansion and the dependent variables are job opportunities, infrastructure, land resource, livestock resources, social relationships. The independent variable urban expansion has both positive and negative impacts. According to the above review literature urban expansion has positive impact or consequence on the job opportunity and infrastructure while the urban expansion consequence on

land and livestock resources is negative. Accordingly, the following concepts has been defined and their interdependency on the independent variable has been described as follows.

Urban expansion or Urban sprawl: is defined as the spreading of the city and its suburbs over rural land at the fringe of an urban area. The urban expansion includes both positive and negative effects. A large urban area offers a wide area of job choice, shopping outlets and educational, medical and recreational opportunities (Harvey, 1996). In addition, urban expansion leads to higher economic performance opportunities for the underemployed and unemployed, better life because of better opportunity and better services and lifestyles. (Minuyelete,2004).urban expansion decreased the number of livestock, land and financial capital (annual quintals produced) (Ahlam,2017)

Job opportunities:-Employment or job opportunities refer to the availability of farming alternative livelihood strategies. The farming community is highly characterized by farming activities as a predominant livelihood strategy. Nevertheless, as the extent of the urbanization process increases optimistically, new job opportunities also emerge.(Efa and Gutema,2017)

Urban expansion changed the job opportunities of the former agricultural economic life from farming to renting land, fattening oxen, and giving local transport services using horses and to non/off-farm activities such as home-based business, delivery of labor forces, micro and small scale business enterprises. (Henok, 2014)

Urban expansion changed the livelihood strategies of displaced households to industrial and Service sector-related job opportunities. The industrial job opportunities are construction, manufacturing, local brewer and handcraft. In the construction sub-sector, the job opportunities are daily labor, masonry & carpentry, quarry extraction & cobblestone making and block

production. In the manufacturing sub-sector, the job opportunities are metal & woodwork and employment. The service sector includes the job opportunities such as transport, trade, and House rent. (Leulseged...etal,2011). Similarly, urban expansion has a positive impact on services such as transportation, public and private services of health, education, banking, postal, telephone, wholesale and retail, sales of manufactured goods and professional service of lawyers. (G/Egziabher,1998, cited from Zenebe,2019).

Infrastructure:-Urban expansion positively changed the road, school, health and housing infrastructure. Regarding road, the total length of roads in Addis Ababa before 1983 was 1,503Km, while the share of asphalted roads was below 20%. Following the establishment of the Addis Ababa City Road Authority(AACRA) in 1998, large scale road construction had commenced. The total length of roads in the city almost doubled (to 3,731km) between 1992 and 2012, and road density reached 12.9%.(AACPPO,2017)

The number of schools in Turkey increased by 1426 in the last 19 years (Konuk...etal,2016) due to urbanization . In the case of Addis Ababa, educational services were being provided by 1000 kindergartens, 767 primary, 188 secondaries, and 85 preparatory schools as well as by 380 colleges & TVETs and five higher educational institutions in 2012.

The number of health facilities in Addis Ababa were 48 Hospitals, 96 government health centers (only 70 were functional, while the remaining 28 were under construction). There were also a total of 676 privately owned clinics of different levels: higher level (138), medium level (259), lower level (159) and special clinics (90), and dental clinics (29). In addition, 293 pharmacies and 235 drug vendors were providing service (AACPPO,2017).

The unfit demand and supply of housing in Addis Ababa forced the low-income households to be engaged in informal and squatter settlements around the fringe of the city. Others who are not able to afford the ever-increasing housing rent in the centers of the city are escaping to the peri-urban areas even beyond the boundary limit of the city administration. The concentration of such people including the new migrant population who temporarily stay in the fringe areas caused the expansion of both formal and informal settlements over the agricultural fields (Azeb, 2007 cited in Addisyihun,2019).

According to (Firew,2010) housing infrastructure of farmers households were changed by the number of rooms after an urban expansion that is an average of 1.51 rooms before urban expansion is ascending to 3.86 average rooms after urban expansion.

Land Resource: Land is a very critical resource for the livelihood of peri-urban households.(Eyaya, 2014 and Dejene, 2011 cited in Yeshewas,2015). Large numbers of the farmers lost their farmland that negatively affected their crop production, assets and livestock due to urban expansion.

According to Bhatta (2001), land dispossession of the community and the high extent of urbanization are positively and significantly related. This implies as the extent of urbanization is alarming, the majority of the community is more likely forced to be alienated from their land.(Efa and Gutema,2017) Urbanization in general and sprawl in particular, contribute to the loss of farmlands and open spaces (Efa and Gutema,2017).

Livestock Resource:- Urban expansion had directly or indirectly affected the production of livestock of rural communities which played multiple roles in creating wealth for farmers (Muluwork, 2014 cited in Yeshewas,2015). There are two significant reasons for the reduction of the number of households' livestock after they had been expropriated their farming land. On the

one hand, the loss of farmlands for animal fodder was directly related to loss or decrease several livestock assets at households level. Because of the reduction of private and public grazing land which had been evicted by the urban administration, peri-urban households were forced to reduce their livestock. whenever farmlands are taken away for urban expansion use, farmers are obliged to sell all or minimize the number of livestock assets.(Yeshewas,2015)

2.16. Summary of Review Literature

In the review literature section, I have been reviewed the urban expansion of African countries specifically urbanization of Ethiopia and the expansion of Addis Ababa were discussed. Moreover , the socio economic consequences of urban expansion specifically on education, health, housing, infrastructures development and job opportunities were reviewed from previous literatures. Finally the attitude and satisfaction of rural households on urban expansion were empirically reviewed.

Throughout those literature I have been reviewed, I have come up with gaps that helps me to start the research. Those gaps are the benefit and the challenges farmers households faced after urban expansion from job opportunities, education, infrastructure development, and health service .

CHAPTER THREE

3. Research Methodology

3.1. Introduction to Research Methodology

In this chapter, the researcher explain how the research was carried out which is called the research methodology. The researcher used two research design , the first is exploratory research while the second one is descriptive design. The research method to collect data were in depth interview, FGD, observation and survey methods. The source of data was both primary and secondary sources. The sampling method was from the total population using random sampling for the survey while purposive sampling was employed to select the key informants. The data analysis were using SPSS for quantitative data while the qualitative data were analyzed using interpretation of the interviewee response, interpretation of observations and responses from FGD participants. Finally, Description of the study area were also included in this chapter.

3 .2. Research Design

3.2.1. Exploratory Research Design.

I was used exploratory research design to better understand the problem of urban expansion on the farmers ,therefore I was implemented the exploratory research design to explored the change in the livelihood strategy of FHHs, the change in school participation, health condition of the FHHs and the rural community and the effects of urban expansion on the social service such as water, transport, electric city, road, telephone, and banking service. The research also explored the attitude and perception of FHHs on urban expansion. Finally, the exploratory research design explored the satisfaction of the FHHs on the urban expansion effects on socio-economic life.

3.2.1 Descriptive Research Design

I was employed descriptive research design in this research to describe what did urban expansion brings on the farmers socioeconomic life? Therefore the research employed the descriptive research design to describe the how urban expansion change the socio-economic situation of rural households after urban expansion. The researcher also described the demographic situation of the respondents, the impacts of urban expansion on the change in housing status, health status, educational status, job status of the FHHs. He also described the level of satisfaction on the urban expansion.

3.3. Source of Data

The source of data for this research was both primary and secondary sources. The primary data of the research was generated from own field data collection methods. The primary data were including both quantitative data and qualitative data. The secondary source of data was obtained from reports on job opportunities of micro and small scale enterprises and the cooperative work association of the woreda under study area.

3.4. Research Method

The researcher selected an in-depth interview data collection tool to get key informant data about the socio-economic change surrounding the urban expansion. Moreover the researcher selected focus group discussion to confirm the effects of urban expansion on farmers health, job opportunities and education. Finally, the researcher selected an observation method of data collection to collect environmental status and housing status. In addition, some of the job opportunities created for farmers community were observed.

The survey method was selected to describe numerically how urban expansion changes the job opportunities to non-farming activities, to describe how many farmers households negatively or positively affected by urban expansion especially in livestock and land resources, housing, health and education.

3.4.1 In-depth- interview

A total of twenty-two both key informants and non-key informants (sixteen from farmers households and six from concerned government officials) were deliberately selected. The in-depth interviews were conducted to answer the effects of urban expansion on the job opportunities, social services, infrastructures such as water, electric city and telephone services and health education and housing accessibility in the rural community specifically in households. An indepth interview was also used to identify the effects of urban expansion on the social relationships of rural households or communities after urban expansion. In addition, the researcher used an in-depth interview to express the attitude of farmers to urban expansion.

3.4.2 Focus Group Discussion

Three FGD (with eight members) were purposively organized for discussion at Chefe elementary school with students of grades 8 and 7 to discuss the impacts of urban expansion on their education, at health post of the woreda with urban health extension workers to discuss the impact of urban expansion on the health of households and environment, at woreda cooperative work association office with the farmers households who were organized and started their job to see about the impacts of urban expansion on job opportunities

Focus group discussions were conducted to discuss the effects of urban expansion on the health situation of the rural community or households after urban expansion. The focus group discussions were done with urban health extension. FGD was also done to discuss on and find out the impacts of urban expansion on job opportunities. The discussion was conducted with farmers households. FGD was done on the effects of urban expansion on schools. The FGD was conducted with farmers students.

3.4.3 Observation

The researcher was complete observer in the field to observe the changes in housing, environmental condition, infrastructure, land resources and job opportunities after urban expansion. The researcher also was observed the FHHs housing quality, environmental changes in the community, infrastructural development such as road, health institutions, Bank service and soon. In addition, the researcher has been used the observation method to observe the farmers land and job opportunities created for FHHs after urban expansion.

3.4.4 Survey Method

The researcher selected a survey method to assess the decline or improvement of socio-economic life of the farmer's households surrounding the urban expansion of the study area woreda 03. The researcher believe that survey method identified how many households agreed or disagreed on the impacts of urban expansion declined or improved the job opportunities, School access, infrastructure accessibility, housing improvement in size or quality, the satisfaction of farmers on access to social service and job opportunities and the attitude of farmers towards urban expansion. A close-ended questionnaire with multiple choice and Likert scale was employed.

3.5. Population

The research population of this study was the total number of farmers' households who were living in woreda 03. According to the woreda 03 administration of Lami Kura sub-city, the population of FHHs was two hundred forty six (246).

3.6. Sampling method

3.6.1. Probability sampling method

I was selected the probability sampling method to include every member of the total farmers households under study to give equal chance of being included in the sample selection.. Accordingly, I was giving equal chance the two hundred forty six farmers households to include them in the sample studied. Random sampling method was used to select the sample farmers households from the total population of farmers households under the study area.

To calculate enough sample size from the total household heads under the study, there is a standard statistical approach equation.

For this case, equation of Yamane (1967) was in use. So, $n = \left(\frac{N}{1 + Ne^2} \right)$

.....Equation of Yemane Where n=Sample size N=

Total number of HHs e =Estimated precision of data

Total household in sampled kebeles/ketena=246, Level of error/ confidence =0.05 / 95%

According to him, sampled size (n) = $\frac{N}{1 + Ne^2}$

$$n = \frac{246}{1 + 246(0.05)^2}$$

$$n=1000/1+246*0.0025$$

$$n=246/1+1*2.5$$

$$n=246/1+2.5$$

$$n=246/3.5$$

$$n=151$$

N= population

e=marginal error

Using this scientific determination, 151 household heads were selected for the questionnaire survey.

3.6.2.Non-probability sampling method

I was used non- probability sampling method to select the sample farmers households without giving the total farmers under studied an equal chance of being selected. The non probability sampling technique, purposive sampling method was selected samples based on my judgment and knowledge and to gather qualitative responses. Accordingly, I was employed, purposive sampling method to select the FHHs who were rehabilitated with job opportunities and non-returnable revolving funds as well as credit services.

To collect qualitative data using FGD the researcher has been used purposive sampling to select four(8) FHHs who organized and started jobs under cooperative work associated with the help of the woreda officers to discuss on the impact of urban expansion on job opportunities. The

purposive sampling method was also helpful to select eight (8) health officers working on urban health extension to discuss the health situation FHHs before and after urban expansion. Eight(8) students were also selected purposively to discuss on the impact of urban expansion on education

To collect qualitative data using in-depth interview I was employed purposive sampling method to select three(6) FHHs who engaged in grocery and restaurant service to get information on impacts of urban expansion on service sector . The research was also applied purposive sampling to select 4 (two) FHHs who were engaged in construction and trade jobs to get information on impacts of urban expansion on construction sector. The research was also applied purposive sampling to select (3) FHHs who engaged in urban agriculture jobs. Eight(9) interviewee from the woreda officer were selected purposively to make an interview on the impact of urban expansion on waste management, education, and urban agriculture and cooperative work..

3.7.Data processing, analysis & interpretation.

The data was encoded in the SPSS, application then it was analyzed using descriptive statistics. The tools used to present the data were table, pie and bar chart. Frequency of the farmer's households were used to show the decline or improvement of their socio-economic life after urban expansion. The presented data were interpreted by comparing the difference between frequency of the socio economic variables.

The demographic variables like sex, age ,marital status, and employment status were interpreted by comparing the frequency of each variable category responded to the questionnaire

The job opportunities were interpreted by using the frequency of farmers households who changed their job to non-farming activities or urban job activities such as service and industry sectors jobs. The job opportunities after and before urban expansion were interpreted using data collected from key informant interviews.

The school participation and attendance after urban expansion were also interpreted using a frequency of farmers households participation from kindergarten to university school level. Similarly, the farmer's households attendance of schools were interpreted using the frequency of farmers households using farmers who were attending, dropping and illiterate school. In addition Key informant interviews were used to interpret the impact of urban expansion on education.

The improvement or the decline of infrastructure were interpreted using the data collected from key informant interviews and focus group discussions before and after urban expansion or between a specific period of time. Similarly the impact of urban expansion on the infrastructure was interpreted using frequency of access to electricity, water and telephone at the household level.

The impact of urban expansion on the housing of the farmer's households was also interpreted using the frequency of the housing quality and size. The housing quality was also interpreted using words like mud house, hut house and bricks house before and after urban expansion. The internal and external quality of the housing was also interpreted using the changes in furniture's of the farmer's households.

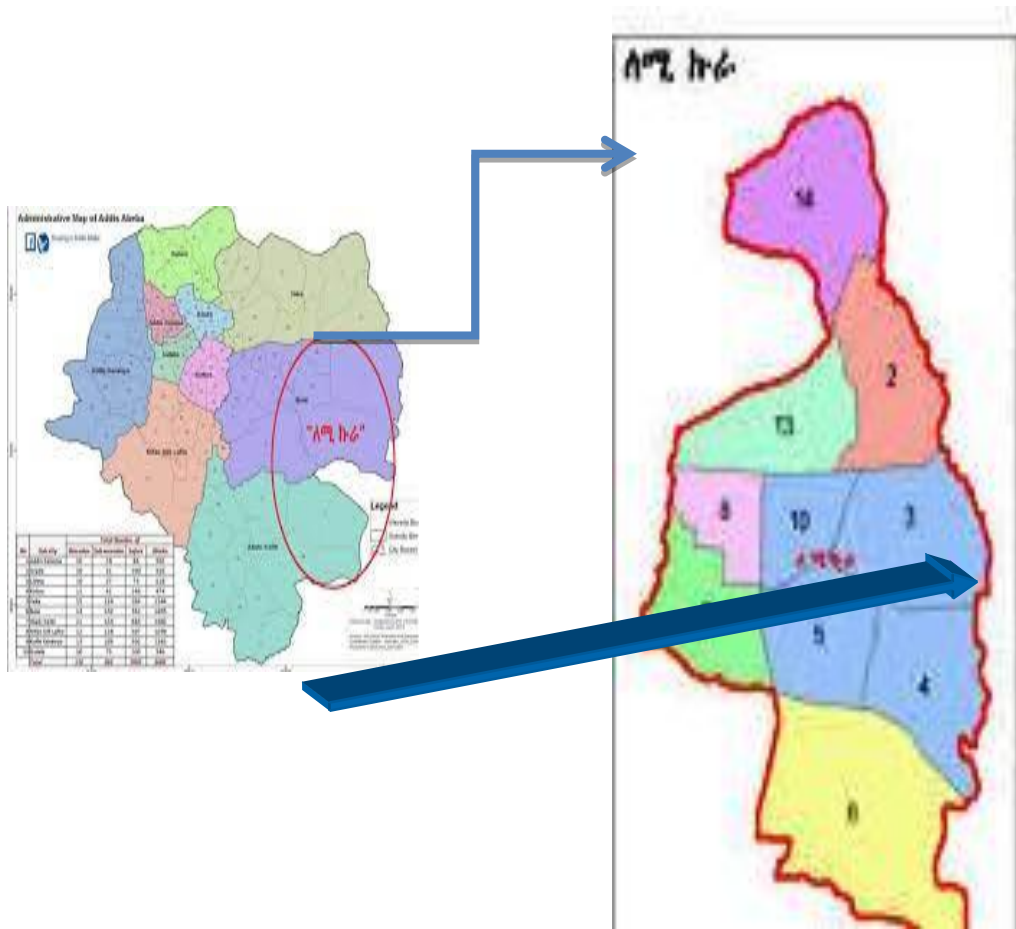
The farmer's households and environmental health of the study area were interpreted using the frequency of the spread of communicable diseases such as malaria, typhoid or non-

communicable disease depression and others after urban expansion at household level . The environmental health of the study area was interpreted using frequency of farmers households response to air pollution, crowded living, water contamination and noise after urban expansion. The farmers household health were interpreted using access to health facilities after urban expansion. In addition, the impact of urban expansion on farmers households health was also interpreted using disease caused by overcrowded living such as Tuberculosis and migration of people from urban to rural like HIV/AIDs

The farmer's households resource were interpreted using two categories: the livestock and land resources. The frequency of farmers households whose livestock's like cows, ox and sheep declined after urban expansion were interpreted etc. The farmers land after urban expansion were interpreted by using the frequency of farming land, grazing land and forest land.

The farmer's satisfaction level were interpreted using impacts of urban expansion on the social services and job opportunities. Access to water, health, education and job opportunities after urban expansion were interpreted using a frequency table. The attitude of the farmer's households towards job opportunity, infrastructure, social service after urban expansion were interpreted using a frequency table. The opinions of farmers towards urban expansion were also interpreted using comments, feelings and so on.

3.8. Description of the study area:



Source([http://www.google.com/11 sub-cities of Addis Ababa](http://www.google.com/11-sub-cities-of-Addis-Ababa)) .

Short information about the study area.(Woreda 03)

Land size:-896.4hec. Block size:-62 Household size :-6919,population size:10215

The study area was woreda 03 Lami Kura sub-city. "Woreda 03 is located in Lami Kura sub-city in Addis Ababa. The woreda was previously organized under Bole sub-city woreda 10. Then it is separated from woreda 10 and organized under woreda 15. Again it is separated from woreda 15 and reorganized as woreda 03. Now the woreda is subdivided into six(6) communities or 'ketena' namely Ayat zone, Shobe, Sebahulet, Chefe, Ayat condominium, and Geldu. Among

those communities, three of them were known as farming communities where many farmer's households are found in the communities. Those communities were called Jeldu, Chefe, and Shobe ketene."Key informant from woreda communication officer .

According to key informant data, the woreda was reclassified after 2013. The urban expansion of Addis Ababa city largely expanded to the rural community of the woreda specifically to Shobe, Chefe, and Jeldu area. The expansion of the city is mainly due to large real estates like gift real estate, Addis mender real estate, and Ayat real estate. The government housing development project with the early 20/80 program and with the recently 40/60 program is also one cause for expansion of the city. The migration of the urban community to the woreda also another cause of the urban expansion. The woreda residents are people who were migrated from the urban center of Addis Ababa and different towns.

Therefore, I was interested to select the woreda 03 of the sub-city for my title urban expansion and the changing socio economic life of the surrounding rural community as study area.

Following the expansion of the city, asphalt road was constructed to those condominiums and real estate initially from 'Ayat' square to '49 Chefe' then to 'Arabsa' condominium site.

The Health services were very few there was one private Pharmacy in the condominium site and near to the farming community of Jeldu in 2014 and one clinic. One government health post is still giving service at study area woreda 3 since 2012. Private clinics are now changed to 9 medium level clinics and there 10 pharmacies are on giving services. (From health office of the woreda)

There was only one government primary school in 2012. Nowadays two private primary schools are added and 5 private kindergartens are giving on service for the area under study. (from woreda education office)

Chapter Four

4. Data presentation and Analysis

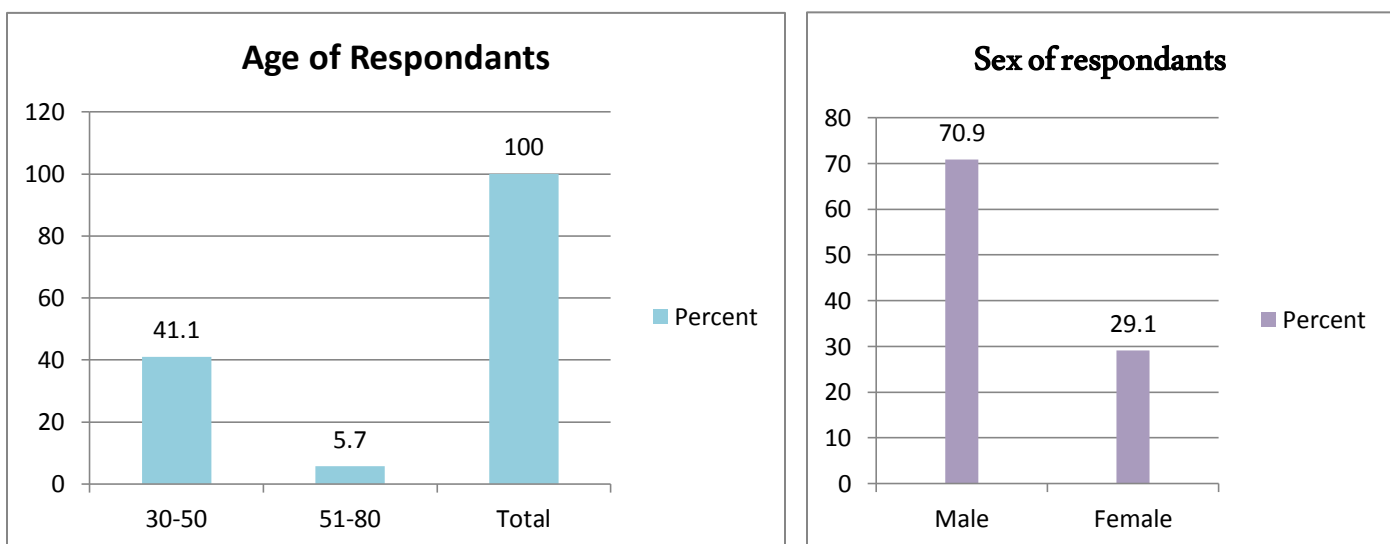
4.1 Introduction

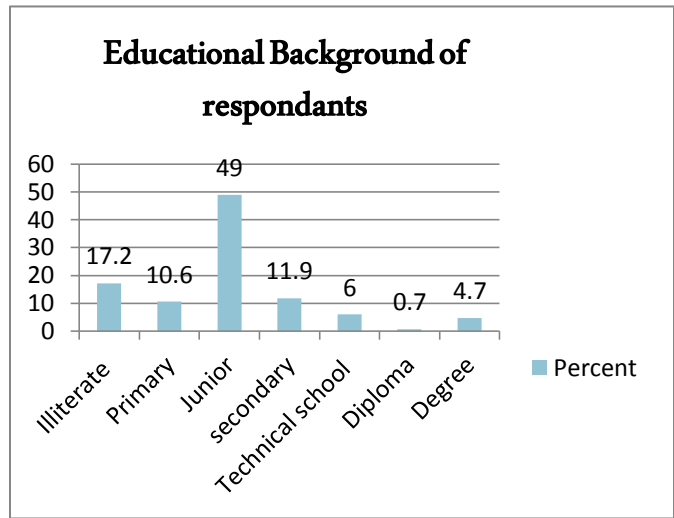
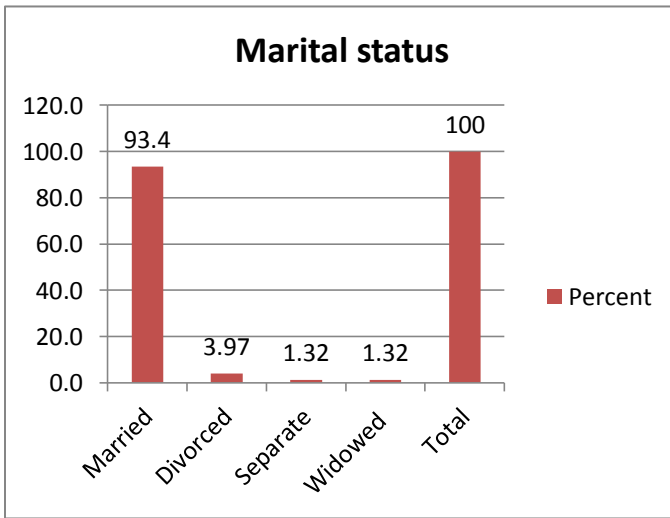
. This chapter included the impacts of urban expansion on job opportunities and related issues of the farmer communities and the effects of urban expansion on social service and relationships among the farmer's households. The environmental and household health challenges after urban expansion have been also presented in the chapter.

The decline of resources of farmer's households have also been discussed quantitatively as well as qualitatively discussed. Finally, the attitude and perception of FHHs on urban expansion, additionally the satisfaction with them have also been discussed and presented in the chapter.

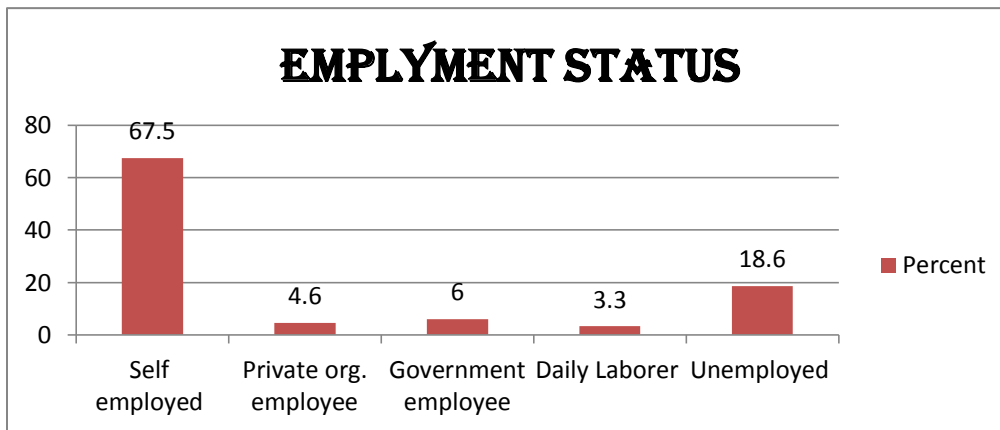
4.2 Socio-Demographic profile of the respondents

Fig.4.1 Demographic data of the respondent





The number of male respondents was more than the female respondents. The Majority of the respondents were youth. even though the respondents include all types of marital status the majority of them were married and single. About fifty percent of the respondent's educational background was junior school completed. one-fourth of the respondent's household size was from two to eight. Three fourth of the household size of the respondents were from nine to fifty. The majority of the survey respondent's employment status was self-employed.



Majority of the farmers households were self employed while some of them were employed in private organization and in government office. Few of them are daily laborer .Others are unemployed

Data presentation and analysis of the research have presented by both quantitative and qualitative data. The respondents name I have used in this section were pseudo names. The source of the data were both secondary and primary sources. The respondents responses were italicized.

4.3. Impacts of urban expansion on farmer's job opportunities.

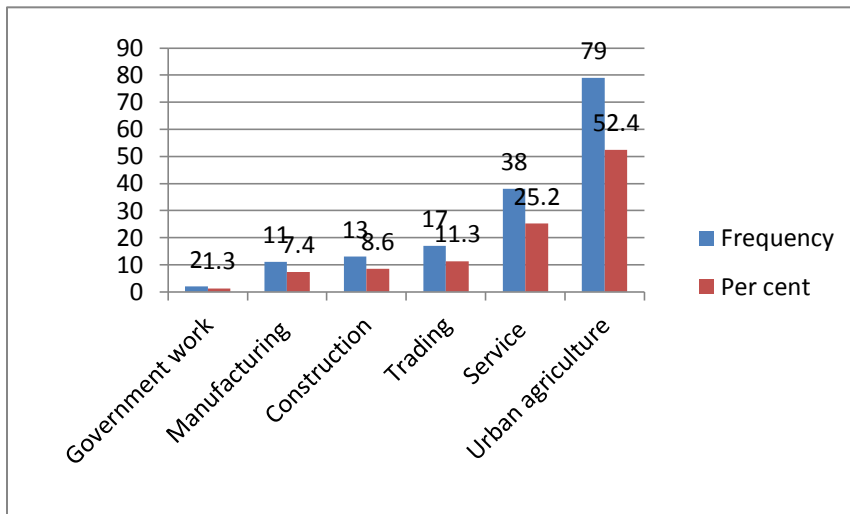
According to my key informant,'W/ro', Abebech Neguse,the cooperative work association case team leader of woreda 03 Lami Kura sub-city *"the declaration of cooperative work association 985/09 the number of associations should be more than 50(fifty). But the government allowed to be grouped with only ten (10) household members whose age is more than 18(eighteen). The government also provided rehabilitating funds and an interest-free credit services for the farmers."*

According to 2019 and 2020 report of the woreda 03 cooperative work association farmers were organized under urban agriculture, manufacturing, construction and service. The number of farmers organized under all sectors was four hundred forty-four. Among the four hundred forty-four more than half of them were organized under construction work. This indicated that the construction sector have wide job opportunity in the study area than other sectors.

My key informant Ato Huluqa from the farmer's community told me that *"some farmers households have self-employed in restaurant and groceries by using the rehabilitating and the credit fund opportunities the government provided to them. They also created job opportunities*

in the service sector. Others youths have self-employed in soil digging and cleaning by renting machinery. Few of them are employed in bricks production." This showed us the farmers job culture was changed from agriculture to self created job opportunities and being employed in private or public sectors.

Fig. 4.2 Job opportunities of FHH



source(field data)

In contrast, he was said that "before urban expansion, the males were engaged in farming activities while the females were doing or making pottery, but nowadays after urban expansion farming activities declined because the farming land of the farmers was taken by the real estate developers at cheap price and the women poetry works are discontinued because they can't access to the soil needed to do the poetry after urban expansion."

According to (Leulseged....et al,2011) peri-urban households in Addis Ababa had different adaptive and /or coping livelihood strategies. These were broadly categorized into agriculture, industry and service sector related livelihood strategies. Similarly urban expansion surrounding

rural community of the study area has changed the farmers job opportunities to urban agriculture. Quarter or one-fourth of the farmer's households were changed their job opportunities to service sector jobs after urban expansion. Less than one fourth of the farmers households were doing trading, construction, manufacturing and government work after urban expansion. About half of the farmers households were doing farming jobs on their small plots. The income source of farmers household from service sector was better than that of industry sector at the study area. In contrast (Leulseged....et al,2011) the income source of farmers at peri-urban area of Addis Ababa have gained better income from industry sector than service sectors. The income source from agriculture for farmers at peri- urban area of Addis Ababa was the largest source similarly urban agriculture is the main source of income at the study area.

4.3.1FHHs Job opportunities created by the woreda cooperative association

Table 4.1. Job opportunities in cooperative work association

| Job opportunities | Frequency | Percent |
|--------------------------|-----------|---------|
| Construction | 14 | 41.2 |
| Service | 8 | 23.5 |
| Trade | 7 | 20.6 |
| Urban Agriculture | 4 | 11.8 |
| Manufacturing | 1 | 2.9 |
| Total | 34 | 100 |

Source: woreda 03 cooperative work association office 2019 &2020 report.

According to the office of cooperative work association in woreda 03 of Lami Kura sub-city, farmers were organized in construction, manufacturing, service, trade and urban agriculture job. Among those organized majority of the farmers were organized under the construction sector. This showed us the urban expansion positively affected the job opportunities because the farmers interest to be organized in construction sector was more than other sectors which

indicated the expansion of urban construction sector at the study area. Trade and service sector directly related to the expansion of construction sector because the demand of food supply at the area was increased. Urban agriculture was the newly emerging and expanding job to encourage the farmers who lost their farming land due to urban expansion. It is highly supported by government with money credit provision and rehabilitating fund to the farmers in order to produce or manufacture agricultural products like dairy milk, oxen fattening and vegetable cultivation on their own small plot of land.

4.3.2. Farmers who organized under micro and small scale Enterprise in 2021 third-quarter report

Table 4.2 Job opportunities in micro and small scale enterprise

| No. | Type of the enterprise | Job Type | Farmers organized | Farmers organized in % |
|-----|------------------------|---------------------------------------|-------------------|------------------------|
| 1 | Service | Soil digging and dumping | 6 | |
| | | Daily laborer | 10 | 33.8 |
| | | Soil cleaning and dumping | 5 | |
| 2 | Urban agriculture | Plant nursery or seedling propagation | 10 | 13.3 |
| 3 | Construction | - | 0 | 0 |
| 4 | Manufacturing | - | 0 | 0 |
| 5 | Trade | - | 0 | 0 |

Source: woreda 03 micro and small scale Enterprise office.

Farmers have access to employment opportunities because of the development of micro and small enterprises (Alham,2017).Likely, regarding micro and small scale enterprise, my key informant said that most farmers choice were the service and urban agriculture sector jobs because the jobs are easy to understand, and it does not need higher-level training. The other

such as construction job need higher skill and training, therefore, they did not a choice it. Additional, the construction sector is declined due to the expensiveness of construction materials. Therefore, I concluded that urban expansion was failed in changing farmers economy to construction and manufacturing sectors of micro and small scale enterprises , while it was enabled farmers to be engaged in urban agriculture jobs and service sector jobs with few effort. The engagement of farmers in service sector like daily laborer and soil digging ,cleaning and dumping was obviously due to the expansion of housing construction and the migration of people to the surrounding farming community to look for renting house from the urban center. Plant nursery and seedling propagation jobs also indicated the need availability of the urban dwellers surrounding the rural community to buy them therefore the farmers were interested in providing plants.

Urban Agriculture

Table 4.3 Job opportunity in urban agriculture

| Urban Agriculture | Frequency | Percent |
|-------------------------------------|-----------|---------|
| Dairy farm | 8 | 5.3 |
| Poultry | 5 | 3.3 |
| Oxen fattening | 7 | 4.6 |
| Crop production | 33 | 22 |
| Vegetable cultivation | 6 | 4 |
| Plant nursery/ seedling propagation | 20 | 13.2 |

Source(field data)

Most of the farmer's households were engaged in crop production and plant nursery. This indicated that the market accessibility of the farmers who engaged in crop production was better than others. As my Informant Ato Tilahun Gezawu said that *"urban expansion changed my*

household living strategy from farming to urban agriculture known as the milk production. According to his saying his father was farmer previously after urban expansion, he was a security worker at the cooperative housing then he has starting to do milk production with money funded from governments to reestablish farmers who evicted from their farming land and with the credit he funded from revolving fund from government credit and saving. We also got training on how to manage the money funded from government. The milk production livelihood strategies opened one job opportunity for one person. The job provides milk contract services for urban dwellers. The market accessibility is low, but it is a better livelihood strategy than before the urban expansion." The urban expansion at the study area was changed the farmers attitude towards urban agriculture job through training provision even though it is failed in providing market for the farmers product. Private sectors expansion through housing construction were also provide job vacancy of security.

As my informant from farmers of the study area who was an adult man and completed junior school said that *"formerly I was a construction worker now days the construction work is declined therefore I am shifting to an urban agriculture job on green plant development especially indigenous plant development. Even though the current job has less income than the former construction, the job is easy to do. The urban expansion has given me the place or land for the production of green plants as well as the place to sell the production of green plants. From my previous job (construction) I gained skills and knowledge of construction."*(From 'shobe' village, at his worksite, in June 10/2021). Even though urban expansion took farmers land for different projects specifically for housing projects (Ahlam,2017) the expansion provided land for production and market or place to sell for farmers. Urban expansion also introduced skills and Knowledge which farmers previously (before urban expansion) did not have.

As my informant is a young man who was completed high school. He was said that *"I was unemployed, but currently ,I working in green development with the support of the government. I was taking job training and technological support from the government."*(From 'shobe'village, at his work site,in June 10/2021). Beyond urban expansion was providing job opportunity to the farmers it also provided technological support for them

Image1. Plant nursery/seedling propagation



Image 2. Animal husbandry



Source :Photo captured during field observation

According to my observation, the green plant's development was located at woreda 03 on the road from 'Ayat' square to 'Seba Hulat' area on the main road near to Lami Kura sub-city office. The green plant's composition were indigenous plants. It was located in a suitable area for the market. This indicated urban expansion at study area inclusive of the urban agriculture specially plant nursery, which means that it benefited the farmers surrounding.

Animal husbandry was found in 'Seba Hulat' area. The road from Ayat square to SebaHulat area took me to the animal husbandry. The location of the animal husbandry was somehow departing from the main road and it is difficult for the customer to access it. There are 5 cows in the breeding house and the name of the organization was 'Beteseb Ketema Gebrena Yewetat lam Erbata Wetat Makefafaya ena meshecha'. In contrast to plant nursery, urban expansion was pushed farmers who engaged in animal husbandry because the urban residents were not need to see and smell any animals wastes.

Trading

According to W/ro Abebech Neguse from woreda 03 officers of cooperative work association *"some farmers were organized with trade sector specifically in fruit and vegetable sales, wholesale of alcohol, wholesale of grain and construction material sales."* Farmers were engaged in sales of construction materials, to provide building materials used for construction of real estates and other condominium housings. This confirmed that urban expansion transformed the farmers from cultivating vegetables and fruits and crop production to selling or being merchant. Generally, urban expansion changed the farmers to being trader.

Ato Daniel Abdo is a young man who was graduated from technique school and working with his household construction material provider cooperative work. As he has said *"I was working as a daily laborer as soon as my family land was taken by the government for condominium construction. I was doing the daily laborer to help my parent. Currently, I am working in the construction material supply cooperation work of my household. We change our livelihood strategies to the construction sector using reestablishment funds provided us by government. My job status in the construction sector is sells man. I have monthly paid after I have started doing*

this job. Our market source is related to the expansion of condominiums surrounding the rural area. We have trained in shop materials organization and data recording system."(Informant from FHHs, Apr. 26/2021, at his working place). Urban expansion create a job opportunity for farmers who gained training at school.

Table 4.4 Job opportunity in Trading

| Trading | Frequency | Percent |
|------------------------------------|-----------|---------|
| General trading shop | 8 | 5.3 |
| Fruit and vegetable retail sellers | 3 | 2.0 |
| Construction Material provider | 4 | 2.6 |
| Beauty material /cosmetics trading | 1 | 0.7 |
| Others | 1 | 0.7 |

source (field data)

Even though urban expansion has created small scale trade job opportunities, farmers households engaged in trade job opportunities were very few. Some of them were working in general trading, fruit and vegetable retail selling, construction material providing and beauty material/cosmetics trading.

Image 3. Construction material supplier



source (my observation)

Hunde Gudina construction material supplier was organized on supplying construction material. It was located around the condominium and real estate construction of 'sumit condominium'. Its specific address was the 'sumit' area near saint Georgis church.

Construction industry

According to 'Ato' Zenabu. *"even though there are construction jobs in the woreda, farmers were not organized in the construction sector because of lack of skill and the decline of employment opportunity in the construction sector."* (Key informant from woreda 3 MSE, April 10/2021, at MSE office). Therefore, urban micro and small scale enterprise failed to provide construction skill for farmer.

An informant from 'shobe' was said that *"I was doing in construction sector job before but now I am turning to green plant cultivation. Even though I was gaining construction Skill, the income was not sufficient."* (Informants from Shobe farmers village, April 22/2021.at informant workplace). Green plant cultivation was better income source than construction sector

Similarly, Ato Muluneh Urge said that *"I was a contractor in Ayat real estate before twenty years. I was working in the real estate for eight year."* (Informants from Shobe farmers village, April 5/2021.at informant home).

Table 4.5 Job opportunity in the construction industry

| Construction | Frequency | Percent |
|--|------------------|----------------|
| General contraction | 2 | 1.3 |
| Building construction | 3 | 2.0 |
| Water pipe and electric maintenance | 4 | 2.6 |
| Others | 4 | 2.6 |

Source: Field data

Farmers households were joined general construction, Building construction and maintenance of water pipe and electricity. But most farmers were not preferred construction job sectors.

Service Sector

The other interviewee W/rt Jalane was a young girl who is currently engaged in restaurants and groceries. As she has said *"Before I had started restaurants and grocery work I was living abroad, but economically I was not succeeded, consequently, I decided to return to my country then I have started restaurants and grocery job before 5 years. My customers are patients coming for holly water of Jesus Christ, Patients of Abebech Gobena Referral Hospital ,taxi drivers, and Macedonia elders centre. My sister has also started working with me. She has sold coffee. Currently, I have improved the service by changing the sitting of the restaurant with a plastic chair. I could also continue the degree program with business administration."* (Key informant from FHHs, April,25/2021 at his Grocery and restaurant). Urban expansion benefited farmers from the service sector jobs like restaurants and grocery works.

My key informant Ato worku an adult man who was working in farming was said *"I was a teacher at an elementary school for six years. Then I have been working in grocery since 2011. As he said, he can improve the school of his children. He sent them to private school. I could give job opportunities for 6 people in my grocers. The urban expansion due to condominium changes my customers size and also my customers are from Macedonia elders centre. He said that I am attending a degree program on marketing management at a private college."*(Key informant from FHHs, April,20/2021 at his Grocery). Urban expansion changed farmers

households education from lower level education to college level and provided access to job opportunity for household members.

Table 4.6 Job opportunity in the service sector

| Service sector | Frequency | Percent |
|--|-----------|---------|
| Soil digging and cleaning service | 2 | 1.3 |
| Soil dumping service | 3 | 2.0 |
| Grocery and restaurant service | 4 | 2.6 |
| Taxi driving service | 12 | 7.9 |
| Others | 17 | 11.4 |

Source(field data)

Farmers households job opportunity next to urban agriculture was service sector job. Most of the farmers households who engaged in service sectors were doing taxi driving service while some of them were engaged in grocery and restaurant. Few of them were working in soil dumping and cleaning.

Urban expansion provided access to driving license for the farmers households. Therefore, most farmers were engaged in taxi driving service job to sustain their life

Manufacturing Sector

Table 4.7 Job opportunity in the manufacturing industry

| Manufacturing sector | Frequency | Percent |
|-----------------------|-----------|---------|
| Pastry & Bakery | 1 | 0.7 |
| Garment manufacturing | 2 | 1.3 |
| Metal work | 1 | 0.7 |
| Wood work | 6 | 4 |
| Brick work | 1 | 0.7 |

Source: (field data)

Most of the FHHS who engaged in the manufacturing industry sector was a woodworker. Even though the study area was expanded with the construction of housing farmers were not engaged in bricks production and metalwork. Farmers preferred wood work than others because urban expansion maintained the wood work or wood work product is need by the urban dwellers.

4.4.Impacts of urban expansion on farmers households school attendance& participation.

There is a positive relationship between urbanization and education. Returns to education are generally higher in urban than rural areas-and so literacy rates and enrollments should be higher in urban than rural areas. (Arouri...et al, 2014)

According to my key informant, Ato Tegabu the education officer of woreda 03 " *urban expansion declined teachers' turnover. Before the urban expansion, the teachers were not accessed transport, electric and water service. Additionally, teachers have not had housing near to school facilities. Due to those shortages, the teachers turnover were high, but currently, the urban expansion improved access to transport, electricity and water service surrounding the schools found in the farming community. The urban expansion also improved access to housing*

near schools surrounding the rural community. Those improvements change the teachers' turnover positively. " (Key informant from woreda 03 Education officer, May 2/2021,at woreda 03 education office) Therefore, urban expansion maintained the rural teachers to be stayed on their job consequently the school participation of farmers were increased.

In addition, he said that *"urban expansion expanded elders' education. Elders who were not able to read and write before urban expansion are currently started to read and write. They have not had the understanding of how to keep their household and environment sanitation. After the expansion of the school in the community, the teachers taught the households how to keep environment and household sanitation. Currently, every household can keep their household and environment sanitation."*

Urban expansion improved the frequency of school monitoring. The road to school in the rural community was not asphalted before eight years. These were challenging the education supervisor to frequently monitor the school in the rural community. After the road is constructed with asphalt and access to transport is facilitated the monitoring frequency is improved, and the process is changed from telephone way of monitoring to physical/face to face way of monitoring. Urban expansion improved the school participation of rural students. Before the urban expansion, the school in the rural community was not made of sports activities and educational competition with the urban schools. Currently, the schools in the rural community started to participate in the competition which attracts the students to participate in schools.

Table 4.8 FHHs school attendance

| FHHs school attendance | Frequency | Percent |
|--------------------------------------|-----------|---------|
| FHH who were attending school | 136 | 90.1 |
| FHH who were dropping school | 78 | 51.7 |
| FHHs who were illiterate | 56 | 37.1 |

School enrollment at both primary and secondary levels increases with urbanization(Arouri...etal,2014). Likely, the highest number of farmers households were attending school after urban expansion. Unlikely, among the farmer's households who were attended school more than half of them were dropped out of school. Even though urban expansion provides school opportunities in the study area there were still illiterate farmers households.

Fig. 4.3 FHHs, School Participation

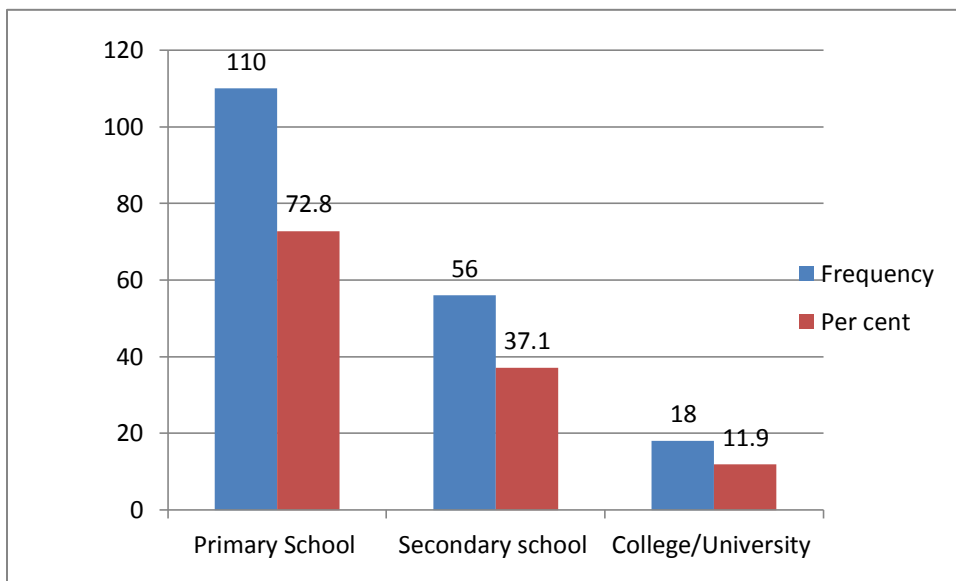


Fig 4.3 FHHS, School participation

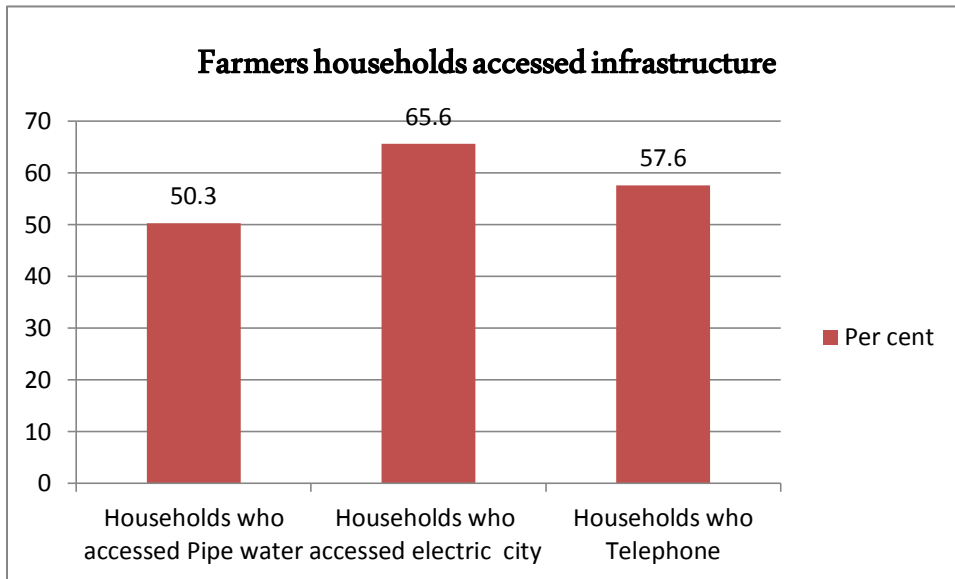
Source(field data)

According to data obtained from statistical abstract produced by the Educational Bureau of Addis Ababa, gross enrolment ratio in 2011 for primary school and secondary school levels was close to 108 and 80 respectively.(AACPPO,2017)

The urban expansion enables the farming community to access primary and secondary school and college/university. Likely, most households were attending primary school. Unlikely farmers participation of secondary school was Less than fifty percent.

4.5.Impacts of urban expansion on farmer’s household Infrastructure.

Fig 4.4 Infrastructural changes after urban expansion



source (field data)

Urbanization changes to access to infrastructures like water, clinic, electric and telephone etc.(Alham,2017). According to this study, infrastructure includes the expansion of water, road, electric city, banking, telephone, school and health services. The study conducted on the woreda 3 rural community using observation and key informant interviews were exploring the changes urban expansion brings to the rural community regarding infrastructure were the change in water service, health facilities, electric city, school facilities, road facilities, banking service, telephone services.

Consequently, the survey data, about half of the farmer's households in the study area were not accessed water and telephone service. Similarly according to my direct observation, even though few of the rural communities had pipe water majority of farmers surrounding woreda 03 were not had piped water at their home. The households were using a common water hole (pump water). The farmer's cattle were drinking river water. In addition, *As informant Tigist Bulcha said "the urban expansion changed or improves to some extent access to water service. The households can get water services or water pipelines from the expansion of condominiums. The interviewee also said that we were going too far distance to get the water service "My residence is at "Jeldu" rural community I was going about 1 km to get water from "Bonno sefer". After a few years, the expansion of the condominium allows me to get water at my home." (Informant from Jeldu, April,3/2021)*

Regarding to electric service the survey indicated us , after urban expansion farmers households better accessed electric service than water and telephone service. The interviewee response below also strength the access to electric service was better after urban expansion. Similarly, *Ato Muluneh Urgae was said that "electric power was the challenge of the community I am living in but now after five years I have to get electric light service from the expansion of the*

condominium. The expansion changes the candlelight to electric light therefore I am satisfied with the electric light because I can watch TV. I am also able to rent housing."(Informant from 'shobe', April 5/2021)

In addition, the key informants Ato Desta said that "there was the problem of good governance regarding the electric service provided because of the guideline of land administration "No one can make construction or get an allowance of electric and water services at his home before getting house plan. Therefore, there were challenges of getting water and electric service. But currently, this is changed, the farmers were allowed to get their land plan, and they can get electric light."(Key informant from woreda Leader, April, 2/2021 at woreda office)

Health facilities

Urban populations have more chances to reach hospitals and care centers and to have access to sanitation. Health care systems are also more developed, which may lead to better health performances than those in rural areas(Arouri...et al,2014).

Table 4.9 health facilities expansion

| Health facilities | No. of health facilities | 2012 | 2014 | 2017 | 2019 | 2020 | 2021 |
|----------------------|--------------------------|------|------|------|------|------|------|
| Pharmacy | 10 | 1 | 2 | 5 | 7 | 8 | 10 |
| Medium clinic | 7 | | | | | | 7 |
| Health centre | 2 | | | | | | 2 |

Source (Lami Kura woreda 03 health office)

Similarly access to health facilities at the study area were expanded from time to time. Concurrently according to my key informant W/ro Chaltu "Health facilities were not available in

the community before ten years. After 2011 private clinics and pharmacy were started giving service, and then government health post was established in 2013". In addition, the current data of the woreda health office, showed us an increment of clinics from non to 7 and pharmacies from 1 to 10 in the previous nine years. Therefore, urban expansion improved access to health facilities.

School facilities.

Table 4.10. School facility expansion.

| Level of school | No. of schools | 2012 | 2013 | 2018 | 2019 | 2020 |
|-----------------------------------|----------------|------|------|------|------|------|
| Primary school (Grade 1-8) | 3 | 1 | 2 | 3 | 3 | 3 |
| KG school | 8 | - | 1 | 3 | 4 | 8 |
| Total | 11 | 1 | 1 | 3 | 6 | 11 |

Source (Lami Kura woreda 03 education office)

School facilities were not available in the community as my key informant Ato kebede before nine (9) years. The first primary school was constructed in 2012. Similarly the current, a data of the woreda education office indicated, there are 3 primary schools and 8 KG schools in the study area. Therefore, the number of the school facilities increased from time to time as urban expansion increased.

Road facilities

According to my key informant Huluqa, *"road facilities were not available in the study area before eight (8) years. The asphalt road is constructed in 2013. Before the road was constructed the transportation facilities were carting transport and higher bus transport service. Then the "Anbesa" bus transport service was started."*

Banking Service

As my key informant Huluqa was said that *"banking service was not available in the study area, but currently, there are 2 commercial banks and 4 private banks. The expansion of banks changes the attitude of farmers towards saving."* As an interviewee has told me that *"the farmers were not using bank service but since the bank service expanded we started to use the service."*

4.6.Impacts of urban expansion on farmer's household health.

4.6. 1 Health facilities accessible to farmer's households after urban expansion

Table 4.11 Accessibility of Health facilities

| Types of Health Facilities | Frequency | Percent |
|----------------------------|-----------|---------|
| Hospital | 19 | 12.6 |
| Health post | 55 | 36.4 |
| Clinic | 79 | 52.3 |
| Pharmacy | 78 | 51.7 |

source(field data)

The most accessible health facilities surrounding the study area were clinics and pharmacies. Farmers households who accessed health post and hospitals were less than half of the sampled farmers households.

Concurrent to the above tabular data residents of urban environments often have greater access to health care and social services, although access may differ by city size and may not be distributed equally among all residents(Pinchoff....etal,2020). Similarly, the urban expansion changes the health service accessibility of the farming community. Before the urban expansion, the farmers had been gone to other kebeles or woreda "Gurdshola" or "CMC" or "Kara". But currently, the health post of the woreda 03 has been giving service since 2012 therefore it declines the farmer's expense to access the health institute because it is built surrounding

farmers. Before the health post built, pregnant women have not been going to the health post. They were giving birth at home, and they did not access to vaccination.

In addition, the secondary data of the health office of the woreda 03, there were no health facilities before 2012 while today there are one government health post and one hospital, nine private medium clinics and ten pharmacies. Therefore, the accessibility is highly improved from previous as the group discussion participants were said because the population size of the rural community plus the urban migrants are not exceeded the expected population to be served by the health post which should be 30 to 50 thousand.

The benefit of the health post is explained by the participants as it is changing the farmers from giving birth at home being born to the health post, allowing vaccination, family planning, and decrease the death rate. Therefore, urban expansion has not only the expansion of health facilities but also it has the improvement of health care services from infant delivery at home /culturally/ to health facilities , improvement of child vaccination and family planning which were not accustomed before and finally urban expansion has also decrease the death rate.

In addition, according to sister Hilena Mekoanent was said " *twenty households have not had a latrine, but currently, they accessed two latrines with the effort of the woreda health post. In addition, pregnant was not going to health post to check up on their pregnancy status because they did not have an understanding of health education ,therefore they did not come for a check-up for about six to seven months, but currently, they started to come to health post to get the health service and to make check-up. They also started to born their children in the health post.*"(Key informant from Urban health extension worker, April 25/2021, At her office) In conclusion, urban expansion has improved the access to sanitation service and prenatal check

up. To add some *"The farmers were using the indigenous health care system. Indigenous drugs were used to heal their patient. But today most farmers were coming to health post to access health service"* sister Sergut Mitiku, from urban health extension worker, April 25/2021, At her office) Therefore, urban expansion has changed the indigenous health care system to the modern one in the study area.

In supporting, urban expansion has improved access to health services, Sister Aynalem Teshome said *"even though there is a road infrastructure the transport service is very expensive. Laboratory service was not available due to lack of electric power, therefore, farmers were going to other private clinics but today the access to power has improved, so the laboratory service is started and farmers are saved from laboratory, transport and time cost."*

Beside the above sister Aynalem Teshome idea, urban expansion also improved the access to health information through a health professional and telephone service. For instance patient of Tuberculosis are especially followed their drug with telephone service. In addition, access to medicine is easy to the farmers because pharmacy service is also accessible to farmers since it has found in the health post-camp."(Key informant from urban health extension worker, April 25/2021, At her office)

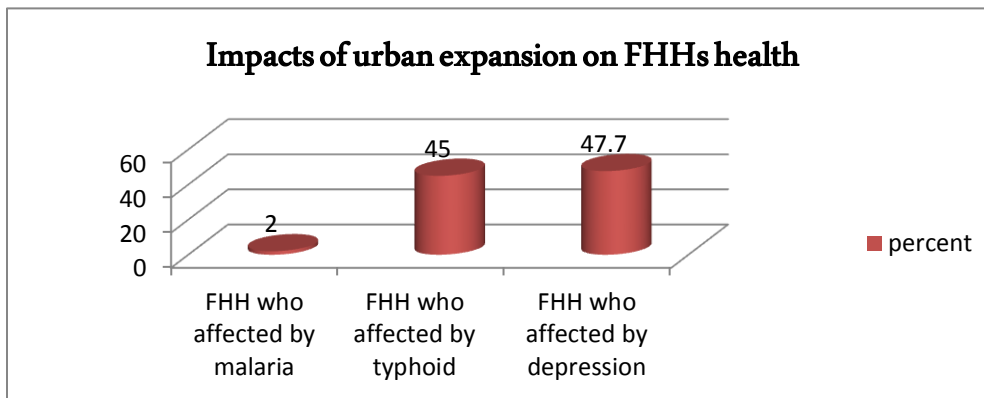
Table 4.12 opportunities of urban expansion on health

| Opportunities of urban expansion on health | Frequency | Percent |
|--|-----------|---------|
| FHH who accessed Health Insurance | 78 | 52.3 |
| FHH who accessed Health education | 88 | 58.2 |

source(field data)

The urban expansion provided health insurance and health education service for farmer's households but only around half of the households get the health insurance and about two-third of has got health education. Therefore, health insurance and education was familiarized by the farming community due to urban expansion.

Fig.4.5 Impacts of urban expansion on FHHs health



Source:-(field data)

“Health systems may be faced with higher numbers of individuals with respiratory conditions, obesity, diabetes, and cardiovascular events, as well as infectious diseases spreading quickly due to people’s close proximity.”(Appold K.,2019)

Concurrently, urban expansion has affected the health condition of the farmers with depression and typhoid. Depression were expressed as the major problem than typhoid and malaria. Depression was caused by the frustration to familiarize with non farming livelihood. Besides the depression, the participants have discussed the household health after urban expansion as follows *"Urban expansion exposed the rural community to tuberculosis (TB) because of housing expensiveness people migrated to a rural area to search housing rent at cheap price consequently six to seven migrants are renting a room. This created suffocation in a narrow*

room and exposed them to tuberculosis. The farmer's households are also affected easily with TB.. Urban expansion exposed farmer's household to Psychological inferiority, rape, HIV and sexually transmitted diseases."(Sister Meseret Fantu, from Urban Health extension, April 25/2021, At her office). Therefore, urban expansion a cause for both transmitted and non transmitted diseases.

4.7Impacts of urban expansion on farmer's environmental health.

Table 4.13 Impacts of Urban expansion on environmental health

| Environmental Health | Frequency | Percent |
|------------------------------------|-----------|---------|
| Water contamination | 60 | 39.7 |
| Noise | 54 | 35.8 |
| Air pollution | 37 | 24.5 |
| Crowded Living/overcrowding | 96 | 63.6 |

Source(field data)

The number of farmers households who were affected by crowded living and water contamination was more than those who were affected by noise and air pollution. Therefore environmental health of the farming community was declined mostly by crowded living and water contamination. According to a focus group discussion participant, *"urban expansion changes or decline forest resources of the farmers because it was deforested for housing construction. Consequently, the wildlife resource of the farmers declined. The urban expansion also contaminated the water resource of the farming community due to improper solid and liquid waste management. Besides, the improper soil and other construction wastes dumping contaminate the rivers surrounding the community which is used for the farmer's households for washing and cattle drinking."* FGD participants of students & Alemaz Bekalu and (Key

informant from woreda Environmental officer May,5/2021) Therefore, urban expansion has decline the environmental health of the rural community

Image 4 Impacts of Urban expansion on environmental health



Source (field data)

According to my observation soils from construction were dumped on the river and the river was contaminated with wastes from construction materials and other solid wastes. The soil dumped on the open space also destroyed the green plants of the area.

Similarly, the participants have recognized the effects of urban expansion on the environmental health of the rural community by explaining that *"wastes have seen here and there in Shobe, Jeldu and Chefe area which has a bad odor and affects children respiration or causes a respiratory problem known as Tonsil. In addition, liquid wastes from urban migrant's bathrooms challenged the health of the farming community, especially during the rainy season. The smell of solid as well as liquid wastes is aggravated during holidays."* (Sister Aynalem Teshome, from Urban Health extension worker, April 25/2021, At her office)

Urban expansion declined the health of farmer’s communities with communicable diseases due to crowd. Before the urban expansion, farmer’s way of life was dispersed. Urban development changed the scattered way of life to a crowded way of life following this expansion urban the health condition have been changed negatively since urban expansion. As the group discussion participant, an epidemic of measles has happened in the crowded rural community which was passed away as a child. Another participant of the discussion was said that in Shobe (the study area) *"coughing and typhoid are affecting the community repeatedly."* Sister Abebaye Fantu (Key informant from Urban Health extension worker, April 25/2021, At her office)

4.8.Impacts of urban expansion on farmer’s household housing

Table 4.14 Improvement of housing by size and quality

| Housing changes after urban expansion | Frequency | Percent |
|---------------------------------------|-----------|---------|
| Improved Housing quality | 81 | 53.6 |
| Increased Housing size | 104 | 68.9 |

source(field data)

Farmers households whose housing quality improved were more than those whose housing quality were not improved after urban expansion. In addition, farmers whose housing size increased were more than those whose housing size was not increased after urban expansion. Therefore, urban expansion have significantly changed the size and quality of farmers housing. Beside the survey data on housing ,according to my key informant Ato Huluka *"the current farmers housing is better than before the urban expansion. Some farmers have built villa houses and can be build additional rooms to rent after urban expansion."*

In addition, I have observed that, "the farmer’s house is changed highly with the house commodities such as sofa, TV with its modern TV stand and house with kitchen pieces of

equipment, the house is also built with cement and with French door and windows. The fence of their house is made from bricks and with a metal door entrance". In general, urban expansion has improved the size and the quality of the farmers housing after urban expansion.

Image 5. An outside view of farmer's house after urban expansion



Source (my observation)

Beside the observational data some informants have said concurrent to my observation. Accordingly, Ato Bekele said that *"my household was living in a mud house, but now it is changed to brick house. Before I had not my bedroom, but currently I have a separate bedroom. My sister also has her bedroom. My father and mother have their bedroom."* (Informant from FHHs of 'jeldu' village April,6/2021)

In similar way, my key informant Ato Muluneh Urgae said that *"the housing surrounding the farmers is G+1, G+2 and above. Even though I need to change my house, I have been asked to do with the surrounding housing standard."* (My Informant from FHHs of Shobe village April,6/2021)

"I have been living in mud and hut house, but now I am building villa house with on my land with the money I have earned from selling condominium I have been compensated." (My informant Ato Abebe,from Jeldu village April,6/2021)

4.9.Impacts of urban expansion on farmer’s households’ Social Relationship

Table 4.15 Impacts of urban expansion on social relation

| Social Relation | Frequency | Percent |
|------------------------|-----------|---------|
| Edir | 16 | 10.7 |
| Equb | 21 | 13.9 |
| Coffee ceremony | 47 | 31.1 |
| Debo culture | 80 | 53 |

source(field data)

Farmers’ engagements in cultural practice before urban expansion varies from high to very high. However, after urban expansion this figure changed to the opposite(Beka,2016). Similarly, cultural practices like debo culture, coffee ceremony, equb, and edir were declined after urban expansion by 53%,31% and 14% and 11% respectively

In order to precise the above information my key informant Ato Huluqa was said *"Before the urban expansion, farmers were joined to drink coffee in the morning during their free time. But currently, the urban expansion declines the coffee ceremony among the farmers because the farmers are evicted to a different area. Currently, the social relationship is based on 'edir' and family eve program. In addition, before the urban expansion, the farmers were supporting each other with farming activities and housing construction. Nowadays, urban expansion changes the culture of supporting each other or decline it. During the wedding ceremony farmers who were from the male family ‘walecha’ come to the family of the bridegroom with holding birr, bread, ‘enjira’, ‘tella’,alcohol drinking ‘areke’and ‘gumata’ which is collected money from the*

community. Today the wedding ceremony is changed or declined to the modern wedding ceremony." (My informant from Shobe village, May 10/2021, at his village)

4.10 Impacts of urban expansion on the FHH land and Livestock Resources

Table 4.16 Land resources of FHHs after urban expansion

Urban expansion decreased the number of livestock, land and financial capital. The type of land lost due to urban expansion is agricultural, residential and grasslands(Ahlam,2017).

| Type of Land | Frequency | Percent |
|---------------------|-----------|---------|
| Farming Land | 96 | 63.6 |
| Grazing Land | 80 | 53 |
| Forest Land | 50 | 33.1 |

Source(field data)

But at the research area the type of land declined after urban expansion were farming land, grazing land and forest land respectively. Likely the key informants were concurrent to the tabular data above therefore they were said *"Before the urban expansion, I had 2.25 hectares of farming land, but currently I have only 0.25hectare of farming land. Regarding forest land , before urban expansion, I have also 1 hectare of forest land, similarly I have the same size of forest land after urban expansion. Similarly, "Before the urban expansion, I had 1 hectare of farming and 1hectare of grazing land but currently due to urban expansion, I have no land. (Ato Lemu Tadessa key informant from Jeldu village. April 10/2021) "Before the urban expansion, my farming land was 10 hectares. I had also 5 hectares of grazing land. But now I don't have land. (my informant from chefe village. April 13/2021)*

Table 4.17 Livestock resources of FHHs after urban expansion.

Regarding livestock, the number of oxen, cows, sheep and goats the households have before urban expansion were decreased after urban expansion(Ahlam,2017).

| Type of Livestock | Frequency | Percent |
|-------------------|-----------|---------|
| Cow | 104 | 68.9 |
| Ox | 96 | 64.0 |
| Sheep | 79 | 52.3 |
| Goat | 59 | 39.1 |
| Donkey | 78 | 51.7 |

source (field data)

Similarly, the type of livestock in the study area which declined after urban expansion were respectively cow, oxen, sheep, donkey and goat. Cows and oxen were highly declined due to lack of farming land and grazing land after urban expansion. Donkey was still giving service for the farmers. Goats were highly declined while sheep and donkeys were declined by half after urban expansion. Similarly , *Ato Lemu Tadesse said before the urban expansion I had 4 oxen, 40 goats, 4 cows and 2 donkeys, but currently, I have only 2 oxen, and 1 cow.*"(key informant from Jeldu village. April 10/2021)

.Moreover before urban expansion I had 4 cows and 2 oxen, but currently I haven't cows and oxen because my land has been taken by urban expansion."(my informant from shobe village. April 11/2021). In addition , *"I had been 5 cows, 10 oxen, 30sheeps, 40 goats and 4 donkeys. But now I don't have any kind of livestock.*"(my informant from chefe village. April 13/2021)

Image 6. Land resource of farmers after urban expansion



According to my observation, there was few farming land resource and some of the farmers were producing ‘teff’ and wheat on their land but the majority of their land was taken by condominium construction.

4.11. Level of satisfaction of FHHs on urban expansion

Table 4.18 FHHs Level of satisfaction on urban expansion.

| No | Indicators | V.high | High | moderate | Low | Dissatisfied | No answer |
|----|----------------------|--------|-------|----------|-------|--------------|-----------|
| 1 | Housing habitability | 8.6% | 22.5% | 47.0% | 14.6% | 6.6% | 0.7% |
| 2 | Water service | 6% | 18.5% | 31.1% | 29.1% | 11.9% | 3.3% |
| 3 | Electricity | 6.7% | 22.7% | 36.0% | 19.3% | 14.0% | 1.3% |
| 4 | Education | 15.3% | 44.7% | 22.0% | 12.0 | 4.0% | 2.0% |
| 5 | Health service | 9.3% | 37.1% | 27.8% | 15.9% | 7.9% | 2.0% |
| 6 | Job opportunities | 3.4% | 16.1% | 29.5% | 20.8% | 24.2% | 6.0% |

The sample number of farmers households who were satisfied with housing habitability, water service, electricity, education, and health service and job opportunities was more than who were dissatisfied.

About half of FHHs were moderately satisfied with their housing habitability after urban expansion. While one fourth of the FHHS were highly satisfied with their housing habitability. Few(7%) of them were dissatisfied with housing habitability. Generally, the data of FHHS satisfaction on housing habitability indicate that FHHs housing habitability were better than before urban expansion.

The level of satisfaction on water services shows that after urban expansion access to water service is improved for about 56% of FHHs. Similarly, the level of satisfaction of FHHs on electricity ,education and health services were indicated greater number of FHHS were better accessed those services after urban expansion.

The level of satisfaction on job opportunities showed us average number of FHHs were accessed job opportunities after urban expansion compared to those who are unemployed.

4.12 Attitude of FHHs towards urban expansion

Table 4.19 FHHs attitude on urban expansion

| The attitude of farmers households towards urban expansion | Bad | Good | Very good | Excellent | Very Bad |
|---|-----|-------|-----------|-----------|----------|
| Attitude towards the development of road | - | 66.9% | 33.1% | - | - |
| Attitude towards the development of education services | | 22.5% | 44.4% | 33.1% | |

| | | | | | |
|---|-------|-------|-------|---|-------|
| Attitude towards the development of health services | - | 44.4% | 55.6% | | |
| Attitude towards the effects of urban expansion on social relation | 77.5% | - | - | - | 22.5% |
| Attitude towards the effects of urban expansion on land resource | 33.1% | - | - | - | 69.9% |
| Attitude towards the effects of urban expansion on livestock resource | 77.5% | - | - | - | 22.5% |
| Attitude towards the effects of urban expansion on job opportunities | 44.4% | 33.1% | 22.5% | | |

source(field data).

4.12.1 The attitude of farmers towards urban expansion.

According to the data shown in the above table, the attitude of farmers towards road, education, health and job opportunity were good while farmers attitudes towards social relationships, land and livestock resources were bad because urban expansion declined the livestock resources and social relationships of the farmers.

According to the focus group discussion on the attitude of farmers towards urban expansion, participants have expressed their attitude as follows:- some of them expressed the negative side and others were emphasized the positive effects of urban expansion.

Ato Getachew Abera was said that *"Urban expansion for me is an eviction of farmers from their land and being the loss of land or giving land for urban dwellers without cost. Urban expansion is also loss of land plan, job opportunity, and crowded of housing, shortage of land and*

contamination of water and deforestation of the forest." (my informant from cooperative work association, May 14/2021 at woreda office). This means that urban expansion has negative impact on economy and environmental health of the farmers community.

Henok Derege also said *"Urban expansion is bad for me because I feel isolated and psychologically depressed when I see the real estate and buildings expansion. I sense inferiority among the urban society."*(my informant from cooperative work association, May 14/2021 at woreda office). This showed us urban expansion has also negative impact on farmers psychology. Similarly, even though *"Urban expansion enables me to build my housing with a zinc roof and bricks, It has many negative consequences on the farmers for me. Because of shortage of land, I cannot produce cabbage in my compound because of urban expansion change my land to building area."* *"Due to urban expansion, many farmers became unemployed because it evicts the farmers from their farming land. Urban expansion is also bad for me because I have been stolen twenty seven cow's ."* (Ato Geremew Chala my informant from cooperative work association, May 14/2021 at woreda office). Termini ski, (2012) also shared the agreeing with the study finding, he was stated urban expansion has negative effects on rural land consequently on the economy of the farmers, likely urban expansion affects the economic security of rural communities because of development-induced development

Regarding social relationship or culture, urban expansion has tremendous impacts on the previously existing communities cultural practice. For instance in sululta area all cultural practices are affected negatively because of lack of existing institution or authority that stands for preservation and recording of the areas rich cultural practice(Beka,2016).Likely my informant said *"As my attitude urban expansion should be farmer's inclusive development. It should also keep the values of the farming community and should consider the lifestyle of the farmers and*

should not ignore the culture of the farming community. "(Ato Henok Derege, my informant from cooperative work association, May 14/2021 at woreda office).

Other participants were said that *"urban expansion for me is an expansion of infrastructures like water, housing and electric services and farmers have enabled to share job opportunities and after urban expansion. farmers have also got an opportunity of school participation and they have got access to administrative and bank service at district level."* Ato Daniel Abdo, my informant from cooperative work association, May 14/2021 at woreda office)

Similarly, Ato Daiel Abdo was said "Urban expansion is good for me as my community "72 sefer" because it creates an opportunity to build a house for rent. In addition, urban expansion create an opportunity to share job experience . "(My informant from cooperative work association, May 14/2021 at woreda office)

As Ato Huluqa said that *"before few years there were challenges to accept the urban lifestyle and were challenged to adapt urban life system. Before urban expansion, the farmers' practices were producing agricultural products, consuming and selling. Due to urban expansion, farmers were feeling psychological inferiority to buy food items from shops."*(My informant, from shobe village, June 5/2021 at his village)

4.12.2 Farmers attitude towards Job opportunity

Even though government has been provided interest-free credit services as well as rehabilitation fund opportunities, most farmers do not need to take the credit and rehabilitating fund because farmers had a fear not to be debited. The farmers were also discouraged due to the process of getting the fund or the credit.

4.12.3 Farmers attitude towards health

"Urban expansion is better for me in school participation than before." Health service was previously at Bole health centre now we get health post at our community." My key informant Ato Huluqa told me that "there was a belief that a woman who gives birth or born should go to a belief area called "Hamechissa" before fifteen(15) days of her born baby. She believed that the "Hamechissa" protected her child from bad spirit and make her child healthier. After urban expansion to some extent, the cultural belief declined because of the expansion of health education and religious education. (My informant, from 'shobe' village, June 5/2021 at his village)

4.12.4 Farmers attitude towards education.

Urban expansion changed the farmers households attitude towards education. School participation were also improved after urban expansion. *"Before urban expansion we send our children to distant schools like 'Kotebe' and 'Megnagne', now school is built at a near distance.. The households were not sent their children to school. Currently, the number of students are increased after urban expansion. Similarly, before urban expansion the households' belief in education was not strong. They prefer to be a farmer rather than sending their children to school because they believe that school takes long years to change their life. The urban expansion changed this thought then the households are started to send their children to school therefore the student absenteeism is declined. The school time per day was also few before urban expansion, but currently, the time is increased."*(My key informants Ato Tegabu and W/ro Weyneshet Education officer, June 5/2021 at education office)

"Generally, the rural households' participation in school was not present. Currently, the farmers' households' attitudes towards school has changed, and they started to participate in

the school committee. They have started to ask about their right and exercise their responsibility." (My key informants Ato Tegbau Education officer, June 5/2021 at education office)

Another interviewee was said that *"I am an illiterate man, I feel sorry because I can't read, understand and write, but now I send my children to school and paid for their school fee"*(Ato Lemu Tadesse My informant from FHHs Jeldu village, April, 6/2021)

"Before urban expansion, there was high termination of school, families were not sending their children to school on time because they need them to help in farming, and they need to marry their female children. But now with the help of teachers follow up and support their attitude to school has improved. In addition, schools have started teaching with the mother tongue of the student; this helps them to improve their attitude towards their education." (Key informant W/ro weyneshet, from education office, June 5/2021)

In contrast, according to my key informant, urban expansion has not improved the farmer's attitude towards education. After the urban expansion of farmers, households have changed their economic status by renting their land for urban to rural migrants and some of them sold their land. Some youths buy taxis but discontinued from primary school because their attitude is negatively affected on education due to the money they were able to get from the urban expansion. Most farmers have not trusted with education because they thought that *"If I can get money on short time I don't need to waste long years on education "*(Key informant from Jeldu village, April 12/2021).

CHAPTER FIVE

5. Summary, Conclusion and recommendation

5.1 Summary and Conclusion

In this chapter, I was summarized major works of the research in the study area based on the my field data and secondary data and I was forwarded conclusions and recommendations for government , researchers ,community and NGOs.

Urban expansion is an opportunity for some or challenges for others. It is an opportunity when it is generating decent employment opportunities.(UN-2018).According to key informants *urban expansion generate employment opportunities for green plant development, Animal husbandry, and oxen fattening respectively*. In addition, Ato Worku and W/rt Jalane also said "*urban expansion create a grocery and restaurant job opportunities in the surrounding community*". Similar to the key informants information out of the sample farmers households under study 52% of them were engaged in urban agriculture,25% of the farmer's households were actively working in service sector jobs while 11% and 9% of them were self employed in trading and employed in construction jobs respectively. In addition, the government support the farmers evicted from their farming land with creating job opportunities in cooperative work association. Therefore urban expansion in the study area was an opportunity in generating job opportunities for the rural community.

Urban expansion is an opportunity if it preserves a healthy environment within the city and surrounding area.(UN-2018) In contrast the researcher survey indicated the urban expansion surrounding woreda 03 administration affected 25% of farmers households with air pollution,

64% of them with crowdedness, 40% of them with water contamination and 36% of them with noise. Similarly " *The urban expansion also contaminated the water resource of the farming community due to improper waste management. Besides, the improper soil dumping and construction wastes contaminate the rivers surrounding the community. The contaminated river affected the health of the farmers as well as their cattle.*" Therefore urban expansion in the study area was a challenge to the environmental health of the rural community.

According to (Arouri,2014) urbanization improves access to basic education for all. Similarly, urban expansion in the study area improves access to kindergarten and primary school education. According to the survey data the number of kindergarten school facilities increased from 1 to 8 in eight years from 2013 to 2020. The primary school facilities similarly increased from one to three in nine years from 2012 to 2020. Consequently, out of the sample farmer's households studied 73% of farmers households were participating in primary school while 39% of them were sending their children to kindergarten. Similarly, my key informant Ato Tegabu said that "*urban expansion expanded elders' education in the study area. Elders who were not able to read and write before urban expansion are currently started to read and write.*" Therefore urban expansion is an opportunity in improving access to education.

In terms of health facilities, Addis Ababa has 39 health centers and 28 health posts that are government-run. There are also 359 private health clinics. The number of hospitals in the city is 40. CSA, (2011). In the study area, there were 8 pharmacies, 7 clinics, 2 health posts and 1 hospital. Concurrently, The key informant sister from woreda 03 health post "*the urban expansion changes the health access of the farming community. Before the urban expansion, the farmers had been gone to other kebeles or woreda "Gurdshola" or "CMC" or "Kara ". But currently, the farmers do not go too long distance to search for health post since the health post*

in the woreda started services in 2012. Therefore, urban expansion is an opportunity in accessing health facilities for the study area.

In contrast to an improvement in access to health facilities in the study area, urban expansion negatively affected the farmers household health. The survey indicated that 48% of farmers households were affected with depression and 45% of them were affected with typhoid after urban expansion.

Similarly "*Urban expansion exposed the rural community to tuberculosis (TV) because of population growth due to urban to rural migration, the migrants were people who shared a room from farmers house rent. Consequently, farmer households were easily exposed to tuberculosis (TB). In addition, urban expansion exposed farmer's household to Psychological inferiority, rape, HIV and other sexually transmitted diseases.*"Sister Aynalem, members of the focus group discussion. Therefore urban expansion was a challenge to farmers household health.

Regarding farmers household houses the number of farmers houses increased after urban expansion. It increased from four rooms to eight rooms (Ahlam,2017).Similarly, this study find out more than half of FHHs houses were improved with quality after urban expansion. In addition, more than two-third of farmers housing sizes were increased after urban expansion. According to my key informant Ato Huluqa "*the current farmers housing is better than before the urban expansion. Some farmers have built villa houses and can build additional rooms to rent after urban expansion.*" Therefore urban expansion was positively affected the rural households.

Urban expansion decreases the number of livestock and land size (Ahlam 2017). Concurrently, the farmer's households agreed on the decline of farming, grazing and forest land. Farmers households whose land declined were 64%, 53% and 33% respectively. Livestock's such as cow, ox, sheep, goat and donkey were declined after urban expansion.

According to this study *"before the urban expansion, I had 4 oxen, 40 goats, 4 cows and 2 donkeys, but currently, I have only 2 oxen, and 1 cow."* my key informant from Jeldu village. *"Before the urban expansion, I had 1 hectare of farming and 1 hectare of grazing land but currently due to urban expansion, I have no land. Before I had 4 cows and 2 oxen, but currently I haven't cows and oxen because my land has taken by urban expansion."* my key informant from 'shobe' village. Therefore urban expansion was a challenge in the study area

The farmers household satisfaction decline after urban expansion (Asmera,2018). According to this research urban expansion highly satisfied most farmers households with housing ,electricity, education and health services. While urban expansion moderately satisfied farmers households with water service, job opportunities and housing compensation. In contrast urban expansion is highly dissatisfied with monetary compensation. Therefore, urban expansion satisfied some of the farmers and dissatisfied other farmers.

The expansion of sugarcane production on the farmers land negatively changed the farmer's attitude because it exposed them to socio-economic crises such as hunger and migration. Solomon (2016). As my key informant Ato Geremew Chala *"Urban expansion has many negative consequences on the farmers for me. Because of shortage of land, I cannot produce cabbage in my compound because of urban expansion change my land to building area."* *"Due to urban expansion, many farmers became unemployed because it evicts the farmers from their farming land. Urban expansion is also bad for me because I have been stolen my 27 cow's urban theft."*

In contrast *"Urban expansion is good for me because it enables me to build my housing with a zinc roof and bricks."* Ato Geremew Chala *"Urban expansion is better for me in school participation and health services than before."* Before urban expansion we send our children to

distant schools like 'Kotebe' and "Megnage", now school is built at a near distance. Mestawat Dibaba "Health service was previously at Bole health centre now we get health post at our community." Ato Huluqa. Therefore urban expansion positively or negatively changed the attitude of the farmers in the study area.

The social relationship of farmers surrounding Hawassa city before the city expansion was very high. After the city expanded the social relationship has become very low.(Firew,2010). concurrently sample farmers households who agreed on the decline of 'edir', 'equb', coffee ceremony and debo culture due to urban expansion were 11%, 14%,31% and 53% respectively.

According to my key informant Ato Huluqa *"Before the urban expansion, farmers were joined to drink coffee in the morning during their free time. But currently, the urban expansion declines the coffee ceremony among the farmers because the farmers are evicted to a different area. Currently, the social relationship is based on 'edir' and family eve program. In addition, before the urban expansion, the farmers were supporting each other with farming activities and housing construction. Nowadays, urban expansion changes the culture of supporting each other or decline it."*

The urban expansion enables farmers households to access all types of infrastructures As the interviewee said *"the urban expansion changed or improves to some extent access to water service. The households can get water services or water pipelines from the expansion of condominiums.*

An interviewee was said that electric power was the challenge of the community I am living in but now after five years I have to get electric light service from the expansion of the condominium. The expansion changes the candlelight to electric light therefore I am satisfied

with the electric light because I can watch TV. I am also able to rent housing. Among the sample farmers households who accessed electric city, telephone and piped water were 66%, 56% and 50% of them respectively. Therefore I concluded that urban expansion is an opportunity in improving the infrastructures in the study area.

5.2 Recommendations

Even though urban expansion has positive impacts in the study area. There are various negative impacts that should be improved or changed by the concerned bodies such as government, NGOs and the rural communities itself. Therefore, I recommended the following...

Concerning education, the government and NGOs have to expand adult education. Even though schools were expanded after urban expansion and the farmer's children were accessed education in their community. The adults of the farmer's households were not able to read and write. Therefore, government and NGOs have to support adult education.

Regarding urban expansion impacts on the environmental health of the farming community. Government bodies should work on waste management of the surrounding rural community. Especially soil wastes from the construction of housing should be controlled during dumping or proper soil management should be implied. The rural community should participate in cleaning their environment wastes.

Moreover, since environmental problems affected the farmers household health through air pollution, water contamination, noise and overcrowding etc government and NGOs should give attention on farmers household health with providing health education and sanitation keeping

materials for households to prevent them from transmitted diseases such as tuberculosis and measles etc.

To save the number of farmer's livestock, government and private organization should provide livestock food to replace the grazing land available before urban expansion. In the case of water service even though urban expansion surrounding the rural community of the study area provided access to water for some of them, about half of the sample households couldn't access water service. Therefore, Government and NGOs should expand pipe water to each of the farmer's households

Regarding Job opportunities government should expand job opportunities through micro and small scale enterprises and cooperative work associations. NGOs should also created job opportunities through housing development project in construction sectors. The rural community should adapt and be trained an urban job opportunities to get out from depending on farming activities alone.

To encourage the farmers to be involved in job governments provided them through cooperative association the time required to complete the process in accessing revolving funds and credit services should not take a long time. In addition, access to the market for the products of the farmers should be facilitated. The community has to change their mind about the revolving fund and credit service because some of them are not allowed to take the fund since they think the credit and the revolving fund as debit.

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Questionnaire
Addis Ababa University
College of Social Science
Department of Sociology

Questionnaire for Households

Dear participants:

The main purpose of this questionnaire is to gather some relevant information for the MA thesis research entitled "Urban expansion and the changing socio economic life of the surrounding rural community of Addis Ababa Administration, Lamikura sub city Woreda03". Therefore, the researcher expect you to provide genuine, accurate and balanced information with respect to effects of urban expansion on the change in socioeconomic life of the surrounding rural community of Addis Ababa ,Lamikura sub city woreda 03" Your honest information is highly important as it plays a key role in the success of this study. Finally, the researcher is very much appreciative for the dedication you pay to this end and the information gathered will be highly confidential and only will use for the purpose of this research.

Thank you in advance

Instruction 1: Please put x mark in front of alternative box ,give appropriate information for blank space and circle for alternative letters statements below.

Part 1. Demographic study of the Participants.

1/ Sex 1/ M 2/ F

2/ Age -----

3/ Educational Background

1/ Illiterate 2/ 1-4 3/ 5-8 4/ 9-12 5/ technical school 6/ diploma 7/ degree.

4/ Marital status 1/ Married 2/ Divorced 3/ separated 4/ widowed

5/ Job condition 1/ self employed 2/ Private organization 3/ Government work 4/ Daily laborer

5/ unemployed

6/ Household size -----

Part 2. The impacts of urban expansion on FHHs housing

7. What was your housing type before the urban expansion? 1/Bricks 2/Mud 3/Hut

8. Your current type of housing 1/Bricks 2/Mud 3/Hut

9. How many rooms had in your house before the urban expansion? -----

10. How many rooms have in your current housing? -----

Part 3. Impacts of urban expansion on FHHs social service

11. Do you access pipe water at your home? 1/ Yes 2/No

12. Do you access the electric city at your home? 1/ Yes 2/No

13. Do you access the telephone at your home? 1/Yes 2/ No

14. Do you access health insurance? 1/ Yes 2/ No

15. Do you access health education? 1/ Yes 2/ No

Part 4. Impacts of urban expansion on environmental and household health

16. Do you face water contamination after urban expansion? 1/Yes 2/No

17. Do you face noise after urban expansion? 1/ Yes 2/ No

18. Do you face air pollution after urban expansion? 1/Yes 2/No

19. Do you face crowded living? 1/ Yes 2/ No

20. Do you face malaria after urban expansion? 1/Yes 2/No

21. Do you face typhoid after urban expansion? 1/Yes 2/No

23. Do you face depression after urban expansion? 1/ Yes 2/ No

24. Which health facility does expand in your community after urban expansion?

1/clinic 2/ Hospital 3/ Pharmacy 4/health post

Part 4 Impacts of urban expansion on farmers' social relationship

25. Which social organization declined after urban expansion?

1/ Edir 2/Equib 3/ Coffee drinking ceremony with neighbours 4/ 'Debo' culture

Part 5 Impacts of urban expansion on farmers land and livestock

26. Before urban expansion the amount of farming land -----Grazing land-----Forest land ---

27. After urban expansion the amount of farming land -----Grazing land-----Forest land---

28. Before urban expansion the amount of cow-----Oxen-----Sheep-----Donkey-----Goat-----

29. After urban expansion the amount of cow-----Oxen-----Sheep-----Donkey-----Goat---

Part 6/ Impacts of urban expansion on education

30/ Do you have household members attending school? 1/Yes 2/No.

31/ Do you have household members dropping school? 1/Yes 2/No

32/Do you have an illiterate household members ? 1/ Yes 2/No

33. Afterurban expansion in which school-level your family household members attended?

1/ kindergarten 2/primary 3/secondary 4/college or university

Part 7. Impacts of urban expansion on Job opportunities

34/ Income sources of farmers householdsafter urban expansion 1/ Farming 2/Government work

3/ Trading 4/ construction 5/urban agriculture 6/Manufacturing 7/Service

35/ Job opportunities in Urban agriculture 1/ Cow breeding 2/Hen breeding 3/Ox fattening 4/crop production 5/Vegetable cultivation 6/Green Plant development

36/ Job opportunities in trading 1/shop 2/Vegetable and fruits sales 3/Construction material supplies 4/ Cosmetics trading 5/ please specify if others -----

37/ Job opportunities in construction 1/General contractor 2/ water and electric maintenance 3/building contractor 4/if other please specify -----

38/ Job opportunities in service sector 1/Soil digging and cleaning 2/ Soil dumping 3/Café and restaurant 4/Daily labourer 5/if other please specify -----

39/ Job opportunities in manufacturing sectors 1/Cake and bread manufacturing 2/ Garment 3/Metal work 4/Wood work 5/Bricks manufacturing 6/if other please specify -----

Part 9 FHHs satisfaction on impacts of urban expansion

| No | Indicators | V.high | High | Moderate | Low | Dissatisfied | No answer |
|----|----------------------|--------|------|----------|-----|--------------|-----------|
| 40 | Housing habitability | | | | | | |
| 41 | Water service | | | | | | |
| 42 | Electric | | | | | | |
| 43 | Education | | | | | | |
| 44 | Health service | | | | | | |
| 45 | Job opportunities | | | | | | |

1=Very high 2=high 3=moderate 4=low 5=dissatisfied 6=No answer

Part 10 FHHs attitude and perception on effects of urban expansion.

| No | The attitude of farmers households towards the effect of urban expansion | Bad | Good | Better | Best | Worst |
|----|--|-----|------|--------|------|-------|
| 46 |on development of road | | | | | |
| 47 |on development of education services | | | | | |
| 48 |on development of health services | | | | | |
| 49 | on social relation | | | | | |
| 50 | on land resource | | | | | |
| 51 | on livestock resource | | | | | |
| 52 |on job opportunities | | | | | |

1=Bad 2=Good 3=Better 4=Best 5.Worst

53. Urban development is:-

- 1/ the change in road development
- 2/ the change in health service
- 3/ the change in educational service
- 4/ the change in technology
- 5/the change in population

Qualitative Method of Data collection

In depth interview guide

- Effects of urban expansion on livelihood strategy of FHHs
- Effects of urban expansion on social relationships of FHHs
- Effects of urban expansion on social services for FHHs/community
- Effects of urban expansion on the attitude and perception of farmers

Focus group discussion guide

- Discuss what urban expansion is for your community your community
- Discuss the effects of urban expansion on job opportunities in your community
- Discuss the effects of urban expansion on education in your community
- Discuss the effects of urban expansion on health service your community
- Discuss the effects of urban expansion on housing your community
- Discuss the effects of urban expansion on the infrastructure of your community

Observation

- Observing FHHs change in housing after urban expansion
- Observing environmental impacts urban expansion
- Observing the changes in job opportunities of the community
- Observing the land resource of the community