2022-02

The Effect of Urban Expansion on Land Rights And Livelihood of Peri-Urban Farmers: The Case of Dil Yibza Town, North Gondar, Amhara Region, Ethiopia

Belay, Bera

BAHIR DAR UNIVERSITY

INSTITUTE OF LAND ADMINISTRATION

DEPARTMENT OF LAND ADMINISTRATION AND MANAGEMENT

THE EFFECT OF URBAN EXPANSION ON LAND RIGHTS AND LIVELIHOOD OF PERI-URBAN FARMERS: THE CASE OF DIL-YIBZA TOWN, NORTH GONDAR, AMHARA REGION, ETHIOPIA.

BY

BERA BELAY ALEMU

FEBURARY, 2022

BAHIR DAR, ETHIOPIA

BAHIR DAR UNIVERSITY

INSTITUTE OF LAND ADMINISTRATION

DEPARTMENT OF LAND ADMINISTRATION AND MANAGEMENT,

THE EFFECT OF URBAN EXPANSION ON LAND RIGHTS AND LIVELIHOOD OF PERI-URBAN FARMERS: THE CASE OF DIL-YIBZA TOWN, NORTH GONDAR, AMHARA REGION, ETHIOPIA.

BY

BERA BELAY ALEMU

A THESIS SUBMITTED TO THE INSTITUTE OF LAND ADMINISTRATION IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTER OF SCIENCE (MSc) IN LAND ADMINISTRATION AND MANAGEMENT

ADVISOR - TADESSE AMSALU (PhD)

FEBRUARY, 2022

BAHIR DAR, ETHIOPIA

Declaration

Hereby, I declared that this thesis is an original effort carried out by me and has never been submitted to for any other institution to get any other degree or certificates, and all sources of data for this investigation have been properly acknowledged.

Bera Belay Alemu	----------	----------
Declarer's Name	Signature	Date

Bahir Dar University

Institute of Land Administration

Graduate Program

Approval of thesis for defense

I hereby certify that I have supervised, read, and evaluated this dissertation entitled "The effect of Urban Expansion on Land Right and Livelihood of Peri-urban Farmers: The Case of Dil-Yibza Town, North Gondar, Amhara Region, Ethiopia". by Bera Belay Alemu prepared under my guidance. I recommend that the thesis be submitted for oral defense.

_____	_____	_____
Advisor's name	Signature	Date
_____	_____	_____
Department Head	Signature	Date

Bahir Dar University

Institute of Land Administration

Graduate Program

Approval of thesis for defense Result

As the membership of the board of examiners, we examined this thesis entitled "The effect of Urban Expansion on Land Right and Livelihood of Peri-urban Farmers: The Case of Dil-Yibza Town, North Gondar, Amhara Region, Ethiopia". by Bera Belay Alemu. We herewith confirm that the thesis is putative for satisfying the requirements for the honor of the degree of Master in Department of Land Administration and Management, Bahir Dar University.

Board of Examiners

External examiner's name	Signature	Date
_____	_____	_____
Internal examiner's name	Signature	Date
_____	_____	_____
Chairperson's name	Signature	Date
_____	_____	_____

Abstract

Urbanization in Ethiopia is growing at a fast rate and the same phenomenon is observed in the Amhara region. Despite the efforts made to enhance urban expansion by the government issues related to the land rights and livelihood of farmers losing their land due to urban expansion are over looked. This research therefore examines the effect of urbanization on land rights and livelihood of peri-urban farmers in Dil-Yibza town. To address the objective of the study used mixed research method and data was collected by using instruments such as questionnaires, conducting key informant interviews, focus group discussions (FGDs) and field observation. Landsat image of the three consecutive periodic years was used to examine the trends in land use land cover change (LULC) of the town. The data were subject to both descriptive and inferential techniques of data analysis. The result revealed that if the current level of urban expansion continues about 166.48 ha of farming land will be converted into the urban built-up area and a minimum of 432 peri-urban farmers of Dil-Yibza town will be displaced in the coming ten years. Urban expansion has significantly affected peri-urban farmers' land use right. Generally, the results signaled that there was limited or no legal and institutional support for expropriated farmers in the study area. Whereas the rapid conversion of agricultural land to urban setting was considered as a success observing the land rights of farm households during expropriation and the absence of legal and institutional support to produce sustainable livelihoods for peri-urban farmers has remained unanswered challenge. Hence, it is recommended that displaced farmers in Dil-Yibza town should be supported by responsible bodies to formulate business plans and provide them with technical support to make their economic activities profitable and sustainable.

Keywords: *Expropriation, Land right, Livelihood, Peri-urban area, Urbanization*

Table of Contents

List of Tables

List of Figures

List of Appendices

Acronyms

ANRS	Amhara National Regional State
BDU	Bahir-Dar University
BoRLAU	Rural Land Administration and Use Bureau
COVID-19	Corona Vires Disease 2019
CSA	Central Statistical Agency
DFID	Department for International Development
ETB	Ethiopian Birr
FDRE	Federal Democratic Republic of Ethiopia
FGD	Focus Group Discussion
GIS	Geographic Information System
HHGPS	Hand-Held Global Positioning System
HHR	House Hold Respondents
LULC	Land Use Land Cover
LULCC	Land Use Land Cover Change
MSE	Micro and Small Enterprise
NGO	Non- Governmental Organization
SLS	Sustainable Livelihood Strategy
SPSS	Statistical data Package for Social Science Students
TVET	Technical and Vocational Education and Training
UN	United Nations
USA	United States of America

Explanatory Notes of Ethiopian Words/Terms

Kebele: the smallest unit of administration next to Ketena (Amharic).

Ketena: the smallest unit of administration (Amharic).

Fitawrary: Ethiopian military leader title in ancient time.

Chika-bet: houses constructed of wood and plastered with mud.

Ermija: the traditional measurement of land by walking on foot.

Timad: the traditional measurement of land with plowing on a day by oxen.

Acknowledgment

Before all, thanks “God and his sentries!!” Next, I would like to express my unlimited thanks to my advisor, Dr. Tadesse Amsalu, who had made professional advice and critical comments, in the course of the research and completion of the thesis write-up.

I also have unlimited thanks to Abeba Haddis who contributed invaluable advice and comments to my thesis from the step of inception up to the completion of this MSc thesis research work.

My family, spatially my brother Wubie Belay, has been the encouraging and inspiring factor for my performance in the whole process. My wife Askal Misganaw, I’m very much grateful for your unreserved support during my study.

Furthermore, I’m very much grateful to Dil-Yibza town municipality and its directorate Meketaw Adelalie, Mihiret Asmare, Gebrehiot Belayneh, Aregash Mazengia, Kelilew Mengstie, Mihret Tesfaye, Moges Sibuh, and other not listed intimate friends, for all facilities, supports, and praises they offered to my research work and for all the humorous events we had together.

Chapter One

1. Introduction

1.1 Background of the Study

The way of urban expansion is a worldwide phenomenon that ventilated within the history of urban centers and it begins within the earlier time of the human civilization of Babylonians (Cermea, 1997). Urbanization is defined as the method of urban growth involving both horizontal and vertical enlargement of the regional structure of urban settlements. It leads to the removal of farmland, natural attractiveness rangelands, and real-life and back grounds (Minwuyelet, 2004).

Moreover, the term "urbanization" is employed here to refer exactly to an upsurge within the proportion of a country population residing in urban settlements, whereas "urban growth" refers to a rise within the absolute size of a country or region's urban population (Bloch and Monroy, 2015).

Ethiopia was the smallest amount urbanized country even by African standards (Asmera, 2008). But one person in five could be a town dweller. However, the speed of the country's urban areas is growing among the very best in Africa, several social, economic, and environmental problems are evident within the urbanization development in Ethiopia and have been ignored for too long (Kebbede, 2017).

Ethiopian constitution art. 40(8) states that "Without prejudice to the right to private property, the government may expropriate private property for public purposes subject to payment in advance of compensation commensurate to the value of the property"; therefore, government establishments expropriate rural land especially peri-urban farmers are displaced due to urbanization for a public purpose by paying compensation.

A livelihood includes the capabilities, assets, and activities needed for a living. A living is a property once it was addressed passthrough stresses, and shocks, improve its capabilities and assets each currently and within the future, whereas not undermining the resource base (Hussein, 2002). Peri-urban areas are places where new property rights emerges and at the same time the existing traditional or customary rights may disappear or dissolve (Achamyeleh, 2017).

The chief challenge of the urbanization process is that the fast conversion of an oversized quantity of major agrarian land to urban land uses the largely residential construction within the peri-urban areas (Kassahun, 2018). The rapidly increasing urbanization is very much linked with increasing demand by urban dwellers for a plot of land for house construction. Likewise, land for infrastructure and industrial development is widely needed. Most municipalities are under serious pressure to avail the

required urban land; however, the required land is owned by farmers living in the peri-urban areas. The rising demand for urban land, therefore, tends to be happened mainly by changing peri-urban farming land at the fringe of the currently developed area (UN-Habitat, 2010, Toulmin, 2008). This condition is also common and current issue in the study area that creates a grievance between fringe communities and government officials. To ease the grievance of the urban dwellers the municipalities have to expropriate land. The dilemma in this process is that attempts to solve the urban demand affect the land rights and livelihood activities of the peri-urban farmers. This study, therefore, is aimed to assess the effects of urban expansion on the land right and livelihood activities of peri-urban farmers.

1.2 Statement of the Problem

Some researchers have conducted studies in different towns dealing with the issue of urban expansion and sub-urban communities' sustenance. For instance, Firew (2010) and Feyera (2005) conducted an analysis that assessed the horizontal urban growth and peripheral community livelihoods with nice attention to investigative the impressions of urban development. Additionally, Asmera (2008) also conducted about the level of urban expansion, by estimating the spatial and the temporal changes using land sat images. The above researchers and alternative authors surveyed on the connected problems between urbanization and livelihood only. They have not fully addressed the effect of urbanization on land right and livelihood activities of peri-urban farmers together.

On the other hand, Kassahun (2018) also viewed as the main challenge of the urbanization process is the rapid conversion of a large amount of prime agricultural land to urban land uses (mostly residential construction) in the peri-urban areas. As urbanization is an inevitable process what matters is how to handle the land right of farm households when they are expropriated their land so that they could continue sustainable livelihoods that satisfy their family needs. Realizing the land right of farmers affected by urban expansion requires institutional arrangements that could take care of issues associated with the land right and the livelihood options that could be picked up by farm households.

It is evident that the conversion of large amount of farm land to urban land leads to expropriating land held by farmers. However, urban planning and expansion fail to exhaustively make analysis of the land rights of the legitimate land users that will be displaced and the options they need to consider to make their livelihoods sustainable. Dil-Yibza town is a woreda town which covers relatively narrow areas and has small population but showing high urban expansion. So, any current issue that occurs in the urban movement should be given solutions at this level; otherwise, it will become huge. This study, therefore, aimed to assess the effects of urban expansion on the land right and livelihood activities of peri-urban farmers and indicate actions that should be taken by government authorities

and experts to enhance urban development while sustaining the land rights and livelihoods of peri-urban farmers.

1.3 Objectives of the Study

1.3.1 General objectives

The main objective of this research was to examine the effect of the urban expansion on land rights and the livelihood of peri-urban farmers in the Dil-Yibza town of the North Gondar zone.

1.3.2 Specific objectives

To meet the overall objectives, the following specific objectives were designed:

- To assess the trend of urban expansion in Dil-Yibza town.
- To investigate the process of how expropriation of peri-urban-rural land was carried out.
- To assess the livelihood activities pursued by expropriated peri-urban farmers.
- To investigate the effectiveness of the legal and institutional support provided to expropriated peri-urban farmers to benefit from their land rights and carry out sustainable livelihoods.

1.4 Research Questions

To meet the general and specific objectives of the study, the following research questions were formulated.

- How is the trend of urban expansion in Dil-Yibza town?
- How was expropriation of the peri-urban-rural land process carried out?
- What livelihood activities are pursued by expropriated peri-urban farmers?
- How effective has been the institutional support for expropriated peri-urban farmers to protect their land rights?

1.5 Significance of the Study

This study was aimed to examine the impact of an urban expansion on land rights and the livelihood of peri-urban farmers. It also accesses the future rate of urbanization and its consequence on the peri-urban farmers as well as it clearly states the trends of urbanization, the process of how an expropriation is carried out within the peri-urban area, livelihood activities, and the legal and institutional support for expropriated peri-urban farmers in Dil-Yibza town.

Dil-Yibza town is a Woreda town and relatively narrow. So, any current issue that occurs in the urban movement should be given solutions at this level; otherwise, it will become huge. If it is so, the future urban growth of smartness will be tough and become a slum. This study, therefore, helps to find

solutions for the peri-urban farmer's shocks and creates investment incentives for land lost people and it proposes solutions on how to rehabilitate displaced farmers. Policymakers will design reasonable approaches and motivate the expropriated framers to get engaged in alternative livelihood activities that could generate income for their families in the study area. It can also be used as a reference document for the town municipality and as reference material for university students.

1.6 Scope (Delimitation) of the Study

The research conducts in Dil-Yibza town of Beyada District locates around North Gondar, Semen Park, and Ras-Dejen Mountain of the Amhara regional state. The scope of the research focuses on giving highlight the impact of urban expansion on land rights and livelihood of peri-urban farmers and their opportunities to have access to food, secure land right, and other livelihood options, and also their interactions within their social and economic environment. In addition, attempts were made to explore the effectiveness of the secure land right and sustainable livelihood framework and institutional supports provided to enable expropriated households. The analysis of the data on many of the variables was designed to be quantitative and the conclusion centers on issues of vital factors that positively and negatively affected individual and institutional efforts to resolve the problems on land right shock and livelihood sustainability of farmers who lost their land in the study area.

1.7 Limitations of the Study

This study mainly focuses on the households whose lands were expropriated and those who had been dispossessed, dislocated, and hence whose livelihood strategies got changed both by form and content. Therefore, the researcher requires information from those farmers, land-related government employers, elders who are expected to have awareness about the trend, and other responsible bodies that have directly or indirectly responsibilities on urbanization and expropriation programs. However, following the current national issues such as the COVID-19 pandemic, and absences of peace in the study area created inconvenience to collect data in time from appropriate sources. Despite these fundamental problems' efforts were made to secure the required data although it took a long time.

Chapter Two

2. Review of Related Literature

2.1 Concepts of Urbanization

According to Bloch and Monroy (2015), the word urbanization and urban growth have different meanings. As authors differentiated, the term “urbanization” refers to explicitly an upsurge in the proportion of a country or region’s population existing in urban settlements, while “urban growth” refers to an increase in the absolute size of a region’s urban populace. The process of urban expansion is a global or international phenomenon, which occurred in the history of urban centers. It starts in the previous time of the human refinement of Babylonians (Cermea, 1997). Further, urbanization is the process of urban spatial flattening or growth; this involves the horizontal and vertical expansion of the areal structure of urban settlements. It results in the exclusion of farmland, natural attractiveness rangelands, and veritable life and sceneries (Minwuyelet, 2004). It is frequently used more insecurely, though, to discuss a wide transition of rural-to-urban including population, land usage, fiscal activity, and ethos, or any one of these. Thus, it is frequently used to discuss fluctuations in land use for specific areas usually on the margin of urban concentrations as this land becomes „urbanized“ and is vended and advanced for urban use (Poston and Bouvier, 2010).

There are no internationally agreed criteria to determine a boundary of urban areas from rural areas as evidenced by varied national urban definition summaries in the publication of the United Nations population division. Some researchers prefer to define urban depending on simple and standardized criteria like population size and density while others accepted but included some definitions with cases like commuters living beyond bound of dense settlement. More or less many countries designed urban as a settlement where administrative function types of economic activity's engagement of great population portion (Mcgranaham and Satterthwaite, 2004).

2.2 The Trend and Pattern of Urban Expansion

According to the UN state of the world population report (2007), former in the central of 2007, the middle-of-the-road of people in the world would be alive in towns for the first time in history. This is stated as the “arrival of the urban millennium” or the “tipping point” as depicted here below. Concerning trends, it is assessed that 93% of urban expansion would occur in rising nations with 80% of urban expansion happening in Asia and Africa. Through this process of development, the report state that, from what it was 30% in the 1950s, the urban population will be 70% by 2050, globally. Reversely, the rural population becomes 30% by 2050 from what it was 70% in 1950.

Ethiopia was the smallest amount urbanized country even by African standards (Asmera, 2008). But currently, “has one of the world's fastest-growing urban populations. The people residing in urban areas also increasing from 4-3 million in 1987 to 7-4 million in 1994, which is estimated to have already reached 10-6 million in the year 2003 and projected to reach 20 million by the year 2020” (Kassahun, 2018). (See Figure 2.1 below).

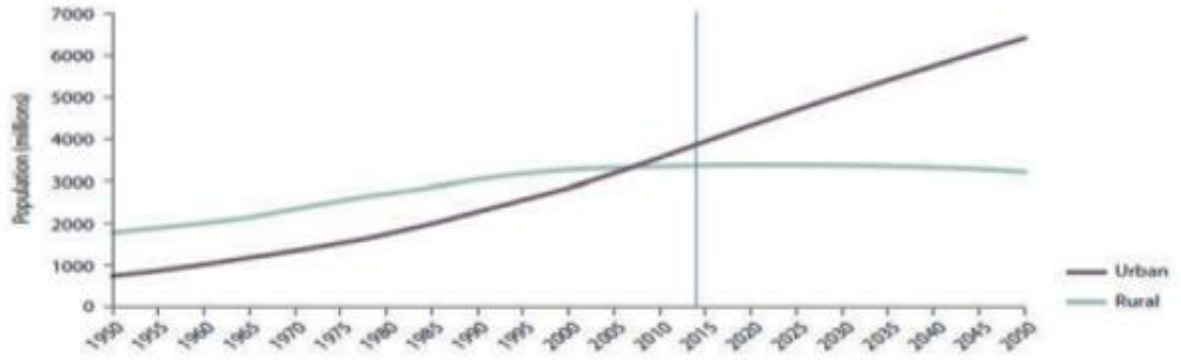


Figure 2.1: Ethiopian urbanization program projection and trend to 2050

Source: (Eastwood & Lipton, 2011), Cited by Kassahun (2018)

This is accompanied by increasing poverty, a high unemployment rate, low governance capacities, weak infrastructure, and poor municipal finance in cities. Nevertheless, Ethiopia’s urbanization is not only a challenge but is also an opportunity. It has enormous promise for the country's overall development: well-managed cities help to ease poverty through economic diversification and innovation, expanding markets, and the opportunity for urban-rural interconnections. Many social, economic, and environmental complications have partner urbanization in Ethiopia and have been overlooked for besides extended (Kebbede, 2017).

According to Firew (2010), the urban enlargement may be a cyclic development that resulted in dislocating rural agricultural communities within the perspective of population growth, absence of effective land-use management, irregular spreading of settlements into the fringe farmlands and rural communities is a common incident. Further, Zemenfes (2014) also viewed as urban population rapidly increases through migration from rural to urban or urban to urban resulted in the fringe farmlands and communities are becoming part of the urban expansion zones.

2.3 Urban Development Package

Based on the national urban development policy, the government has developed two packages. Urban Development Package and Urban Good Governance Package. As Kassahun & Tiwari (2012), this

package aimed to reduce unemployment and poverty through the creation of employment; to progress the volume of the construction industry through the creation of small enterprises; to improve the existing housing problems through the construction of houses; to promote built-up areas as machines of economic growth, and to improve urban social and economic infrastructure through the establishment of serviced land for housing.

Urban development package has five pillars: these were the development programs of micro and small enterprise, the development program of integrated housing, the development program of youth, the land, facilities, services and infrastructure of provision, and support for urban-urban and rural-urban linkages (Kassahun & Tiwari, 2012).

Urban good governance Package on the other hand, consists of institutional development, systems reforms, and capacity-building measures to promote the execution of good urban governance apply in urban centers to facilitate accelerated and sustained urban development. The bundle has seven sub-programs: land development and organization frameworks enhancement, urban infrastructure, and service improvement, public sharing, urban planning improvement, organization and human asset administration change, urban finance and financial management improvement, and equity change. Through these sub-programs, government and territorial government have given back to town within the frame of specialized help, capacity building, and preparing, and through the improvement and sanctioning of pertinent laws a decree. (Samson Kassahun and Alok Tiwari, 2012).

2.4 The Concept of Land Right

According to Ambaye, 2015, land rights are alluding to a set of lawfully ensured privileges or Benefits that radiate by being a proprietor of the land. They may moreover be alluded to as a bundle of rights or properties of proprietorship. Possession has not been characterized in Roman law or the French Respectful Code, which is the most source of the Ethiopian Respectful Code. The Romans were not concerned with hypothetical definitions, and as Johnston, in his book, Roman Law in Setting, commented, “The best approach seems to bargain with the most qualities of proprietary and from that permit the meaning of the term to emerge” (Johnston,1999).

2.5 Land Right and Expropriation in Ethiopia

In the history of land tenure or policy changes in Ethiopia, three periods are distinguished. These include the Imperial regime until 1974, the Dergue regime until 1991, and the EPDRF regime since 1991 (Berhanu and Feyera, 2005). Land tenure in Ethiopia has gone through many reformations over several millennia following the changes in governments and philosophies. Pre-1974 the imperial

system of government-supervised a feudal type of tenure which viewed all land as the legal property of the emperor and individual holdings or interests in land issued directly from the 'throne' (Frew, 2013). On the other hand, was interest granted by royal declare and in expansion to working out ownership control too entitled the holder, as a rule, an individual from the nobility to levy and collect national charges from the pilgrims. In 1974 the millennia-old royal framework was well-known in a military coup-with which set up a socialist-oriented government that came to be famously known as the Derg. The Derg nationalized land over the nation by declaring two distinct laws; Proclamation No. 31/1975 shifted the supervision of rustic land to farmer relations with the right to allocate land to occupants in their localities (Daniel, 2012).

Proclamation No. 47/1975 managed with urban land and the 'extra houses' issue by which proprietors of more than one house were made to yield all the additional units without reimbursement. These numerous property holders were allowed to possess and live in one house and, where they were involved in the commerce, to carry on the commerce in another. The proclamations limited the deal, trade, contract, gift, and exchange by legacy(inheritance). The FDRE government that substituted the Derg in 1991 presented far-reaching improvements to the somewhat extreme and Draconian provisions of the nationalization proclamations of a decade and a half earlier. (Hawaz, 2010).

In 1995, the new Constitution approved and confirmed state ownership of land: Article 40 of the constitution states "the right to ownership of rural and urban land, as well as of all-natural resources is exclusively vested in the state and the peoples of Ethiopia. specifically, Article 40/8 of the constitution retained government has the power of eminent domain to compulsorily expropriate property from owners if and when needed for public purpose subject, of course, to pay in advance of compensation commensurate to the value of the property. The land is a common property of the nations, nationalities, and peoples of Ethiopia" (FDRE, 1995).

However, Proclamation No.455(2005) on land expropriation and reimbursement to its effects give mechanism through which private holding to be taken and how-to reimbursement to be administered at the federal level; there are no directives as well as legal implements to these cases, and these caused negative effects to peri-urban farmers with the high superior decision of city municipality (Firew, 2010).

2.6 Urban Expansion and Land Right

According to Achamyeleh (2017), an urban expansion program specifically in Ethiopia at large seems not participatory and inclusive to all stakeholders in the peri-urban areas and peri-urban villagers have

been expected to assume some costs of urban expansion. It also appeared that local peri-urban proprietors were not well represented and involved in the process of land acquisition for urbanization. Furthermore, the usufruct rights of peri-urban farmers are expropriated by expropriators in the municipal administration, and develop infrastructure and leased to the new urban land holders (see Figure 2.2 below).

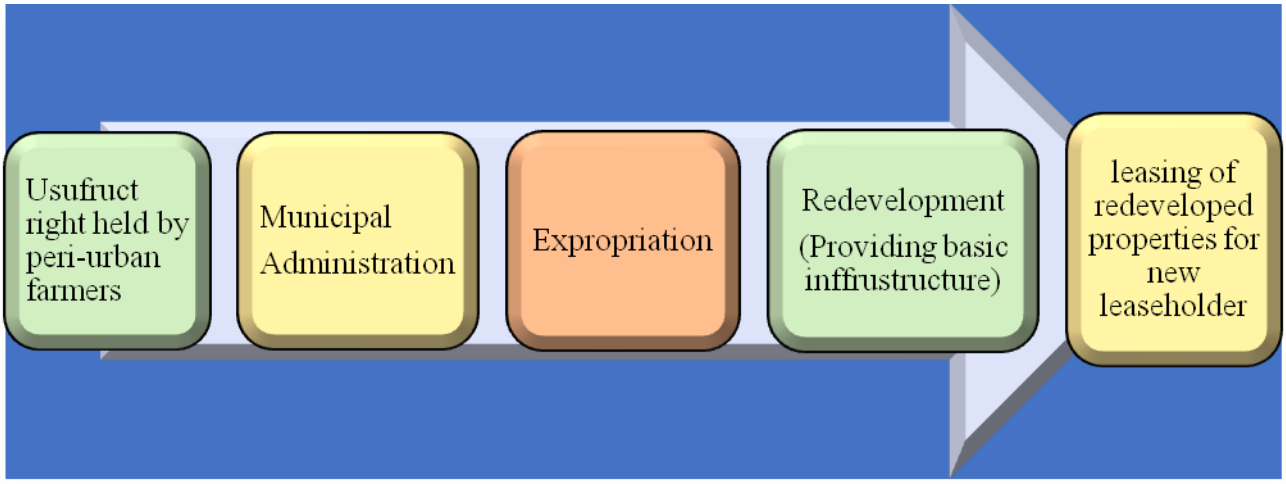


Figure 2.2: Flow chart of conversion of peri-urban land to urban land

Source: Achamyeleh G. 2017, April, 2021

2.7 The Concept of Livelihood

A livelihood comprises the capabilities, resources, and activities required for earnings of living. A livelihood is sustainable when it can adapt with and recoup from pressures and shock, reserve or improve its aptitudes and possessions, whereas not undermining the characteristic asset base. (Lasse 2001). According to Chambers and Conway, et al. (1992), The definition of "livelihood" is characterized as the compromise of capabilities, resources such as; stores, assets, claims as well as get to and exercises required for the implies of living. This can be maintainable which adapt up with and recuperate from stretch and shocks, keep up and improve its capabilities to supply way better job opportunity for the next generation that produces net benefits to other employment at neighborhood and worldwide in long and brief terms.

2.8 Urban Expansion and Livelihood

The world has seen phenomenal development in urban populaces since the conclusion of World War II. The attractions of the good life offered an irresistible magnet pulling large populations from rural areas. Of course, a considerable proportion of the increase was also accounted for by the high natural birth rate in most urban centers. The increasing population made demands on urban functions and

services including housing, factories, commerce, and other social amenities which in turn, put great pressure on cities to make land available for spatial growth. The overall urban populace of the world will increment from 3 billion in 2000 to 5 billion in 2030 which the full populace of urban zone within the creating nations will twofold over the same period (DFID, UK, 1999).

World Bank (2004) suggests that providing replacement land or cash compensation will be enough if the total land loss of the expropriated farmer is less than 20 percent of the total landholding. However, if the total land loss is more than 20 percent of the total land holding the type of compensation should include other rehabilitation packages in addition to the land replacement or the cash compensation. The World Bank adds that if more than 80 percent of the overall land holding is subject to confiscation the remaining 20 percent ought to moreover be compensated since it is not financially reasonable. Based on the above compensation and rehabilitation options different countries follow different support programs to improve the livelihood of their expropriated citizens. Some major rehabilitation support programs include land reallocation, alternative job creation, skill training, alternative housing, and social security provisions (McDowell and Morrell, 2012).

2.9 The Impact of Urbanization on Land Right and Livelihood

As activities develop, effects can include a dramatic increase and change in costs often pricing the local working class out of the market including such functionality as employees of the local municipalities (Tessema, 2017). Urban issues at the side framework advancements were moreover fueling suburbanization patterns in creating countries through the pattern for the core towns/cities inside nations tend to proceed to ended up ever denser (Glaeser& Steinberg, 2017).

Peri-urban zones encompassing the urban zones are characterized as one of the foremost defenseless geographic regions for the chance subjected to farmland misfortune within the extension of urban expansion that produces agriculturists lose job resources (Muluwork, 2014). Urban problems with structure developments are also fueling suburbanization trends in developing nations by the trends for core cities inside nations tend to continue to become ever denser (Glaeser& Steinberg, 2017).

Peri-urban areas surrounding the urban areas are characterized as one of the most vulnerable geographic areas for the risk subjected to farmland loss in the expansion of urbanization that makes farmers lose livelihood assets (Muluwork, 2014). The expansion of urban areas over natural resources and the agro-productive system has been a characteristic process that has resulted in the emergence of new landscapes with mixed urban and rural features (Satterthwaite et al., 2010).

2.10 Sustainable Livelihood Approach

A livelihood comprises the capabilities, assets, and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term (Chambers and Conway, 1992; Carney et al., 1998, 1999).

The various components of a livelihood, the most complex is the portfolio of assets out from which people construct their living. This portfolio includes tangible assets such as stores (e.g., food stocks, stores of value such as gold, jewelry, cash savings) and resources (e.g., land, water, trees, livestock, farm equipment), as well as intangible assets such as claims (i.e., demands and appeals which can be made for material, moral or other practical support) and access, which is the opportunity in practice to use a resource, store or service or to obtain information, material, technology, employment, food or income. The sustainable livelihood approaches were initially in the purpose to generate more understanding of rural households, but at present, are for studying livelihoods in urban as well as per urban areas (Singh and Gilman, 1999).

Livelihoods approaches are a way of considering almost the targets, scope, and need for upgrading. They put individuals and their needs at the center of advancement. They focus poverty decline intervention on enabling the destitute to construct on their openings, supporting their get to resources, and creating an empowering arrangement and organizational environment. In endeavors to apply this basis, sustainable livelihood approaches work at two levels acting as a by and large improvement objective and an expository device (Farrington et al., 2001).

2.11 Application of Sustainable Livelihood Framework

Sustainable livelihood frameworks have been applied and found the following useful key ways: firstly, supporting the systematic analysis of poverty and its causes, a holistic way hence more realistic but also manageable; secondly, promoting a broader and more informative view of opportunities to develop activities and their possible impact; ;thirdly, placing people and the priorities they define firmly at the center of analysis and goal-setting (Caroline Ashley and Diana Carney, 1999). The framework offers a way of assessing how organizations, policies, institutions, cultural norms shape livelihoods, both by determining who gains access to which type of asset, and defining what range of livelihood strategies are open and attractive to people (Carney, 1998).

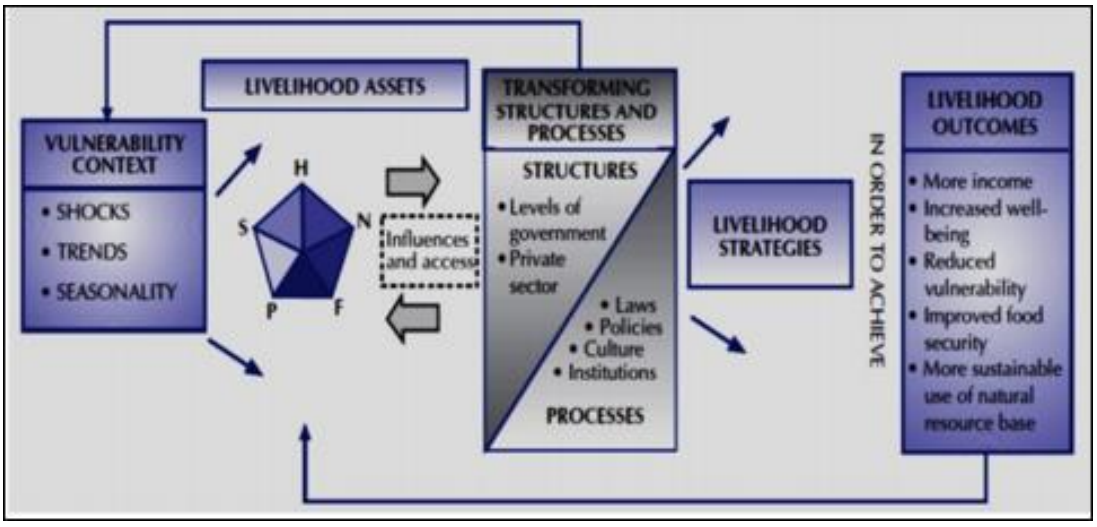


Figure 2.3: The DFID Sustainable Livelihood Framework for land lost farmers

Source: Krantz, 2001; April, 2021

There is only a little application in a peri-urban setting. For example, Tacoli (1998) examines rural--urban interactions and the sustainable rural livelihood framework, noting that the livelihoods of households in any location often include both rural and urban elements. DFID commissioned a study on poverty and the pre-urban interface to guide research in poverty-focused pre-urban natural resource management (Rakodi, 1999). Those who cannot take advantage of the opening displayed by urban markets incorporate the land was destitute, those who have inadequate capital to buy land and/or heightening generation, and avoided from credit and expansion frameworks (Tacoli, (1999).

2.12 Ethiopian Expropriation and Compensation Policy for Peri-urban Farmers

Expropriation: means the action of the government taking away private property from its owner with legal authority (Proclamation No. 455/2005). According to Firew (2010), the key element or condition of the accessibility of expropriation is the purpose of taking over private property. The basic criteria justifying admissibility of expropriation has been and still is the public purpose and public interest, (Proclamation, No. 455/2005, Firew, 2010).

Compensation: The owner whose rights are restricted under Art. 1518 or whose land is charged with a servitude shall be entitled to compensation. It may be in cash or kind. Art. 1319. Loa of thing. (1) The usufruct shall be extinguished by the loss of the thing to which it extends. (2) The usufruct shall extend to the equivalent value of the thing in the cue of its expropriation or requisition Art. 1460. And in addition to this, Compensation. (1) The owner whose land is crossed by pipes shall be entitled to compensation. (2) In fixing the amount of compensation, regard shall be had to the value of the land of

which the owner is permanently deprived. (3) Regard shall also be had to the inconvenience caused to an owner because of the installation and maintenance of the pipes (Ethiopian Civil Cod, Art. 1519). Every landholder who lost by law, as already indicated, the power of expropriation is vested in the government by the Constitution, which empowers the government to take private property for a public purpose with the payment of advance and commensurate compensation (Art.40(8) of the FDRE Constitution, 1995). The principal legislation on the question of expropriation is the Expropriation Proclamation whose central aim is to expropriate land for investment purposes (Land Expropriation Proclamation, 2005), (Unpublished).

According to Kaganova et al. (2006), there are two forms of compensation methods in land acquisitions; these are "land to land" and cash. Moreover, Proclamation No. 455/2005, clarified that compensation is a means of payment for the property that is expropriated by the respective executing body of government both either in cash or kind. The process of compensating for the evicted household should include all forms of asset ownership or use right among the affected population and provided a detailed strategy for partial or complete loss of assets. The agreement either of which to be served needs to be done through the collective bargaining of stakeholders. On the other hand, Articles 8(4)a and 8(5) of the proclamation 455/2005 stipulate compensation by the following formula: -

a) For urban property, compensation = RPC +RLC+SL+RLCR;

b) For Rural landholders, it is = RPC + RLC +10 * AAI or AAI +SLSP

Where, RPC stands for the Replacement Cost of Property; RLC stands for Relocation (moving) Cost; SL stands for Some Land site; RLCR stands for Relocation Compensation (cost of renting one year of place stay); AAI stands for Average Annual Income, and SLSP stands for Some Land with Similar Productivity; whereas, Regulation No. 472, (2020) of directives for evaluating the cost of properties permanently improved on the land during expropriation declares that the formula of compensation on each property would be:

- Building compensation = Current building cost + permanent improvement cost.
- Compensation for Fence = unit price of the fence in meter square/ meter cube * total size of the fence in, meter square /meter cube.
- Crop Compensation = (area per hectare * the current market value of the crop (per quintal * production per hectare in quintal) + cost of a permanent improvement on land.
- Compensation for Crop By-Product = (area per hectare * by-production per hectare per quintal * market price of by-product per quintal.

- Compensation for Ripe Perennial Crops = the yield of the Perennial crops from a single plant /leg in kilograms * the current price of the produce of the perennial crops * the number of plants/legs/ + cost incurred to grow perennial crops with current price + cost of a permanent improvement on land.
- Compensation for Unripe Perennial = number of plants (legs) * cost incurred to grow. An individual plant with current price + cost of permanent (a land improvement).
- Compensation value of a movable property = cos (of removal + cost of loading and offloading + cost of transport+ cost of installation and/or connection.
- Compensation of Fruitless Plant Tree = (large tree in number x local current price of one tree) + (medium tree in number x local current price of one tree) + (small tree in number x local current price of one tree it (number of seedling/unripe tree x local current price of one seedling unripe tree) + cost of a permanent improvement on land.
- Compensation of Grass = area coverage of the grass with meter square x the yield of grass with current local price per meter square + cost of a permanent improvement on land.

Proclamation No. 1161/2019, an art. 4/3 of the FDRE Negarit Gazette, the expropriation of landholding for a public purpose also declared that, the payment of the compensation, and the resettlement of displaced people proclamation. The main issue here is why not considering the level of fertility of the affected land.

2.13 Rehabilitation of Displaced Peri-urban Farmers

Rehabilitation is the process of removing or reducing as far as possible, the factor that limits the activity and the participation of a person with a disability so that he/she can attain and maintain the highest possible level of independence and quality of life: physically, mentally, socially and vocationally (Nairobi Conference, 2004).

Each of Ethiopian regional state approved different proclamations, directives, and regulations to minimize rehabilitation problems. For example, Amhara regional state of Proclamation No. 7/2010, art. 33(1) (unpublished) states that displaced farmers get priority to create enterprise land lost peoples with each other through lending money from bank to invest and get enough land by allotment; following Declaration No. 252/2009, art 18(1), every rural farmer has the right to use commonly with private enterprise by written contract to improve the land as kept landowners use right based on the land use plan and land lost farmers able to get priority to use a capital levy.

Chapter Three

3. Description of the Study Area and Research Methodology

3.1 Description of the Study Area

Location:

This study was carried out in Beyeda woreda and Beyeda is one of the woredas in the Amhara Region of Ethiopia. Located in the easternmost point of the Semen Gondar Zone. Beyeda is bordered in the south by the Shifru district Wag Hemra Zone, in the west by Jan Amora, in the north by Tselemt, and on the east by the Tekezé River which separates it from the Tigray Region. It is also close to Semen Mountains National Park and Mount Ras Dejen in North Gondar. The town is 418 km away from the capital city of Amhara National Regional state which is Bahir-Dar city. However, the study conducts in Dil-Yibza town, which is the capital town of the woreda. The absolute geographical location of Dil-Yibza town is extending from 13º 6' 30 " N to 13º 7' 30" N Latitude and 38º 25' 30" E to 38º 27' 30" E Longitude (see Figure 3.1 below). The average altitude of the study town is 3,852 meters above mean sea level (field survey by hand held GPS).

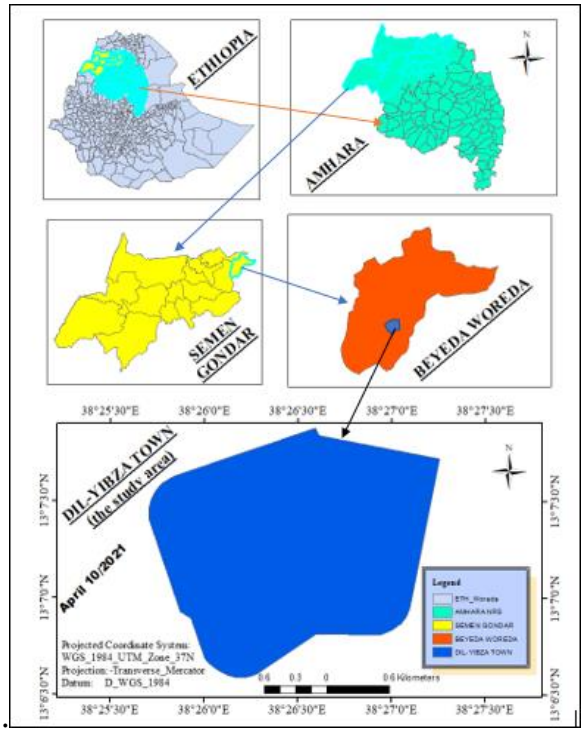


Figure 3.1: Location map of the study area

Source: Ethio-Gis Data, 2016, *April, 2021*

Physical Characteristics

The study area has boldened rocks, ignimbrites, and the tuff belonging to the Ras-Dejen Mountain ranges. The dominant soil groups of the study area are Orthic Nitosols, Cambsols, and Orthic Vertisol i.e., black, red soil, clay soil, and other types according to a local name. Generally, the town is covered by suitable soil types for construction but less suitable for various agricultural uses. The vegetation around the town is characterized by bushlands, numerous species of floras, scattered trees, eucalyptus, cultivated oil crops, and horticultural crops. Except for unsuitable areas like hills and /or marshy areas as well as the grassland and forests, the majority of the study area is covered with rain-based crops such as cereal, pulses, wheat, barley, beans, and oil crops. Even if, there is no water supply for irrigation the air condition of the study area is the most suitable communities to produce cabbages, carrots, potatoes, tomatoes, etc.

Climate

Dil-Yibza's climate is classified as sub-tropical or Dega. The study area has an average temperature of 20° centigrade, Pressure 1011 hPa/Mb, rainfall 758 mmHg, and wind speed of 2.75 m/s, and its demographic characteristics are mountainous. The summers here have a good deal of rainfall, while the winters have no/very little(https://en.wikipedia.org/wiki/Beyeda).

Demographic Characteristics

To study the effect of urbanization on land right and livelihood of peri-urban farmers, discussion of the demographic characteristics of the study areas was very important to know the area coverage, population density and to decide an adequate sample size. So Dil-Yibza town has relatively small area coverage, which is 212 hectare, and 9,534 total population also being lived, from these, 4,434 of the total population is male and 5,100 is Female (CSA, 2007); i.e., the total number of females are greater than males; which is 53.5% of the town population is females and the remaining 46.5% is male. Based on 2007 the national census had conducted by the Central Statistical Agency of Ethiopia (CSA), Amharic is spoken as a first language by 99.55%; the remaining 0.45% spoke all other primary languages were reported. In another expression, 99.55% of the population speaks only Amharic and the remaining 0.45% is heard and some of those speak languages other than Amharic such as Geez in Church, Tigrigna and Agawnga speak by youngest these migrate to neighbor districts or Zones. The majority was of the inhabitants practiced Ethiopian Orthodox Christianity, with 99.64% reporting that as their religion and the remaining 0.46% is Muslim. So, peri-urban farmers in the study area have economy, religious and other cultural activities homogeneity

3.1.1 Livelihood and Socioeconomic Characteristics

Economically, some Dil-Yibza town dwellers are engaged in small firms, small commercial activities such as the brewing of local drinks, governmental office employment, daily labor, farming, and other commercial activities. However, most of the urban fringe community's livelihood is based on farming. Due to inaccessibility, erratic rainfall, and the lack of the most basic infrastructure, in 1999 the regional government classified Beyeda woreda as one of its 47 droughts-prone and food insecure woredas (UNDP-EUE Report October, 1999).

3.1.2 Infrastructure in the Study Area

The town infrastructure such as road access, electric service, water supply, and telecommunication is not yet well-developed. It was only 10 years ago that the telecommunication infrastructure was established in the town. Other infrastructures such as road and electric or light service having been started in the last 5 and 2 years respectively. These infrastructures are still inadequate. For example, the town has a 1 km two-way asphalt road and electricity also gives light service for a limited time per day because the light is emanating from the generator. This has hampered people living in the town to perform their economic activities for a long period and many urban and peri-urban people migrate to other towns which have full infrastructure services. Moreover, in the study area, there are 2 primary and 1 secondary school and 1 Technical and Vocational Educational and Training (TVET)educational services, 1 health center, and 1 Ethiopian Commercial Bank, and 1 Amhara Credit and Saving Service (ACSS) money transaction services (field survey and observation, 2013).

3.2 Methodology

3.2.1 Selection of the Study Area

The study area, Dil-Yibza town, is an emerging urban center where the number of urban populations has been increased from time to time and this is leading to higher land demands for housing, public infrastructure development, recreation, etc. The town has three sub-kebeles or Ketenas namely Ketena-1 Lideta, Ketena-2 Gebreal, and Ketena-3 Giorgise. But I do not select the sample in each Ketena separately because each Ketena has no clear boundary and it was nominated early.

As a new and emerging urban center of Dil-Yibza town, there is still no researcher who has carried out development activities and particularly how the urban expansion is affecting the livelihood conditions and land rights of peri-urban farmers together. Currently, the observed urban development activities are being performed traditionally. Due to this reason, the researcher gave due attention to selects this

area and tries to investigate and examine issues related to the impact of urban expansion on land rights and livelihood of peri-urban farmers in Dil-yibza town.

3.2.2 Research Design

Research design explains and justifies the type and method of data collection, source of information, sampling strategy, and time-cost constraints (Saunders, Lewis & Thornhill, 2012). Therefore, the research design used in this study is a survey/cross-sectional research design because it describes the nature of existing conditions, and determining the relationship that exists between specific events and the data was observed at one point in a time. so that the views of the different stakeholders in the urban area could be gathered and analyzed. This approach helps to describe the characteristics of variables and at the same time to determine the challenges that significantly determine the adoption of land rights and livelihood of peri-urban farmers.

Regularly the qualification between qualitative and quantitative research surrounded in terms of utilizing words (subjective) instead of numbers (quantitative) or utilizing closed-ended questions (quantitative speculations) instead of open-ended questions (subjective meet questions) (John, 2014). So, in this research, a mixed research method is applied and both qualitative and quantitative data were secured.

3.2.3 Methods of Data Collection

Since the study primarily focused on evaluating the effect of urban expansion on land rights and livelihood of peri-urban farmers; it managed with comprehensive proof of future decades of urban expansion conditions based on the previous and current analytical evidence. The details on the source of data and data collection instruments and the sampling design are indicated in the following sections.

3.2.4 Source of Data

To attain the objective of the study used both primary and secondary sources of data. Sources of primary data were farmers in the per-urban settlement since they were prior issues considerable groups, the municipal experts as well as Bureau of Rural Land administration and Use (BoRLAU) since they know more of the urban expansion program, and performance of the expropriation related activities in the peri-urban areas. And also elders of the community were expected to know the previous history of the urban area and its surroundings.

On the other hand, this research has also used secondary data sources from all available reports of offices in the town administration, the municipality, the town development and the construction office, and BoRLAU, other related published and unpublished books, journals, and other documented data. In

addition, the land-sat images were used via downloading from the earth explorer to examine issues under the investigation.

3.2.5 Data Collection Instruments or Tools

The main data collection instruments used in this study are Focus Group Discussion (FGD), Key Informant Interview, Field Observation, and Questionnaire. The FGD respondents were selected from expropriated farmers, elders, and responsible government officials. The questionnaire was the other data collection tool distributed to sample households, and it included both close-ended and open-ended questions. These tools are supported by preparing guidelines or a checklist of structured and unstructured questions that were also prepared for the FGD and the Key Informant Interview. Likewise, a checklist of field observation points was also used to record the urban development activities, the current livelihood activities of displaced farmers; for example, displaced farmers who created new livelihood options as shops, hotels, and other small business and condition of urbanity.

In this research work, Land-sate Image plays an important role to compare the previous and the current as well as the future expectation of the level of urban expansion in the study area. In this regard to obtain relevant information on the urban landscape Arc GIS, Google Earth, the HH GPS, and SPSS tools were used. Three Landsat images were downloaded and these indicate the land use land cover of the study area in consecutive periodic decades such as 1991-2001, 2001-2011, and from 2011 up to the current year (2021) that was analyzed by Arc GIS 10.4.1. Arc GIS is also used to make the location map-making through identifying the country, region, zone, and district as well as the specific location of the study area in the Arc Map tool.

3.2.6 Sampling Techniques

Collecting data from all populations included in the study was too tiresome due to its great time, effort, and financial requirement. Then the selection of samples for the whole will need to minimize that tiresomeness. To balance the size of the representative population and reduce the problem of sampling error, both probability and non-probability sampling techniques were used in respect of the targeted population required for relevant information to issue investigation. Therefore, this research used a systematic random sampling technique to select affected household respondents because the farmer or community in peri-urban of the study area more or less share homogeneity of livelihood conditions and strategies.

A purposive non-random sampling technique was applied for FGD respondents who were selected from responsible bodies, actors of the urbanization program, and elders who have awareness about the

trend and condition of urbanization, land rights, and livelihood of the study area. Moreover, key informants were sampled by judgmental technique since the interview requires household heads to have timely events on occasions like; urban expansion trends, participation, livelihood condition, land right, and livelihood changes after urban expansion's influences in their life. So, elder household heads of the area, experts of the municipality as well as BoRLAU were purposely selected.

As the study deals with the investigation of the impact of urban expansion on land rights and livelihood of peri-urban farmers concerning the peri-urban areas of Dil-Yibza town. This is because those areas were a rural part of the district earlier to expansion, but the urbanity of the town gradually expanded and areas currently shifted to urban land uses rather than former features by inborn households. Due to this reason, this research will take sample respondents from the rural-urban transition of peri-urban households expropriated for expansion purposively or judged as the geographical scope of the study.

Moreover, to get appropriate information about the status of the town in the last decades and to give good analysis for the future urbanity use land sate images exposed from different years were very important. Therefore, as stated above this study was used the last three consecutive decades' land sat image from 1991-2001, 2001-2011, and 2011-2021 of the town via downloading from Google USGS. Earth Explorer (https://earthexplorer.usgs.gov/). Because the authors decided that, to make analyses on the trend of urbanization with the detection of LULC change of the study area's land sate images of the three consecutive decades were sufficient. The origins of the decade (1991) obtained by descendent counting from the paper performed year (2021).

3.2.7 Sample Size Determination/ Sampling Frame

The total population in the study area is the expropriated households in each cluster. But to get relevant information respondents other than expropriated such as government officials and elders of the urban were included (ibid-23). The target population in the study area includes peri-urban farmers who lost their land in the case of urbanization, responsible government officials and working on peri-urban lands related issues, experts of BoRLAU, Municipality, Town development of house and construction, Woreda councils, and Kebele land administration committees. In the study area, 276 peri-urban households lost their land for the urbanization program (reports from BoRLAU in each year), The affected respondents with their sex were segregating by four periodic years such as before 15 years, 10 years, 5 years, and 5 up to current years as shown in Table 3.1 below.

Table 3.1: Total No. of expropriated peri-urban farmers from 2006-2021

Years in GC	Before 2006	2006-2011	2011-2016	2016-2021	Sum Total
No. of male expropriated peri-urban farmers	22	30	34	62	140
No. of female expropriated peri-urban farmers	25	30	26	47	136
Total No. of expropriated peri-urban farmers	47	60	60	109	276

Source: Beyeda district BoRLAU, April, 2021

There were 276 total population that expropriated in each year but from those, there are farmers who were expropriated their land located in different places in the peri-urban area. i.e., one farmer has expropriated two or more land parcels in a different year. From this list of yearly expropriated populations, 30 male and 26 female total of 56 affected peri-urban farmers were omitted because of duplication. Therefore, as shown in Table 3.2 below the total population without duplicate expropriation was 220.

Table 3.2: Sampling frame of male and female expropriated peri-urban farmers from 2006-2021

Years in G.C	Before 2006	2006-2011	2011-2016	2016-2021	Sum Total
No. of male expropriated peri-urban farmers	22	27	28	43	120
No. of female expropriated peri-urban farmers	25	19	23	33	100
Total No. of expropriated peri-urban farmers	47	46	51	76	220

Source: Beyeda district BoRLAU, April, 2021

To calculate the adequate sample size from the total household heads in the study area, this research has used a standard statistical approach equation of Yamane (1967), approved from Israel (1992), systematically and the other responsible bodies for the discussion and the interview were selected purposely. The formula that we used for determining sample size is the following formula

So, $n = \frac{N}{1+N(e)2}$,..... Yamane's formula.

Where n=Sample size

N= Total number of expropriated peri-urban HHs

e =Estimated precision of data total household heads in the study area

"For the categorical dependent variable, 5% margin of error is acceptable, and for the continuous dependent variable, 3% margin of error is acceptable" (Krejcie & Morgan, 1970). Therefore, to determine the sample size, a 95% (0.05) level of confidence was used in these scientific determination

formulas. Therefore, the sample size in the study area is calculated following the above formula i.e. n = 220/1+220(0.05^2) gives 142 household head respondents. Hence, to make sure that 3% contingency was added that intended to reduce the effects of non-willing, non-founds (absents), non-responds and misses on the desired data sources. The sample size designated using systematic random sampling method in the n^{th} intermission = 220/142 = 2^{th} lengthways of the registered household heads in the study area.

The study carried out 10 FGDs participants including experts and elders. The participants were selected purposively those who expected to have awareness about the trend of the urban expansion program of Dil-Yibza town. These purposively selected FGD respondents were selected from the municipality directorate, head of land improvement and banking staff, surveyor and planer of the town, land marketing employer of the town, head of town development and construction office, BoRLAU directorate, head or employer of land valuation and expropriation staff, employers of rehabilitation of affected peri-urban farmers, woreda administration, assembly of Kebele land committees and elders who live in the town.

For the key informant interview, 4 participants were used of which 2 were responsible bodies who were expropriated peri-urban farmers from the municipality or bureau of rural land administration office and 2 of the respondents were elderly men who were considered to have deep knowledge about the town development. Generally, therefore, the total targeted population of the study area was, n = (0.03*142) +142+10+4 = 160 by adding the above list of target populations respectively

3.2.8 Method of Data Analysis and Presentations

This study used both descriptive and inferential statistical analysis systems. Because this study used a mixed form of qualitative and quantitative research the data analyses applied both quantitative and qualitative data analysis. The quantitative data employed descriptive statistics where the mean, standard deviations, and percentages were calculated and presented in Tables and Graphs. Some inferential statistics were also applied to evaluate relationships among variables and draw conclusions about the study population.

The qualitative data was first organized in thematic areas that are similar issues in one theme and based on the response collected the analysis was done and many of the findings were cross-checked against the results found in the questionnaire. Then, the outcome of the analysis in IBM SPSS version 26 software is accessible inform of tables, pie charts and bar graphs surveyed by a short-lived conversation based on results representing facts of Dil-Yibza town. That is triangulation was

performed to assess the similarity and divergences of responses. The land sat imageries were analyzed as per the protocol developed in the GIS system and the land use land cover changes were detected and the summarized process is shown in Figure 3.2 hereunder.

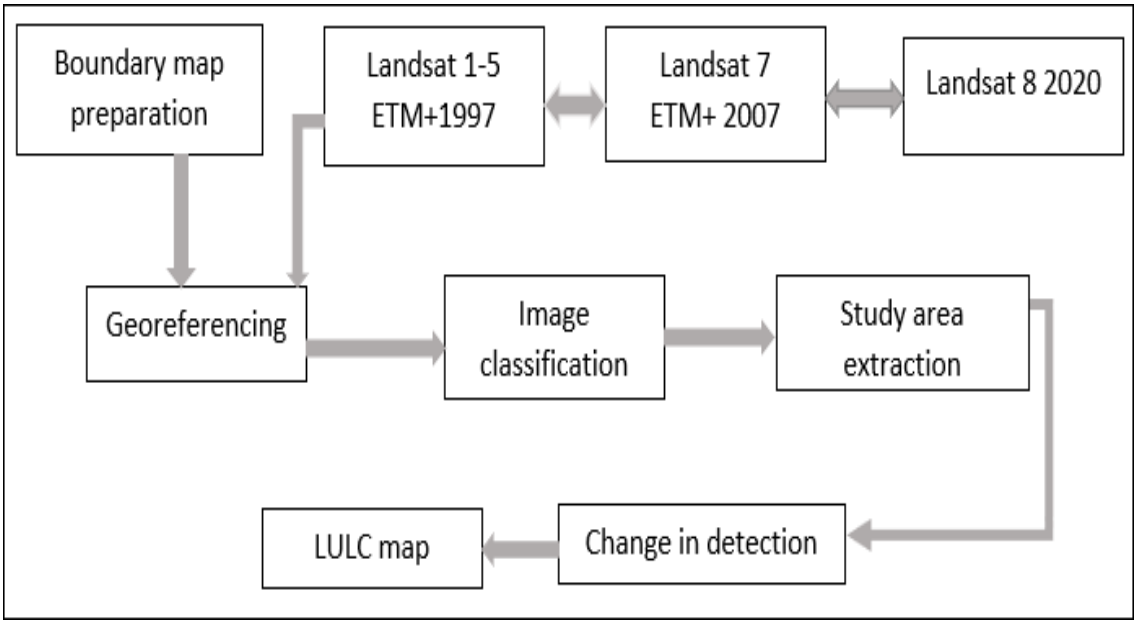


Figure 3.2: Flow chart of Gis and remote sensing data analysis

Source: accumulated by researcher, April, 2021

Chapter Four

4. Result and Discussion

4.1 General Background of Households Respondent (HHRs)

To obtain reliable information, the background of the households in the study area the background of the respondent sex, age, level of education, legal status, and family size were analyzed.

Sex, Age, and Education of HHRs

Although, the total number of females were greater than males (census, 2007), from the total respondents, 59.2% of the those were male and the remaining 40.8% of the respondents were females because respondents were selected randomly (Table 4.1). This indicates there are numerous female household farmers in the study area and the thesis considers both sexes.

Table 4.1: Sex of the respondents

Sex	Male	Female	Total
Frequency	84	58	142
%	59.2	40.8	100.0

Source: Household survey April, 2021

As shown in Table 4.2 below, about 1.4%, 19.0%, 26.6%, 31.0%, 22.5%, of respondents were aged 18-30, 31-40, 41-50, 51-60, and above 60 respectively. Most respondents have aged above 30 years; this indicates household respondents were matured and have awareness and experience about the condition of an urban expansion.

Table 4.2: Age of the respondents

Age group Alternatives	18-30	31-40	41-50	51-60	>60	total
Frequency	2	27	37	44	32	142
Percent	1.4	19	26.1	31.0	22.5	100

Source: Household survey April, 2021

The level of education of the respondent from the analysis Table 4.3 shows that 47.2% was illiterate, 40.1% read and write, 6.3% primary, 3.5% junior, 1.4% secondary, 0.7% tertiary, and 0.7% twelve (12) and above.

Table 4.3: Education level of the respondents

Alternative	Illiterate	Read and write	Primar	Junior	Seconda	Tertiar	>12	Total
Frequency	67	57	9	5	2	1	1	142
Percent	47.2	40.1	6.3	3.5	1.4	0.7	0.7	100

Source: Household survey April, 2021

This shows that most farmers were not been educated and only read and write; there are no literate farmers in the study area. In of terms marital status about 2.8% are single, 81.7% are married, and 15.5% divorce and this shows a stable society.

Family size of HHRs

As shown in Figure 4.1 below, the interval number in X-axis respondents the family size HHRs and the Y-axis represents the percent coverage of the family size. The national mean family size of the community is 5.6 (Firew, 2010). But as the perception of the HHRs, the survey result of the mean family size of the household heads in the study area is 3.16. Generally, 46.4% of the respondent's family size was above 8 and 26.75%, 23.24% and 3.52% of house hold respondents have the family size of 5-8, 3-5 and 1-3 respectively. This also specifies that most displaced household head has high family size requires high livelihood income because of high daily expenditure.

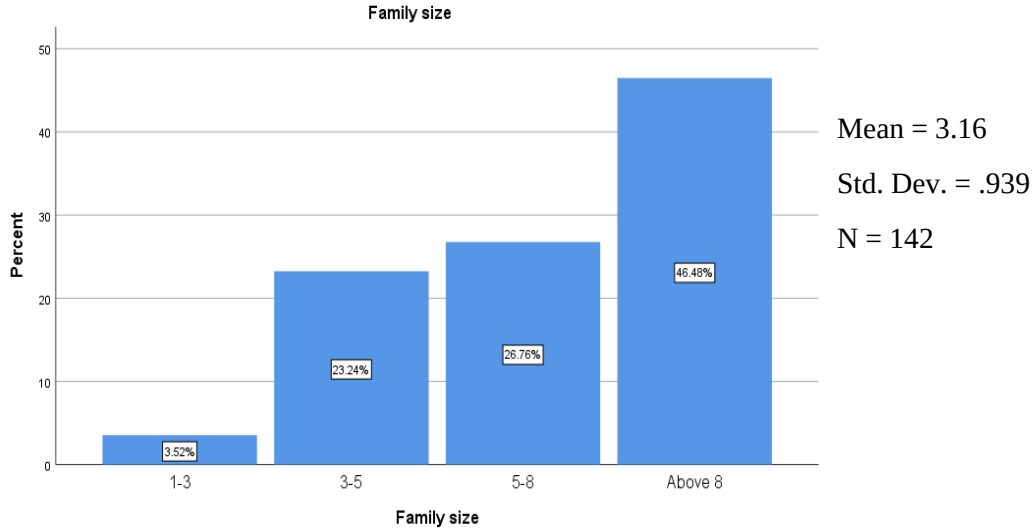


Figure 4.1: The family size of the respondents

Source: house hold survey April, 2021

4.2 Urbanization in Dil-Yibza Town

4.2.1 Empirical Study of Urbanization in the Study Area

According to elder respondents, Dil-Yibza town was established in 1969 by Fitawrary Marruf. Before 2000 most of the buildings were hut (houses covered by grass) (see Case 1 below). The level of the town expansion was very low for many years but after 2000, the population growth of the town became high, and the town begins expands rapidly. The establishment of government institutions and construction of road access from Debark to Dil-yibza played a vital role in these rapid expansions.

This rapid urban expansion is also associated with the allocation of urban land through tender and allotment as well as illegal land transactions including common land grabbing. The town got semi municipality status in 2008, Municipality status in 2013. The town was included within Wati kebele stile in 2018; after this year the town is named Dil-Yibza town. The urban setting is expanding in all corners of the town. The population of the town has a homogeneous economy, religion, and beliefs. Although the town expands in all directions from the center of the town, the interest of the dwellers was to the north-western part of the town following the main road.

Case 1: Histories and Trends of Urban Expansion

I am 85 years old. I live in Beyeda district around Dil-Yibza town. I lost farming land and got in-kind or alternative rural farming land compensation. The amount and fertility level of the former land and the current land having been the complementary but currently there is land fragmentation because the new land found distant area of neighboring kebele. This also difficult to supervised easily, to make fertile with animal muck, time and money wastages, eaten by animals, natural hazards such as winding, flood, wurch, ice rain, difficult to weeding, plow and collect in accordance with the season. Due to this reason I obliged to give for another farmer with sharecropping. Further, in alternative farm land compensation, properties that improved from the land such as terrace, tree planted, and so on had not been considered in the compensation. This and the like were a sever factors of declined my livelihood outcome. Historically, the town was established in 1869 by Fitawrary Maruf. From 1869-1920 there were at most 20 huts in the town. Then from 1921-1988 it was increased in to 80-100 huts. The number of hut houses at that time were less because the land was held by the farmer; after 1988 the land was reformed and the reformer decided land around the town should be free from individual holders and comes to state and common land. Since the town house were huts and informally and closely constructed, most huts of the town were dangerously damaged by fire in 1993-2000 repeatedly. To protect these damages the responsible bodies were taken as a solution far apart the huts each other and reallocate the owner to other land held by the state and give traditionally measured 40*30 Ermija = 300 m^2 for those holders. From 2000-2018 urbanization becomes raised since all farmers were volunteer to expropriate because the expropriation at the time were alternative exchange farm land and peri-urban farmers. After 2018 monetary compensation started in lease system for residential

association of urban Sprewell. Stile 2011 the trend of urban expansion in the tow was traditional land administration system, but currently there is some progression to modernized the town; but I have not participated in urbanization program **(My key information from elder urban dwellers, April 2021**).

4.2.2 Participation and agreement of peri-urban farmers in urbanization program

As shown in Table 4.4, 61.3% of the respondents agreed but 38.7% of the population did not agree. This reveals to us, the agreement between the land holder and expropriator during the urbanization program in Dil-Yibza town was not that much good. As respondent's perception, the disagreement of the farmer and the expropriator was the amount of compensation and the security of the land right.

Table 4.4: The agreement between landholders and expropriators

		Frequency	Percent	Cumulative Percent
Agreement between the landholder and expropriator	No	55	38.7	38.7
	Yes	87	61.3	100.0
	Total	142	100.0	

Source: Household survey, April, 2021

Girma (2011) clarified that, the expropriation of land for public uses should not only be resolute by the state but also with the local community program alarms. But, the participation of peri-urban farmers in Dil-Yibza town's urbanization program expropriation of land for public use mostly decided by the state; i.e., only 36.6% of the respondents have participated and the remaining 63.4% have not participated. Therefore, the participation of peri-urban households in the town was low (see Table 4.5 below).

Table 4.5: Participation of household farmers in urbanization program with the perception HHRs

		No	Yes	Total
Participation in urbanization program	Frequency	90	52	142
	Percent	63.4	36.6	100.0

Source: Household survey, April, 2021

Even if, no one had studied about level of urbanization in the study area, Kassahun (2018) indicated that Urbanization in Bahir Dar city has been in a state of rapid horizontal expansion. Similarly, regarding the level of expansion of the Dil-Yibza town, about 54.2% of the respondents agreed and 14.1% strongly agreed. On the contrary, 22.5% of the respondents disagreed and 9.2% strongly disagreed that there is a rapid urban expansion in Dil-Yibza town (see Table 4.6).

Table 4.6: The level of urban expansion with the perception HHRs

Alternatives	Strongly agree	Agree	Disagree	Strongly disagree	Total
Frequency	20	77	32	13	142
Percent	14.1	54.2	22.5	9.2	100.0

Source: Household survey, April, 2021

4.2.3 Factors affecting urbanization in the study area

Asmera (2008) viewed that, investment program implementation and geographical proximity were major factors affecting urbanization. On the contrary, in Dil-Yibza town's case, there is no investment program implementation and geographical factors is no affecting urbanization. As shown in Table 4.7, except for geographic factors all other items had a p-value less than 0.05. Therefore, the one-sample t-test of the variable results, statistical significance at 95% confidence interval and p-value < 0.05 disproved no difference assumption rather there is a statistically significant modification of the population growth, globalization, urban land policy, urban land development plan, and poor urban land management significantly affected urban expansion. On the other hand, Geographic factors did not significantly affect urbanization.

Table 4.7: One-Sample t-test for factors affecting urbanization

One-Sample Test

	Test Value = 0					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Population growth	22.016	141	.000	.775	.71	.84
Globalization	2.494	141	.014	.042	.01	.08
Urban land policy	5.622	141	.000	.183	.12	.25
Urban land development plan	3.441	141	.001	.077	.03	.12
Geographic factors	1.744	141	.083	.021	.00	.05
Poor urban land management	6.662	141	.000	.239	.17	.31

Source: Household survey, April, 2021

Regarding the population groups highly caused urbanization, the first and most inhabitants were immigrants resettled from the nearby towns while the second were came from surrounding woredas (Zemenfes, 2014). However, this paper also showed that of the total household respondents, 43.9% of household respondents agreed that the increment of the population of the town's population source is peoples who come from rural kebele. The next or the second population source is the high population

growth of the town itself which is 27.9% of respondents were assured. Furthermore, 17.0% and 11.3% of the respondents also voted as the remaining population also comes from other surrounding and immigrated from the closest town respectively (Table 4.8 below).

Table 4.8: The populations highly caused urbanization with the perception HHRs

Alternatives	Those come from rural kebeles	Those come from other surrounding whereas	High population growth of town itself	Immigrants from closer town	Total
#	129	50	82	33	294
%	43.9	17.0	27.9	11.3	100.0
Cases (%)	92.1	35.7	58.6	23.6	210

Source: Household survey, April, 2021

4.2.4 Infrastructure in the study area

All elder and household respondents assured that expropriator in Dil-Yibza town were only government officials. In the urbanization program, peri-urban farmers were expropriated for infrastructural services such as urban agriculture, condominium/real estate, residential association, private investment, road, health center, education, telecommunication, religious service, and so on. As a result of analysis of the study area, (Table 4.9 below) 58.5%, 2.1%, and 67.6% of the HHRs were that the purpose of the urbanization program in Dil-Yibza town was for an infrastructural service, urban agriculture, and a residential association respectively. Thuo (2013) viewed that, the conversion of agricultural land to urban land to be merely for residential purposes. In similar ways, the peri-urban farmers had in the study area lost their land for the residential association of urban dwellers and infrastructural services. This indicates that there were no private investors in the study area.

Table 4.9: Purposes of urban expansion program carried out with the perception HHRs

Items	For Infrastructural services		For urban agriculture		For condominium/ real-estate		For residential association		For private investment		Other	
	#	%	#	%	#	%	#	%	#	%	#	%
No	59	41.5	139	97.9	142	100.0	46	32.4	142	100	142	100
Yes	83	58.5	3	2.1	0	0	96	67.6	0	0	0	0
Total	142	100.0	142	100.0	142	100.0	142	100.0	142	100.0	142	100.0

Source: Household survey, April, 2021

4.2.5 Types of compensation paid for displaced peri-urban farmers

Several peri-urban farmers could be displaced in urbanization programs everywhere by compensation. according to Proclamation No. 455/2005, clarified that compensation is a means of payment for the

property that is expropriated by the respective executing body of government both either in cash or kind. Similarly, the displaced farmer also got compensation for lost properties and some other improvement on the land and their future interest in the land. In Dil-Yibza town, to displaced farmers during the expropriation, the compensation was monetary and exchange with land values which were paid in cash, in-kind, and both in cash and in-kind compensations.

As shown in Table 4.10 here under, about 42.3% of displaced peri-urban farmers gained land located in another surrounding, 40.1% of displaced farmers were paid in cash or money and 16.9% were compensated both in kind and in cash. The study also indicated that about 0.7% of the respondents were displaced without compensation. because the land owner contributed the land by voluntary to construct TVET collage services.

Table 4.10: Kinds of compensation paid for displaced farmers with the perception HHRs

Alternatives	Compensation in kind	Compensation in cash	Compensation both in cash and in-kind	Without compensation pay	Total
#	60	57	24	1	294
%	42.3	40.1	16.9	0.7	100.0

Source: Household survey, April, 2021

As respondents said, the compensation of expropriated peri-urban farmers before 2019 was in-kind compensation. But after 2019 monetary compensation has been started. Because, residential housing association was beginning during these times; before these years peri-urban farmers were displaced for different services such as health, education, recreation, government officials, and other religious services. Those farmers got alternative exchange land compensation that was held by dead people, government employers, and common or state lands. Farmers who got compensation both in cash and in-kind means not paid for one parcel instead they got compensation in kind for the land parcel that was lost before 2019 and got monetary or cash compensation after 2019 for the other parcel.

4.2.6 Condition of urbanity in Dil-Yibza town

The participation of peri-urban households in the town was less (see Table 4.5). Urbanization might be expanded through legally by act of government officials and illegally by land grabbing. As a result of HHRs perception, 4.9% of the respondents answered that Dil-Yibza town was expanding through illegal acts of land grabbing, 23.2% of the respondents thought the legal act of government official, and 71.8% of the respondents also answered that urbanization increased through both legal and illegal acts (Table 4.11 below). Therefore, Urbanization in Dil-Yibza town was enhanced through the legal act of government officials and the illegal act of land grabbing.

Table 4.11: ways of urban expansion in Dil-Yibza town with the perception HHRs

Alternatives	Through an illegal act of land grabbing	Through the legal act of the government official.	Both	Total
#	7	33	102	142
%	4.9	23.2	71.8	100.0

Source: Household survey, April, 2021

From these main high trends of urban expansion in study areas, the legal act of government officials offers residential and commercial land access for urban dwellers through tender and allotment. On the other hand, according to Table 4.12 below, peri-urban farmers and urban dwellers also constructed illegally on their farming land, purchasing farmland with money, exchange fringe farmland by rural farmland, and illegal land grabbing of common and state land 27.4%, 25.9% 24.4% 22.4% respectively. So, the result shows that all illegal land grabbing in the town has the same values.

Table 4.12: ways of illegal peri-urban construction raised with the perception HHRs

Alternatives	Illegal Construction on their farming land	Purchasing farmland with money	Exchange the peri-urban farmland by the rural farmland	Common and state land grabbing.	Total
#	93	88	83	76	340
%	27.4	25.9	24.4	22.4	100.0
Cases/%	67.9	64.2	60.6	55.5	248.2

Source: Household survey, April, 2021

4.2.7 The Action of Responsible Bodies for Illegal Construction

The government officials were not taking any remedy for the illegal constructions in the town. This means that 55.6% of respondents assumed that, the responsible bodies had demolished the illegally constructed houses without the compensation paid and the remaining 44.4% of the respondents also answered no demolishing of illegally constructed houses without paying the compensation. On the other alternatives, 5% of the respondents also assured illegally constructed houses were devastated with paid the compensation, 28.9% formalized illegally constructed houses, and 58.5% also government or responsible bodies were not taking a remedy (Table 4.13 below), i.e., the illegal houses are still intact and used.

According to responsible bodies, and urban expansion was due to both legal and illegal acts of peri-urban farmers as well as urban dwellers especially on agricultural lands around the town. To stop the illegality, actions were applied like organizing anti-illegal committees to stop the illegal expansion and

destruction of buildings and the like. Finally, the municipality takes a remedy to destroy the illegally constructed house.

Table 4.13: Actions taken by the government officials with the perception HHRs

Alternatives	Demolished the house without the compensation		Demolished the house with paid the compensation		Formalize the house had that constructed illegally.		No remedy	
	#	%	#	%	#	%	#	%
Yes	79	55.6	5	3.5	41	28.9	83	58.5
No	63	44.4	137	96.5	101	71.1	59	41.5
Total	142	100.0	142	100.0	142	100.0	142	100.0

Source: Household survey, April, 2021

4.3 Land Use Land Cover (LULC) in Dil-Yibza Town

Land cover is the most significant property of the earth's surface, determining its physical state and biotic component. Land use, on the other hand, is the alteration of land cover in response to human needs and behavior (Prakasam, 2010). The method of finding changes in the condition of an entity or phenomenon by observing it at various times is also known as land use land cover change (Singh, 1989). As a result, the land use and land cover in the study area were done by downloading Landsat images from the USGS website at http://earthexplorer.usgs.gov/over the last three conspiratorial decades, including Landsat 1-5 MSS (1997) from 1991 to 2001, Landsat 7 ETM+ (2007) from 2001 to 2011, and Landsat 8 (2020) from 2011 up to now. Coverage of the land use forms over a decade's worth of images, the pace of the change, and the accuracy evaluation from recent images was all extracted from the images processed for analysis; the procedure is clearly shown in Figure 4.2 hereunder.

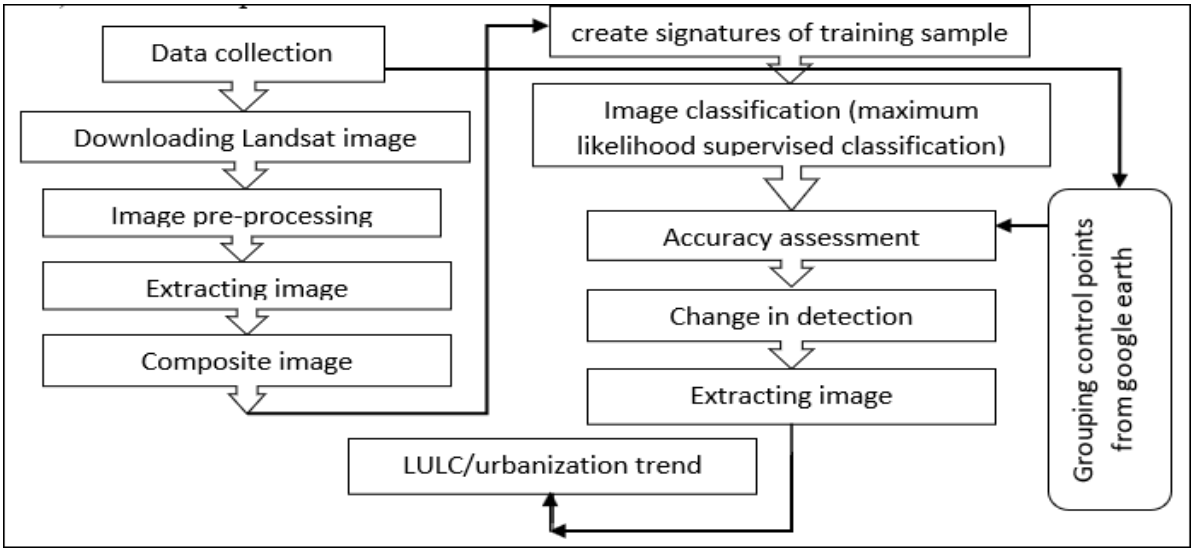


Figure 4.2: the flow chart of LULC change in Dil-Yibza town

Source: survey ArcGIS 10.4.1, April, 2021

To do so, I have classified the land use into five major classes such as agricultural land, bare land, built-up area, forest, and grass land. The description of each class is stated in the following Table 4.14 below.

Table 4.14: Description of land use land covers type in Dil-Yibza town.

No.	Land-use type	Description
1	Agriculture	Cultivated land, vegetables, fruit areas, and the like.
2	Bare land	Quarry sites, uncultivated fields, fenced areas, unbuilt-up protected areas based on town plan, and stony areas
3	Built-up land	Land that has been developed via Residence, infrastructure, and other features are all included.
4	Forest	Planted area, open agro-forestry like flower factories and related
5	Grassland	Grazing areas, swampy or marshy land, and moist areas along streams.

Source: LULC maps, ArcGIS 10.4.1, April, 2021

LULC in the First Decade (1991-2001)

These classified images were used to calculate the area coverage and percentage of land use and land cover categories over three years. as shown in Figure 4.3 and Table 4.15 below, agriculture, built-up area, bare land, forest, and grassland covered about 68%, 22.4%, 4.7%, 3.3%, and 1.51% of Dil-Yibza town respectively.

Moreover, at the time, 144 ha, 47.5 ha, 10 ha, 7 ha, and 3.5 ha of the town were shielded by agriculture, built-up area, bare land, forest, and grassland respectively. The total image classified cover of the town was 212 hectares. This indicates most areas of the town were covered by agriculture.

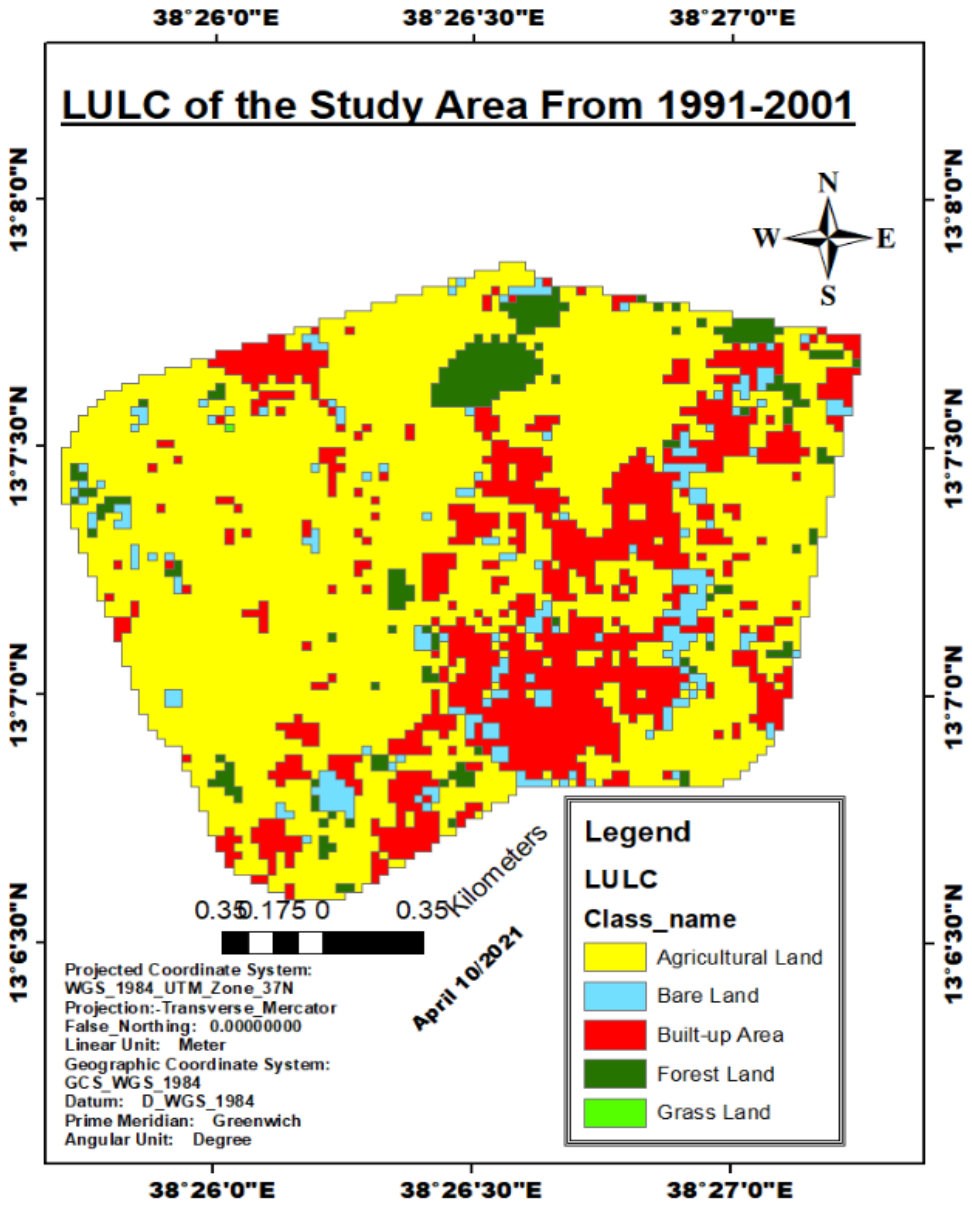
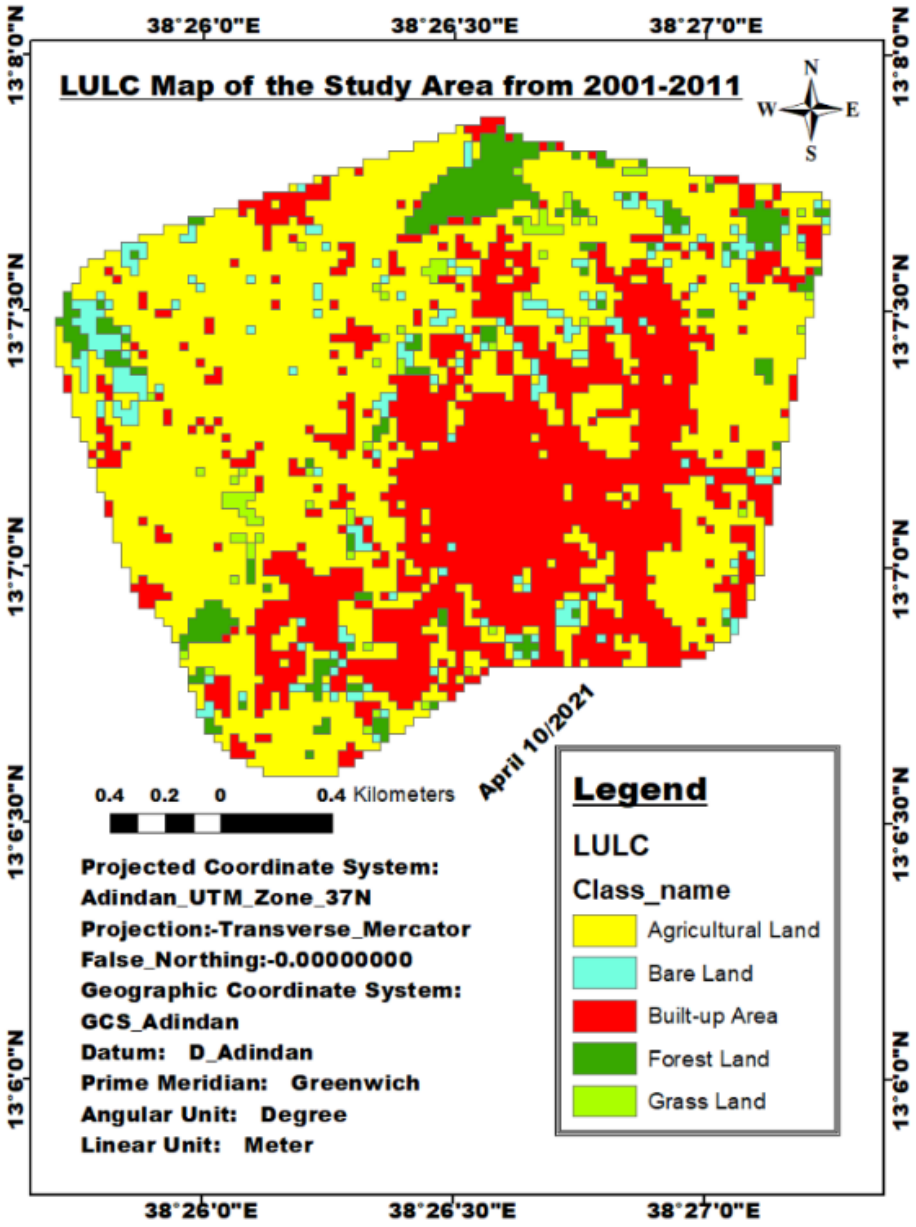


Figure 4.3: LULC map of Dil-Yibza town from 1991-2001,

Source: Landsat 1-5 MSS+ (1997) analysis via ArcMap10.4.1, in ArcGIS 2020, April, 2021

LULC in the Second Decade (2001-2011)

As shown in Figure 4.4 and Table 4.16 here side, about 56.13%, 34.9%, 4.24%, 3.77%, and 0.96% of eras were covered by agriculture, built-up area, bare land, forest, and grassland respectively.



Furthermore, 119 ha, 74 ha, 9 ha, 8 ha, and 2 ha of the town was covered by agriculture, built-up area, bare land, forest, and grassland respectively.

Figure 4.4: LULC map of Dil-Yibza town from 2001-2011

Source: Landsat 7 ETM+ (2007) analysis via ArcMap10.4.1, in ArcGIS 2020, April, 2021

LULC in the Third Decade (2001-2011)

The recent LULC alternate measured in case of location coverage and percentage indicates 43 ha, 8 ha, 154 ha, 6 ha, and 1 ha of the location coverage and 20.28%, 3.77%, 72.64%, 2.83%, and 0.47% of percentage coverage were included by way of agricultural land, bare land, built-up area, forest area, and grassland respectively (Figure 4.5) and (Table 4.17 below).

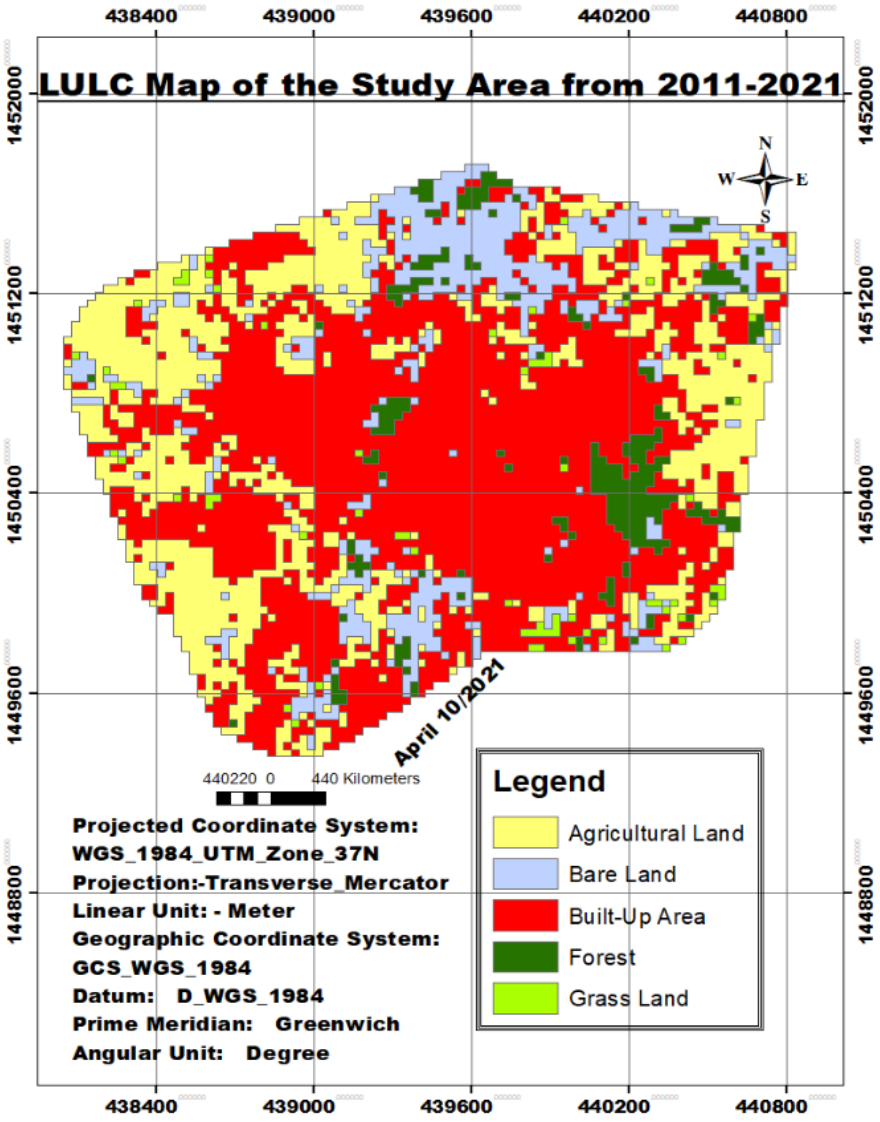


Figure 4.5: The LULC map of Dil-Yibza town from 2011-2021

Source: Landsat Image analysis of ArcMap10.4.1, in ArcGIS 2020, April, 2021

4.3.1 Sequential and Spatial LULCC in Dil-Yibza Town

LULCC from 1991 to 2011

There was a change in detection of land use land cover of the area in the two consecutive decades. The change value may be negative or positive.

$$\text{change in detection} = \frac{\text{area in the second decade} - \text{area in the first decade}}{\text{area in the first decade}} \times 100$$

For example, the change in detection of agricultural land in LULC of land sate1-5 MSS+ 1997 to land sate 7 ETM+ 2007 is calculated as follows.

$$\text{change in detection} = \frac{\text{area in } (2001 - 2011) - \text{area in } (1991 \text{ to } 2001)}{\text{area in } (1991 - 2001)} \times 100$$

$$Change\ in\ detaction\ of\ agricutural\ land\ from\ 1991-2011 = \frac{119-144}{144} \times 100$$

= -<u>17.36</u>

The change in detection of other major land-use classes showing in the following table was calculated following the above example. The negative value indicates that the land use land cover for agriculture decreased from 1991 to 2011. On the other hand, the positive value land-use class type indicates the increment of the area coverage from year to year. As shown in Table 4.15 below, in our area of interest forest land and built-up land have positive values and agricultural land, bare land, and grassland have negative values. Moreover, -25 ha (-17.36%), -1 ha (-10%), and -1.5 ha (-42.82%) indicated declining in agriculture, bare land, and grassland respectively. On the contrary, 26.5 ha (55.79%) and 1 ha (14.29%) is a sign of increased built-up area and forest area respectively.

Table 4.15: Change in the detection of LULC types change from 1991-2011

ID	LULC Type	LULC (1991-2001)		LULC (2001-2011)		LULC change (1991-2011)	
		Area(ha)	(%)	Area(ha)	(%)	Area(ha)	Detection (%)
1	Agriculture	144	68	119	56.13	-25	-17.36
2	Bare land	10	4.7	9	4.24	-1	-10
3	Built-up land	47.5	22.4	74	34.9	26.5	55.79
4	Forest	7	3.3	8	4.1	1	14.29
5	Grass land	3.5	1.51	2	0.96	-1.5	-42.82
Total		212	100	212	100	0	0

Source: Analysis in ArcGIS 2020, April, 2021

LULC from 2001 to 2021

Table 4.16: The LULC types change from 2001-2021

ID	LULC Type	LULC (2001-2011)		LULC (2011-2021)		LULC change (2001-	
		Area(ha)	(%)	Area(ha)	(%)	Area(ha)	Detections
1	Agriculture	119	56.13	43	20.29	-76	-63.87
2	Bare land	9	4.25	8	3.77	-1	-10
3	Built-up area	74	34.91	154	72.64	+80	108.11
4	Forest	8	3.77	6	2.83	-2	-25
5	Grass land	2	0.94	1	0.47	-1	-50
Total		212	100	212	100	0	0

Source: Analysis in ArcGIS 2020, April, 2021

The continued reduction of agricultural land, bare land, forest, and grassland was changed from 119 to 43 ha, 9 to 8 ha, 8 to 6 ha, and 2 to 1 ha. Therefore, the LULCC values are 76 ha, 1 ha, 2 ha, and 1 ha respectively (Table 4.16 above). On the other hand, land use type coverage for various built-up areas extending to agricultural-related in the periphery of the town. Accordingly, the change was increased

from 74 to 154 ha with the increment values of 80 ha of agricultural land is brought to the urban setting from 2001 to 2021. This situation is more visible in the northwestern part of the town where there is high construction of residential settlement and different production small scale industries followed.

LULCC from 1991 to 2021

As shown in Table 4.17 the spatial and temporal LULCC of the three sampled consecutive decades from 1991 to 2021, except built-up area the coverage of all other major land LULC type has decreased. I.e., agricultural land decreased from 144 ha to 43 ha, bare land from 10 ha to 8 ha, forest land from 7 to 6, and grassland from 3.5 to 1 ha showing a difference of -101 ha, -2 ha, -1 ha, and -2.5 ha respectively.

Table 4.17: The LULC types change from 1991-2021

ID	LULC Type	LULC (1991-2001)		LULC (2011-		LULCC (1991-2021)	
		Area(ha)	(%)	Area(ha	(%)	Area(ha)	(%)
1	Agriculture	144	68	43	20.29	-101	-70.14
2	Bare land	10	4.7	8	3.77	-2	-20
3	Built-up land	47.5	22.4	154	72.64	106.5	224.21
4	Forest	7	3.3	6	2.83	-1	-14.29
5	Grass land	3.5	1.51	1	0.47	-2.5	-71.43
Total		212	100	212	100	0	0

Source: Analysis in ArcGIS 2020, April, 2021

From here, agricultural land has very high negative detection values but the other land use type has less negative detection values. Inversely, the built-up area increased from 47.5 ha to 154 ha which is the difference of 106.5 ha and 224.21% area coverage increment. Therefore, the agricultural area of the town converted to the urban built-up area from time to time indicates peri-urban farmers had lost their land for the urbanization program.

In short, the land use land cover of all major class of land use types except the built-up area in Dil-Yibza town becomes decreased. The overall land use land cover change in the study area is summarised in Figure 4.6 below.

Almost, the area change of land use class in Dil-Yibza town was into Built-up or urbanized land, there was also the conversion of agricultural land to forest land (Figure 4.7) and another land-use class. From here, as the urban dwellers reasoned, the agriculture-forest conversion was to obtain the highest and best compensation during expropriation.

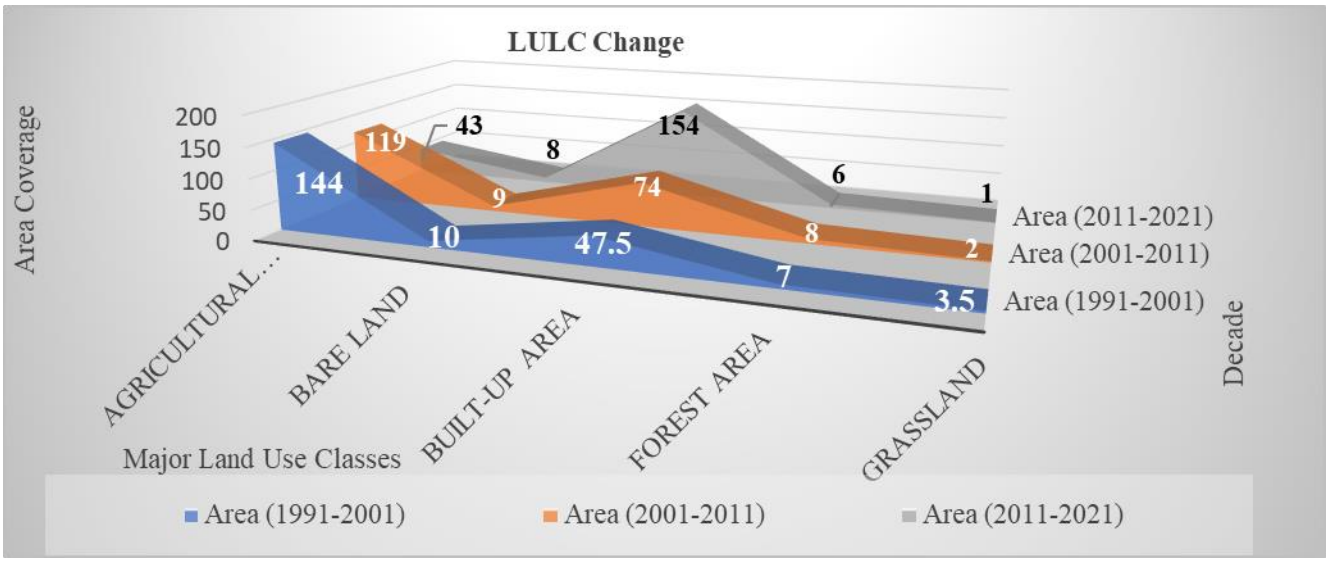


Figure 4.6: LULC change in each decade (1991-2001, 2001-2011, and 2011-2021)

Source: Analysis in ArcGIS 2020, April 2021

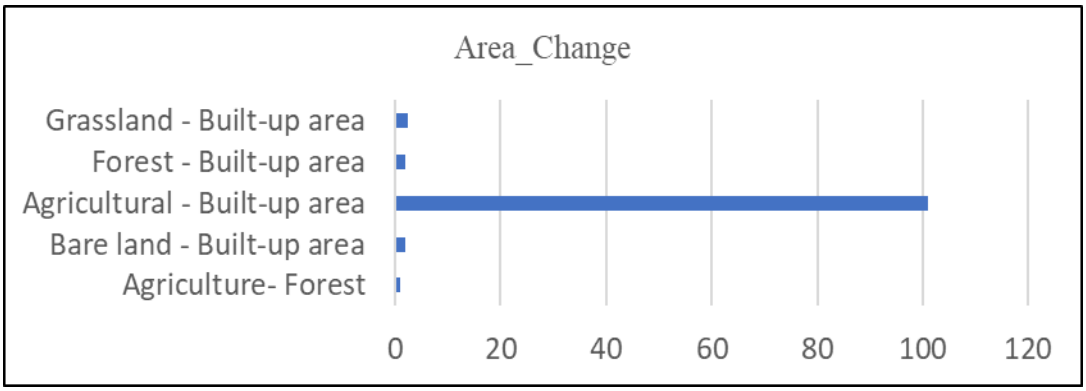


Figure 4.7: the change of one land-use class to another land-use class

Source: Analysis in ArcGIS 2020, April, 2021

4.3.2 Accuracy Assessment in LULC change in Dil-Yibza Town

Three images were taken to assess land use, land cover changes. But the accuracy of the image was classified and assessed by taking ground control points and understanding of the researcher from field observation. The accuracy of the classified image was evaluated by constructing confusion matrices using 40 ground control points for the classified image. Those control points are randomly collected in the study area.

The main purpose of accuracy assessment is to quantify the accuracy of the map and generate an error matrix to correct the bias in the map. For land use, land cover changes, it is necessary to look at the overall accuracy of, change rather than the accuracy of single land cover maps. So, overall accuracy, producer's accuracy, user's accuracy, and overall Kappa statistics were derived from the error matrix. In an error matrix, the pixels located along the diagonal i.e., from the upper left to the lower right

represent pixels that are classified into their correct category while pixels out of diagonal pixels represent omission and error matrix respectively.

Producer's accuracy is derived from error, omission which, means of dividing the number of correctly classified pixels in each category by the number of training pixels used for that category (total row). On the other way, the user's accuracy is calculated by dividing the number of correctly classified pixels in every 55 categories by the total number of pixels in that category which is derived from commission error (Congalton, 2000).

The overall accuracy result of the study area's classification is derived from both producers and users or by dividing the total number of correctly classified pixels (sum of major diagonal) by the total pixel assigned in all categories for assessment. But Kappa statistics inform what extent percentage correct values of an error matrix are from "true" agreement versus "chance" agreement. The value of these statistics, extended from 0 to 1 to give meaning poor or best classification result (Lillesand, 2004) (cited by Teketel, 2015).

Since the overall accuracy of the classification was 92.5% with Kappa statistics of = 0.9045, it represents 92.5% of better accuracy of supervised classification than using unsupervised random classification. Different articles like Landis (1977) stated that it is an excellent classification of land use, land cover but the poor classification of what time K > 0.75 and thus agreement from various authors; kappa coefficient value (0.9045) concluded to that classification result of LULC of the current image has excellent accuracy.

Overall Accuracy

The overall accuracy is essentially telling us out of all the reference sites what the proportion was mapped correctly. The overall accuracy is usually expressed as a percent, with 100% accuracy was being a perfect classification where all reference sites were classified correctly. Overall accuracy is the easiest to calculate and understand but ultimately only provides the map user and the producer with basic accuracy information the diagonal elements represent the areas that were correctly classified. To calculate the overall accuracy, you add the number of correctly classified sites and divide it by the total number of reference sites.

$$\text{Overall Accuracy} = \frac{\text{Total No. of Correctly Classified Pixel(Diagonals)}}{\text{Total No. of Reference Pixel}} \times 100$$

For example, based on the above error matrix: the number of the correctly classified site: 10 + 7 + 9 + 6 + 5 = 37and the total number of the reference point = 40. The overall Accuracy = 37/40 = 92.5%.

We could also express this as an error percentage, which would be the complement of accuracy: error + accuracy = 100%. In the above example, the error would be the number of sites incorrectly classifieds divided by the total number of reference points. I.e., 3/40 = an error, = 7.5%.

User's Accuracy

The User's Accuracy is the accuracy from the point of view of a map user, not the mapmaker. The user's accuracy essentially tells us how often the class on the map will be present on the ground which refers to the reliability. The User's Accuracy is complemented by the Commission Error, the user's Accuracy = 100%-Commission Error.

$$\text{User Accuracy} = \frac{\text{No. of Correctly Classified Pixel in each Category}}{\text{Total No. of Classified Pixel in that Category(The Column Total)}} \times 100$$

As shown in the above equation, the User's Accuracy is calculating by taking the total number of correct classifications for a particular class and dividing it by the column total. User's Accuracy Example based on the above table 4.18 error matrix: agriculture: Correctly classified reference point on agriculture site = 10, Total number of reference point on agricultural site = 10, then user's Accuracy = 10/10 = 100%, the other land-use type user's accuracy was bare land = 7/8 = 87.5%, built-up area = 9/10 = 90%, forest = 6/6 = 100% and grassland = 5/6 = 83.33%.

Errors of Commission

Commission errors are calculated by reviewing the classified sites for incorrect classifications. This is done by going across the rows for each class and adding together the incorrect classifications and dividing them by the total number of classified sites for each class (Harpst, 2014). Therefore, the commission error of agriculture, bare land, built-up areas, the forest, and the grassland was 0%, 12.5%, 10%, 0%, and 16.67% respectively.

Errors of Omission

Errors of an omission refer to reference sites that were left out (or omitted) from the correct class in the classified map and calculated by reviewing the reference sites for incorrect classifications. This is done by going down the columns. I.e., the incorrect classified count had divided by the total number of each column pixel as shown in Table 4.18 below, the omission error of agriculture, bare land, built-up areas, the forest, and the grassland was 9.1%, 0%, 10%, 14.28%, and 0% respectively.

Table 4.18: Error matrix for classification validity by land sat 8 of 2020

		Reference							
Classification	LULC Type	Agriculture	Bare land	Built-up land	Forest	Grass land	Total	Commission Error (%)	User\s accuracy (%)
	Agricultu	10	0	0	0	0	10	0	100
	Bare land	0	7	0	1	0	8	12.5	87.5
	Built-up	1	0	9	0	0	10	10	90
	Forest	0	0	0	6	0	6	0	100
	Grass	0	0	1	0	5	6	16.67	83.33
	Total	11	7	10	7	5	40		
	Producer A. (%)	91	100	90	75	100			
	Omission Error (%)	9.1	0	10	14.28	0			
	Overall Accuracy	92.5%							
	Kappa Coefficient	0.9045							

Source: Analysis in ArcGIS 2020, April, 2021

Kappa Coefficient

Cohen's kappa is a statistical coefficient that reflected the degree of accuracy and reliability in the statistical classification and is calculated using a statistical test to assess classification accuracy. Kappa is metric that measured how well a classification had worked as opposed to assigning values at random. The Kappa Coefficient can be anywhere between 0 and 1. The classification is no better than a random classification if the value is 0. The rating is substantially worse than random if the number is negative. A close approximation to 1 means that the classification is substantially better than the chance.

$$K = \frac{Po - pe}{1 - pe}$$

$$pe = 0.215$$

$$Po = 0.925$$

K= (0.925-0.215)/1-0.215 = **0.9045** or **90.45%**

Where Po is the relative observed agreement among raters, and Pe is the hypothetical probability of chance agreement.

According to JR Landis and GG Koch (1977). Kappa is never greater than or equal to one. A value of 1 indicates complete agreement, while values less than 1 indicate less than complete agreement. There's a chance that kappa is negative. This implies that by chance, the two observers had agreed less than would be predicted. The strength of agreement of kappa statistics between 0.81 and 1.00 is almost perfect in general. As a result, the kappa statistics coefficient of this study is 0.9045, which is within the acceptable range.

4.3.3 Trend of urbanization in Dil-Yibza town

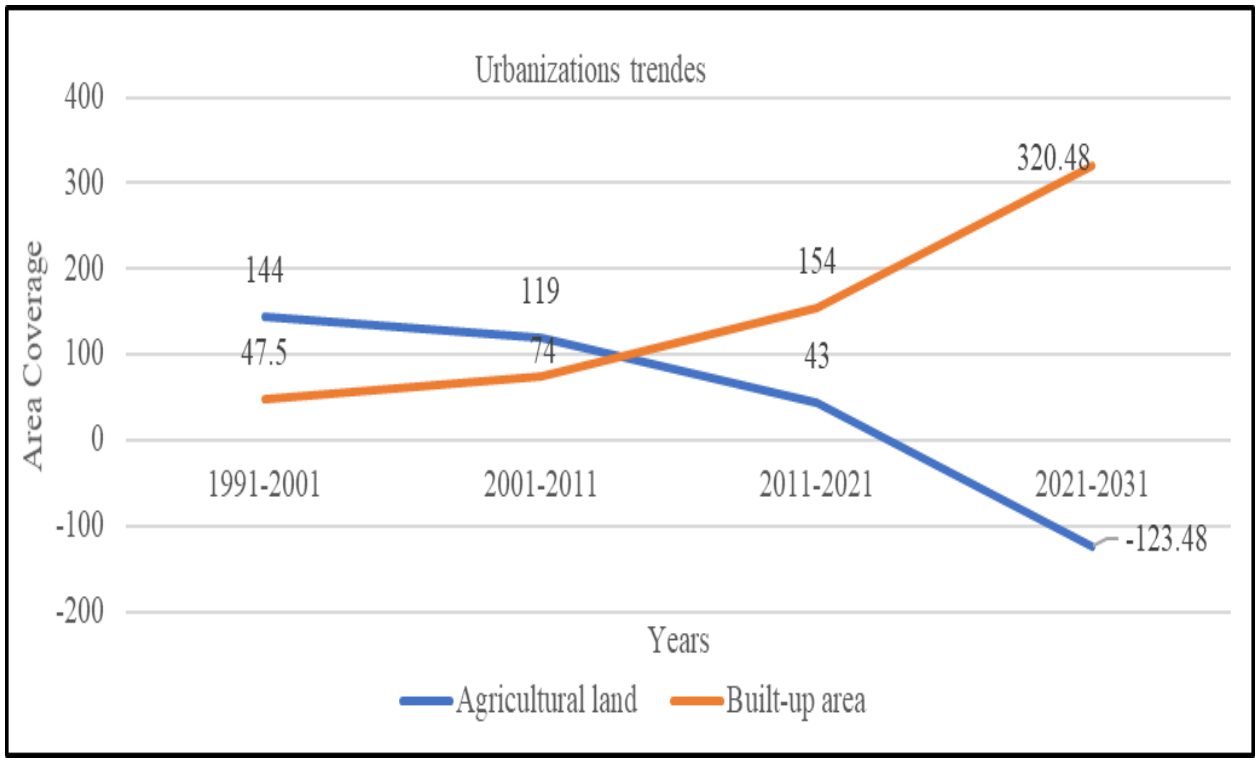


Figure 4.8: The trend of urbanization in Dil-Yibza town

Source: Landsat Image analysis of ArcMap10.4.1, in ArcGIS 2020, April, 2021

In Dil-Yibza town, the area coverage of urban land became increase from time to time; i.e., 1991-2001=47.5 ha, 2001-2011= 74 ha, and 2011-2021= 154 ha, and the future expectation will be rise to 320.48 ha from 2021-2031. On the contrary, agricultural land became decrease from time to time; i.e., 1991-2001=144 ha, 2001-2011= 119 ha, and 2011-2021= 43 ha, and the future expectation will be rise to -123.28 ha from 2021-2031. Here, an expectation to future decades, 43 ha of agricultural land would be covert to urban land and -123.48 ha (Figure 4.8 above) other additional farm lands out of the town boundary and total 166.48 ha of farm land will be covered by urban land. This is also expected as at least 432 peri-urban farmers will be displaced.

4.4 The Process of Expropriation

As shown in Table 4.19 underneath, from the total household respondents 91.5% said that they are not aware of the expropriation process because the land administrator in Dil-Yibza town did not arrange any awareness program for all land peri-urban landholders, but only 8.5% of the respondents have awareness on the process of the expropriation because of some farmers was kebele workers and village leaders. Proclamation No. 1161 (2019), art. 8/a declared the need for consulting land holders who are to be displaced at least one years before they hand over their holdings on the type; benefits and general process of the project. On the contrary, 33.8% of the HHRs were not aware before expropriated their land in the study area because most people in the study area did not attend the urbanization program conference or the assembly and 66.2% of the HHRs have awareness before the expropriation.

Table 4.19: Awareness of displaced farmers about expropriation with the perception of HHRs

		Frequency	Percent
Did you know the process of expropriation?	No	130	91.5
	Yes	12	8.5
	Total	142	100.0
Did you aware before expropriate your land?	No	48	33.8
	Yes	94	66.2
	Total	142	100.0

Source: Household survey, April, 2021

Generally, Peri-urban farmers in the study area have no awareness of the process of the expropriation (see Case 2 below).

Case 2: Expropriation process and ways of urbanization and rehabilitation

I am Geography and environmental development expert and employ in rural land administration office of land evaluation and rehabilitation staff. All farming land in the town including the administration zone is still administered by us rural land administrators. The value of land and improvement was also evaluated by us. The ways of conversion of farm land to urban land had two ways. First, when expropriators want the land and second, when the owners want to make improvement on their own land. In the first way, (1) municipality or another expropriator informed us what they want to expropriate with site plan; (2) we cheek the holder of the land in the site plan; (3) we announce the land holder as the land would be wanted to other purpose by conference, letter, or media; that they should be ready and displaced their properties improved on the land; (4) check the boundary of each farmers holding and measure the area in ha; (5) count the properties improved

Continue....

on the land and evaluated the land and properties by valuation committees; (6) introduced the amount of land and property values to the owner; (7) deposit the compensation values from Amhara Credit and Saving Service (ACSS) in to each affected farmer's account with co-signatory mixed; (8) they withdraw the money according to their action plans. In the second way, when farmers want to develop on their own land, land administrator wrote documented evidence to municipality and the municipality approved and authenticated the land and give urban land certificate, and the rural land administrator also subtracted the approved land from the green book of rural land certificate. We are not given awareness about money handling and wisely use of resources and techniques that how to rehabilitated themselves on the other hand, the in-kind or exchange other alternative farm land given to farmers by classified three fertility levels such as fertile, moderate and less fertile and commensurate with its fertility levels but not consider the distance, the value of properties improved on the land such as terracing, planting trees, etc. generally compensation in-kind had not been more problems otherwise compensation in-cash had been a greater problem because the living condition and inflation. **(My key information from experts, April 2021**).

Proclamation No 1161(2019), art. 8/a ordered that, the way of announcement for peri-urban farmers for urbanization program should be consultation by conference. But in the study area there are different ways of announcements of urbanization programs in the study area. These include single personal letters, the conference/the assembly in the hall, media, and other informal information by persons in different places. From the analysis, in Table 4.20 35.9%, the 71.13%, 3.6%, and 57% of respondents respectively agreed that the single legal personal letter, the conference/the assembly in the hall, different media, and information by another person were the best way of the announcement of the urbanization program and the 64.1%, 28.87%, 94.4% and 43% of respondents respectively claimed as they were not informed by a single legal personal letter, the conference/the assembly in the hall, different media and information by another person.

Table 4.20: Ways of announcement about urbanization program for PUFHHs

Alternatives	Single legal personal letter		Conference/Assembly in the hall		By different media		Information by another person	
	#	%	#	%	#	%	#	%
Yes	51	35.9	101	71.13	8	5.6	81	57.0
No	91	64.1	41	28.87	134	94.4	64	43.0
Total	142	100.0	142	100.0	142	100.0	142	100.0

Source: Household survey, April, 2021

As Firew (2010) seen, promised compensation have not been served so far. Like ways, the peri-urban farmers' agreement on promised compensation in the study area showed different levels of agreements and as shown in the Table 4.21 about 49.3%, 14.1%, 30.3% and 6.3% of the total HHRs respectively expressed strongly agree, agree, disagree and strongly disagree.

Table 4.21: The agreement HHRs on the promised compensation

Alternatives	Strongly agree	Agree	Disagree	Strongly disagree	Total
Frequency (#)	70	20	43	9	142
Percent (%)	49.3	14.1	30.3	6.3	100.0

Source: Household survey, April, 2021

4.5 Livelihood activities of HHs before and after displaced

Households whose land was expropriated practiced different livelihood activities to engaged access to food to formulate better living. As shown in Table 4.22 below, 98.9% and 1.4% of the HHs in the study area respectively were involved in agriculture and non-agriculture livelihood activities before being displaced. On the contrary, 93.7% and 2.8% of HHs in the study area got involved in agriculture and non-agriculture livelihood activities after being displaced. This indicates that almost all peri-urban farmer's livelihood activity in the study area is agriculture.

Table 4.22: Categories of the economy of HHRs before and after displaced

Alternatives		None-agriculture	Agriculture	Both	Total
Before displaced	#	2	140	0	142
	%	1.4	98.9	0	100.0
after displaced	#	4	133	5	142
	%	2.8	93.7	3.7	100.0

Source: Household survey, April, 2021

4.5.1 Income-generating activities of HHRs before displaced

The agricultural livelihood activity includes on-farm activities such as crop cultivation, cash crop production, forestry, and so on, and off-farm activities such as livestock rearing, bee reproduction, and so on. Therefore, this thesis gives alternative questionnaires for peri-urban farmers who are livelihood choice was agriculture. As shown in Table 4.23 below, the survey result was 0%,0%, 0% 2.1%,3.5% 94.4% of the HHRs respectively, and orderly agreed that forestry, the bee-reproduction, other, cash crop production, livestock rearing, and crop cultivation were the income-generating activities in the study area. On the contrary, 100%, 100%, 100%, 97.9%, 96.5%, and 5.6%of the HHRs respectively disagreed that forestry, the bee-reproduction, other, cash crop production, livestock rearing, and crop cultivation were the income-generating activities in the study area. Therefore, the livelihood activities

of peri-urban farmers in the study area are on-farm an agricultural activity of crop cultivation. This is because there were no alternative adequate income-generating activities in the study area.

Table 4.23: Income generating activities of HHRs before displaced

Alternatives	Forestry		Livestock rearing		Crop cultivation		Bee reproduction		Cash crop production		Other	
	#	%	#	%	#	%	#	%	#	%	#	%
Yes	0	0	5	3.5	134	94.4	0	0	3	2.1	0	0
No	142	100	137	96.5	8	5.6	142	100	139	97.9	142	100
Total	142	100.0	142	100.0	142	100.0	142	100.0	142	100.0	142	100.0

Source: Household survey, April, 2021

4.5.2 Income-generating activities of HHRs after displaced

From the total HHRs,14.4% of those agreed that there are better job opportunities currently than before. On the contrary, 85.9% of the HHRs claimed there is no better job opportunity today. But the living standard of the farmer is still handed to the mouse because of the salaries and the cost of luxury goods very high. In the study area, the income-generating activities of peri-urban household farmers after being displaced had shown some shift. Firew (2010) concluded that, the livelihood activities of displaced farmers had in newly changed environment. But, survey results in the study area 93.7% of displaced farmers income-generating activity is crop cultivation and another 4.2%, 5.6%, 2.1%, 4.9%, and 2.1% of HHRs had income-generating activities namely daily labor, own business, migrating far to another area, small business in local drink brewing (Tella, Areqi, Teji ...) and other respectively (Table 4.24 below).

Table 4.24: Income generating activities of HHRs after displaced

Alternatives	Crop cultivation		Daily labor force		Own business		Migrating far to another area		Small business (Tella, Areqi...)		Government employment		Working in someone's house		Other	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Yes	133	93.7	6	4.2	8	5.6	3	2.1	7	4.9	0	0	0	0	3	2.1
No	9	6.3	136	95.8	134	94.4	139	97.9	135	95.1	142	100	142	100	139	97.9
Total	142	100	142	100	142	100	142	100	142	100	142	100	142	100	142	100

Source: Household survey, April, 2021

On the other hand, 6.3%, 95.8%, 94.4%, 97.9%, 95.1%, 100%, 100%, and 67.9% of HHRs refused income-generating activities such as crop cultivation, daily labor, own business, migrating far to

another area, small business (Tella, Areqi, Teji ...), government employment, working in someone's business activities and other respectively. Here, no one HHRs approve government employment, and working in someone's house was an income-generating activity.

4.5.3 Push factors for shifting livelihood activities after displaced

Urbanization had been compulsorily altered the income-generating activities of peri-urban farmers. There were push factors that shifted the income-generating activities of peri-urban farmers. According to HHRs, decrease farmland size and unsustainability of enough crop production, replacement of farmland by financial compensation and inadequate compensation for expropriated farmland dominantly affects shifting economic activities.

Generally, as revealed in Table 4.25 here below, 97.9%, 95.1%, 63.4%, 55.6%, and 20.4% of the HHRs answered that, decrease farmland size and unsustainability of enough crop production, replacement of farmland by financial compensation, inadequate compensation for expropriated farmland, absence of well-trained finance usage and others respectively were the push factors of livelihood option after an urban expansion program.

On the other hand, 52.1%, 4.9%, 36.6%, 44.4%, and 79.6% also did not agree to decrease of farmland size and unsustainability of enough crop production, replacement of farmland by financial compensation, inadequate compensation for expropriated farmland, absence of well-trained finance usage and others respectively was not the push factors of livelihood option after an urban expansion program.

Table 4.25: Factors to shift the former income-generating activity of HHRs

Alternatives	Decrease farmland and unsustainability of enough crop production		Replacement of farmland by financial compensation		Inadequate compensation for expropriated farmland		Absence well-trained finance usage		Other	
	#	%	#	%	#	%	#	%	#	%
No	3	2.1	7	4.9	52	36.6	63	44.4	113	79.6
Yes	139	97.9	135	95.1	90	63.4	79	55.6	29	20.4
Total	142	100.0	142	100.0	142	100.0	142	100.0	142	100.0

Source: Household survey, April, 2021

Furthermore, other factors affected the outcome of the current livelihood strategies of affected farmers in the fringe area. These are summarized in Table 4.26 shows that 97.2%, 60.6%, 88.7%, 50%, and 91.1% of the HHRs stressed that inadequate access of capital for a job opportunity, lack of Labor knowledge, the failure to adopt urban-related livelihood, lack of confidence due to the violation of the

land right and limited farmland due to the disposition and the fragmentation respectively affected current livelihood activities.

But on the other hand, 2.8%, 39.4%, 11.3%, 50%, and 9.9% of HHRs also said that inadequate access of the capital for a job opportunity, lack of labor, knowledge, the failure to adopt urban-related livelihood, lack of confidence due to the violation of the land right and limited farmland due to the disposition and the fragmentation respectively did not affect current livelihood activities.

Table 4.26: Factors that forced the current livelihood strategy of HHRs in the study area

Alternatives	Inadequate access of capital for a job opportunity		Lack of Laboure knowledge		Failure to adopt urban-related livelihood		Lack of confidence due to violation of the land right		Limited farmland due to disposition and fragmentation	
	#	%	#	%	#	%	#	%	#	%
No	6	2.8	56	39.	16	11.3	71	50	14	9.9
Yes	138	97.2	86	60.	126	88.7	71	50	128	90.1
Total	142	100.0	142	100	142	100.0	142	100	142	100.0

Source: Household survey, April, 2021

As discussed before, expropriated peri-urban farmers obtained different types of compensation for the loss. These were in-cash and in-kind compensation. From the total peri-urban farmers, 66.2% of displaced farmers were expropriated by monetary (in-cash) compensation, and the rest 33.8 exchange land (in-kind) compensations. In my study area expropriated peri-urban farmers also obtained both kinds of compensation.

4.5.4 Ways of deliveries of monetary compensation for expropriated farmers

Compensation for expropriated farmers was paid through banks and each expropriated framer opened bank accounts in Commercial Bank of Ethiopia, and Amhara Dept and Credit Service so that the money is directly deposited in their account. Generally, as HHRs, 96.8%, 2.14%, and 1.06% respectively and orderly were ways that they obtained their compensations (see Table 4.27 below).

Regulation No, 472(2020), a regulation to provide for expropriation of land for public purposes and valuation declares that compensation and resettlement that there are pre-conditions to withdraw the monetary compensation from the deposited bank during expropriation. Drafting an action plan for permanent improvement or other activities is a precondition to withdraw money. But in the study area, almost all expropriated farmers have withdrawn money without drafting an action plan which means 92.5% of HHRs withdraw now and then for daily expenses. This is difficult that affected farmers to rehabilitated themselves.

Table 4.27: Ways of delivering monetary compensation for displaced farmers

Ways of delivery					Pre-conditions to withdraw money		
Alternatives	Face to face delivery by hand	Entering into your bank account	Send to your return	Total	Drafting action plan for permanent improvement	Withdraw now and then for daily expenses	Total
#	2	91	1	94	7	87	94
%	2.14	96.8	1.06	100.0	7.5	92.5	100.0

Source: Household survey, April, 2021

4.6. Amount of land that displaced farmers were lost and gained

The amount of land held by peri-urban households varied before and after an urban expansion. Although, knowing the perfect amount of land was difficult, it was tried to analyze as per the responses of respondents. Because no one of the farmers holds the second land certificate in the study area; the amount of land is still measured by the traditional and local way of the measurement in Timid (which is a quarter of a hectare). In short, as reviled in Table 4.28 below, the .7%, 16.9%, 38.7%, and 43.7% of HHRs have 5-6, 3-4, 1-2 and bellowed 1 the hectare before they were displaced respectively. On the other hand,1.4%, 16.2% 24.6%, 24.6% of the HHRs have 5-6, 3-4, 1-2 and have been bellowed 1 the hectare after displaced respectively.

Table 4.28: The amount of land and No. classes of HHRs before and after displaced

Alternatives			Above 7	5-6	3-4	1-2	< 1	Total
Amount of land in hectare	Before	#	0	1	24	55	62	142
		%	0	0.7	16.9	38.7	43.7	100.0
	After	#	0	2	23	35	35	142
		%	0	1.41	16.2	24.6	24.6	100.0
No. of classes	Before	#	0	3	18	87	34	142
		%	0	2.1	12.7	61.3	23.9	100.0
	After	#	4	33	29	61	15	142
		%	2.8	23.2	20.4	43.0	10.6	100.0

Source: Household survey, April, 2021

4.7 Fertility level of land that displaced farmers were lost and gained

To compare the livelihood option of displaced farmers before and after expropriation, compare and contrast the fertility level of the former land and the land obtained by alternative compensation is very essential. Therefore, respondents have indicated that the fertility level had of some land exchanged in-kind for the compensation in the urbanization program of the similar fertility level in others higher than the expropriated land and some cases of the low fertility level and the details are shown in Table 4.29 below. The main question here is that what was the action of the government to equalize the fertility of the land which had a low fertility level than the expropriated land.

Table 4.29: The soil fertility level of land gained in exchange as a compensation

Levels of fertility					The action of the government to commensurate values		
Alternative	High	Equal	low	Total	Farm land Added	Not yet add	Total
#	5	32	11	48	20	28	48
%	10.5	66.6	22.9	100.	41.6	58.4	100.0

Source: Household survey, April, 2021

The survey result indicates 41.6% of HHRs in the study area indicated the government had added the additional farmland to equalize the value of the farmland. On the contrary, 58.4% of HHRs stated that the responsible bodies did not take action the additional area to equalize the land value.

4.8 Domestic animals in the study area

Table 4.30: types of land right violated during expropriation

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Number of Ox before displaced	13.101	141	.000	1.014	.86	1.17
Number of Ox after displaced	11.181	141	.000	.683	.56	.80
Number of Cow before displaced	9.988	141	.000	.655	.53	.78
Number of Cows after displaced	6.405	141	.000	.338	.23	.44
Number of Sheep before displaced	7.622	141	.000	.775	.57	.98
Number of Sheep after displaced	5.938	141	.000	.430	.29	.57
Number of Goat before displaced	2.647	141	.009	.120	.03	.21
Number of Goats after displaced	2.137	141	.034	.049	.00	.09
Number of Horse before displaced	2.901	141	.004	.056	.02	.09
Number of Horse after displaced	3.145	141	.002	.077	.03	.13
Number of Donkey before displaced	7.924	141	.000	.493	.37	.62
number of Donkey after displaced	7.600	141	.000	.394	.29	.50
number of Poultry before displaced	7.411	141	.000	.627	.46	.79
number of Poultry after displaced	6.512	141	.000	.486	.34	.63

Source: Household survey, April, 2021

Firew (2010) indicated that, the mean cow ownership at current time has declined by more than half. Asmera (2018) also concluded that, the number of poultry kept by displaced farmers have decreased. However, as shown in Table 4.30, the current change in the mean value of each domestic animal from the former was 1.014 to 0.683, 0.655 to 0.338, 0.775 to 0.430, 0.120 to 0.049, 0.493 to 0.394, 0.627 to 0.486 of Oxen, Cows, Sheep, Goats, Donkeys, and poultry respectively. As a result, the current mean value of the horse was greater than that of the former which increased from 0.056 to 0.077 (see Table 4.31 below). As respondents reasoned, expropriated peri-urban farmers use the Horse for one means of

off-farm livelihood activities as a cart and for on-farm activities to plowing the land. As respondents, all other domestic animals of the peri-urban farmers diminished from time to time. The reason behind this was the lack of grassland and fodder and the narrowness of habitats.

4.9 Social relationship before displaced with neighborhoods

The social relationship had between displaced farmers with displaced farmers and displaced farmers with other people may vary before and after being displaced in the urbanization program. As respondents, 40.8%, 57.7%, 0.7%, 0%, and 0.7% agreed that the status of social relationships was very high, high, moderate, low, and very low before being displaced, respectively, and 15.5%, 24.6%, 53.5%,5.6%, and 0.7% agreed that the status of social relationships was very high, high, moderate, low, and very low after being displaced, respectively (see Table 4.31 under). There was a change in social relationships before and after displacement because, according to respondents, this change was altered with decreasing level of living status; the relationship not only with neighbors but also with expropriators decreased after expropriation.

Table 4.31: Social relationship of HHRs before and after displaced with the perception HHRs

Alternatives		Very high	High	Moderate	Low	Very low	Total
Before	#	58	82	1	0	1	142
	%	40.8	57.7	0.7	0	0.7	100.0
After	#	22	35	76	8	1	142
	%	15.5	24.6	53.5	5.6	0.7	100.0

Source: Household survey, April, 2021

4.10 Implementation of land policy

As a result, 83.1 % of HHRs said that the town's urban land policy was not been implemented, whereas the other 16.9% agreed that the program was been correctly implemented. All HHRs were unfamiliar with the urban land policy, yet they were knowledgeable. As a result, they have claimed their rights and submitted answers to a survey as proof of their attitudes.

4.11 Compensation and validating landholders' property

Table 4.32: Satisfaction of HHRs on newly adopted livelihood strategies after displaced

Alternatives	High satisfaction	Moderate satisfaction	Dissatisfaction	High dissatisfaction	Total
#	1	31	37	73	142
%	0.7	21.8	26.1	51.4	100.0

Source: Household survey, April, 2021

The satisfaction of newly adopted livelihood strategies of displaced peri-urban farmers in the study area was low. As indicated in Table 4.32 above, 0.7%, 21.8%, 26.1%, and 51.1% respectively showed

that the satisfaction level of HHRs in ascending order from very high satisfaction to low satisfaction.

4.12 Land rights of peri-urban farmers

According to Achamyeleh (2017), “land rights in the peri-urban areas are shaken and challenged by distinct sparking power which resulted in instability and insecurity of land tenure”. Similarly, peri-urban farmers in the study area had no full land right at all; if so, it creates other questions that what types of land rights were violated. To do so, the types of land rights that were violated during the urbanization program of the survey questionnaires were analyzed by using a binary logistic regression method. The response of HHRs was if violated “1” if not “0”. As shown in Table 4.33 except “use right” the P-value of all other variables was > 0.05; urban expansion had not been significantly affected on these variables. Therefore, the null hypothesis on transfer, mortgage, collect fruit, permanent improvement, and inheritance rights was not rejected. But urban expansion had significantly affected peri-urban farmers' use right of the land at a 95% level of confidence with p-value = .000 ($p < 0.05$).

Table 4.33: Binary logistic regression had in types of the land right violated during the urbanization program

Variables	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Transfer right (1)	-.842	.650	1.680	1	.195	.431	.121	1.539
Mortgage right (1)	-.345	.559	.380	1	.537	.708	.237	2.119
The right to Collect fruit (1)	-.167	.620	.072	1	.788	.846	.251	2.854
Permanent improvement (1)	.365	.483	.570	1	.450	1.440	.559	3.711
Inheritance (1)	-1.909	1.135	2.830	1	.093	.148	.016	1.370
Use right (1)	1.924	.400	23.185	1	.000	6.847	3.129	14.983

Source: Household survey, April, 2021

4.13 Legal and Institutional Support with the perception HHRs

Table 4.34: Agreements of HHRs on legal and institutional support and benefits of urbanization

Alternatives	Was there Legal and institutional support had for displaced farmers?		Did you have been believed that all peri-urban farmers have full land right?		Was urbanization beneficial for peri-urban farmers?	
	#	%	#	%	#	%
No	130	91.5	83	58.5	100	70.4
Yes	12	8.5	59	41.5	42	29.6
Total	142	100.0	142	100.0	142	100.0

Source: Household survey, April, 2021

Case 4: Urbanization, land right and livelihood strategy

I live in Dil-Yibza town and I am 59 years old. I am not literate; I have 4 daughters and 2 sons total 7 family members and I am widowed. The source of my livelihood activities before and after expropriated was crop cultivation in agricultural sector. I had 5 fragmented land parcels and the total amount of land was 7 Timad (in traditional measurement). From these land parcels the two land parcels were found in the fringe area, and the rest three land parcels found in rural area far from the town. Both land parcels that found in the town are expropriated for the purpose school service with in-kind or alternative exchange land compensation, and for the purpose of towns residential associations with monetary compensation. The monetary compensation was deposited in my account from Amhara Credit and Saving Service (ACSS) 150,000 ETB. I withdraw the money for my daily expenses, and finish by two years because I have no skill about handling money. Now I have no birr in my account. Before expropriated, I plowed the fringe land by myself but now a day I have only 2 Timad land because the land other than expropriated was also divided to my family married. Currently, my land is plowing by another person with shar-cropping because the alternative compensation is found in other remote Kebele. I had not livestock or domestic animals. I have 75 m^2 land in the town with one house, and I live in it. I have not been getting the chance to get other wider urban land from my fringe farm land, and I still claiming to responsible bodies but not get solution. The response of the municipality and the rural land administrator were "you have urban land in the town, so you have not right to get other land in the town, it is prohibited by law". I have not claimed to court because I hope the municipality and rural land administrator may give a solution. My living now is hand to mouse because I have no other alternative livelihood activities and skills. Currently, I live solely with my youngest daughter because some's had married and some had migrated to neighbor's region Tigray because there is no legal and institutional support and alternative job in Dil-Yibza town **(My key information of female elder peri-urban household April 2021**).

According to respondents in Table 4.34 above, 91.5%, 58.5%, and 70.4% of them agreed there was no legal and institutional support, the peri-urban farmers have not been full land rights and the urban expansion was not beneficial for peri-urban farmers respectively. On the contrary, 8.5%, 41.5%, and 26.9% respectively of HHRs also disagreed with the above impressions. Generally, the results were indicated that there was no legal and institutional support had for displaced farmers in the study area. However, Achamyeleh (2017), wrote as urbanization is a livelihood constraint to the local peri-urban people, urban expansion had no beneficial effect for peri-urban farmers to access a better livelihood option. in the study area in accordance with HHRs perceptions.

Chapter Five

5. Conclusions and Recommendations

5.1. Conclusions

The trend of urbanization in Dil-Yibza town was illegal, traditional, and informal; because the town had no development plan until 2011. After 2011, urban landholders were registered with a document following the partition of the town plan. In this finding, although Dil-Yibza town was aged 152 years, it started to expand rapidly after 2011, and the town enlarged from 74 ha to 154 ha horizontally.

The demand for housing and infrastructure development has led to the expansion of the town and to enhance the urban development. The population growth and construction of roads from Debark town to Dil-Yibza town and easy transport access for raw construction materials have speeded up the town's growth. Peri-urban farmers in the study area lost some of their lands and in some cases up to half, a quarter, or greater than half of their holdings were expropriated and many framers in the peri-urban areas have fragmented landholdings.

The livelihood condition of the farmers specially expropriated with monetary or in-kind compensation is decreasing from day to day or from time to time. Because expropriated farmers did not know how they have to manage their money and generate income and rehabilitate themselves in a new economic activity. Following the inclusion of rural lands into the urban boundary and the above factors, most rural land uses like open space, grassland, and forest areas and an especially huge amount of rural farmland uses were severely shifted to residential, infrastructural, and other various urban uses. If the current level of expansion continued with this condition, above 166.48 ha of agricultural land would be converted into the urban built-up area and a minimum of 432 peri-urban farmers will be displaced for the next one decade.

The livelihood option of all peri-urban farmers in the study area before urbanization was agriculture-based activities especially crop cultivation. On the other hand, some expropriated peri-urban farmers after being displaced are creating other non-agricultural livelihood activity options side-by-side with daily labor, own business, migrating far to another area, small business (Tella, Areqi, Teji ...).

In the Dil-Yibza town case, the expropriator was only government officials or institutions because there were no private investors in the town, but early residential associations were expropriators under the municipality and rural land administrators follow up. The value estimation for the

property was terracing in the meter, the tree (high, medium, and small), as well as trees with fruit, was producing every year, twice per a year, crop yield in a hectare by current cost, and so on.

To some extent, the expropriation process tries to perform following the provisions. The exhausted trend in the study area of an urbanization program, compensation was not evaluated by a specialized expert and without the grievance hearing committee. So, the affected farmers have claimed their grievance to the evaluator, to head of a land administrator, or to the woreda administrator, or courts.

The view of all respondents about urban expansion in Dil-Yibza town was not in the side of beneficial to peri-urban farmers and the further urban expansion has advantages and disadvantages on land rights and livelihoods of peri-urban farmers. Some advantages of an urban expansion on the livelihood were creating of new job opportunities, access to food, and better living the condition. The disadvantage of an urban expansion on the livelihood and land rights may have to include insecure land rights, violating of the land right, the less incentive to invest, land the right shock and the stress, low-income difficulty to on-farm and off-farm activities.

Comparative to the early livelihood condition, peri-urban farmers had in the studied area currently fall into the unsecured livelihood condition because of problems like; inability to adopt an urban livelihood strategy, a limited farmland due to the municipal expropriating and the gradual fragmentation, the inefficient compensation, the inadequacy of the capital for a job opportunity and lack of the skilled labor. All these are a result of responsible bodies' miss visions and lack of supervision for those affected farmers. Although the value had of the monetary compensation in Dil-Yibza town varied from year to year the amount of the compensation is far below the value of expropriated land.

5.2 Recommendations

The study result showed that newly settled populations were more benefited l while communities who lost their land was a disadvantage. Regarding peri-urban farmers' livelihood of Dil-Yibza town, rapid horizontal expansion and limitations of applying rules and regulations of expropriating, valuating property, stakeholder’s focus of reducing informal settlement and others imposed adverse impact on livelihood. Using an identified gap and impact on the community, the following recommendations are forwarded by the researcher.

There is a need for giving awareness and follow up and supervision for displaced or expropriated farmers, and also providing knowledge and skill on enterprise development so that farmers could benefit from the compensation given to them.

- The government must revise land related proclamations, rules, and regulations on expropriations, peri-urban land rights, and livelihoods that clearly stated how to administer the fringe land and seriously follow the performance.
- Government institutions must create awareness for all landholders about expropriation and what public interest is about.
- Although all peri-urban farmers claimed the security and priority of use right on the land, they had no awareness and enough money to invest and create new job alternatives for their families. The compensation value was delivered with partitions now and then. So, the government or responsible bodies also make farmers action plans related to the amount of compensation and create other alternatives of credit service if any.
- Urbanization programs should be participatory (community-based), so, all peri-urban farmers, civil servants, urban dwellers, and stakeholders should have participated in urban development programs.
- There was a lack of cooperativeness between the rural land administrators and municipalities. The transferring technique of rural land into urban land was bureaucrats in the study area. Due to this, many clients or peri-urban farmers are still on the claim for responsible bodies. Therefore, it is finest that BoRLAU and municipality would be done cooperatively.
- The farming land in the administrative zone of the town boundary had been administered by BoRLAU and the land bounded by the development plan of the town having been administered by the municipality. The common and state land in the administrative zone is still grabbed by people; because of miss administration. So, all land bounded by administrative zone should be administered by the municipality.
- The rural land administrator gives alternative exchange land to their relatives and other groups within the fringe area, but other displaced farmers in the town were got alternative land in remote Kebele; this also minimizes the transparency of government officials as well as create insecurity of land rights and access to other livelihood options and further sever issues between peri-urban farmers and land administrators. So, the government and all people should be fought against corruption and seriously follow the performance.
- In Dil-Yibza town governmental office covers a large area. So, it is recommended that all government offices should be developed or constructed upward vertically.
- The cost of legal expropriation compensation was less than the cost of peri-urban farmers selling land unlawfully. This circumstance produces social, economic, and political friction

between the landholder and expropriator. Hence, the compensation should consider the current market value of the land.

- The compensation should be evaluated by scientific facts; most communities reflecting inability to adopt urban livelihood, stakeholder's subsidy to participated on own business via skill-oriented training for new livelihood strategy and exemplary usage of finance strategy is recommended.
- Responsible bodies should prepare a business plan for displaced farmers who taking financial compensation and also provide the technical support to make their business profitable.

Reference

Achamyeleh G. (2017). Urbanization and the Struggle for Land in the Per-Urban Areas of Ethiopia Bahirdar University African development bank group: Urbanization in Africa

Ambaye, D. W. (2015). *Land Rights in Ethiopia*. https://doi.org/10.1007/978-3-319-14639-3_2.

Amhara National Regional State,(2000) "Proclamation Issued to Determine the Administration and Use of the Rural Land in the Amhara National Region," Proclamation No. 46/2000.

Angel S. (2010c). Urban Land Cover Estimates and Projections for all Countries, 2000- 2050. Cambridge: Lincoln Institute of Land Policy, Planet of Cities:

ANRS. (2010). Expropriation of Landholding for a Public Purpose: Payment of Compensation, and Resettlement of Displaced People Proclamation; BeRLAU Directive No. 7/2010, Art.33/7.

Asmera B. (2008). Impact of Urban Expansion on the Livelihoods of The Peripheral Community: A Case Study from Holeta Town, Oromia, Ethiopia

Berhanu Zeleke. (2005). Impact of urban redevelopment on the livelihood of displaced people and urban development in Finfine: The case study of Casanchis local development; MA thesis submitted to Addis Ababa University.

Bloch, R., Monroy, J., Fox, S., & Ojo, A. (2015). Urbanization and Urban Expansion in Nigeria. *Urbanisation Research Nigeria*, *July*, 65.

Carney, D. (1999). Approaches to Sustainable Livelihoods for the Rural Poor. ODI Poverty Briefing No.2, ODI, London.

Carney, D. Ed. (1998), Sustainable Rural Livelihoods: What Contribution Can We Make? London: Department for International Development.

Cermea, (1997) "Implementing the sustainable rural livelihood approach", In Carney (ed) Sustainable rural livelihood; what contributions can we make? Department of international development: Nottingham, Russell presses LTD.

Chambers, R., & Conway, G. R. (1992). Sustainable rural livelihoods: practical concepts for the 21st century. IDS Discussion Paper, 296(January 1992).

Civil Code. (1960). The Empire of Ethiopia Proclamation no. 1319, 1460, 1518, and 1519 of 1960 Negarit Gazeta.

Daniel W. A. (2012). Land Rights in Ethiopia: Ownership, equity, and liberty in land use rights. FIG Working Week 2012, Rome Italy.

DfID, UK. (1999). Sustainable livelihoods guidance sheets. London: DFID.

Dijk, M. P. van, Fransen, J., & Kassahun, S. (2010). Formalization and informalization processes in urban Ethiopia : incorporating informality (Issue January 2010).

Drinkwater, M., & Care, T. R. (1999). *Livelihoods Approaches Compared Diana Carney With*. *November*.

Eastwood, R., & Lipton, M. (2011). Demographic transition in Sub Saharan Africa: Accounting and economics. Population Studies, 65(1), 9–35. doi:10.1080/ 00324728.2010.547946.

Enemark, S. (2005). Understanding the Land Management Paradigm. *FIG Commission 7 Symposium On Innovative Technologies for Land Administration*, *July 2005*, 1–13.

Israel. (1992). Mpling the evidence of extension program impact program evaluation and organizational development, IFAS. University of Florida. PEOD-5. October 1992.

Ethiopia. (1975). Proclamation No. 31/1975: a Proclamation to Provide for the Public Ownership of Rural Lands. 31, 1–9.

Farrington, J. (2002). In Urban Areas: General Lessons, with Illustrations from Indian Cases. Overseas Development Institute, 1.

FDRE. (2005). Expropriation of Land Holdings for Public Purpose and Payment of Compensation Proclamation. Federal Democratic Republic of Ethiopia Proclamation No.455/2005. Negarit Gazeta. Addis Ababa, Ethiopia., 3124.

FDREHPR. (1995). Proclamation NO. 1/1995 A Proclamation to Pronounce the Coming Into Effect of the Constitution of the Federal Democratic Republic OF Ethiopia. Federal Negarit Gazet A 1’1Year No.1 Addis Ababa - 21sl August 1995, 1, 1–38.

FDREHPR. (2019). Expropriation of Landholdings for Public Purposes, Payments of Compensation and Resettlement of Displaced People Proclamation, Proclamation No. 1161/2019. Federal Negarit Gazette, 58.

Feyera A. (2005). Urban Expansion and Livelihood of the Peri-urban Agricultural Community: the case of Finfine, MA Thesis: Addis Ababa University.

Firew, B. (2010). The Impact of Horizontal Urban Expansion on Sub- Urban Agricultural Community Livelihood: The Case of Tabor Sub-City, Hawassa city, *Addis Ababa University*. https://doi.org/10.5539/jas.v5n1p54.

Frew, M. T. (2013). Institutional Interfaces and Actors' Behavior in Transitional Real Estate Markets of Addis Ababa (Ethiopia): Doctoral Thesis, Institution of Social Studies, the Netherlands.

Gallaso, M. I., Tan, S., & Maria, Q. Y. (2019). Urban Land Use Conflict in Expansion Areas of Wolayta Sodo Town, Snnpr, Ethiopia. Journal of Resources Development and Management, 52, 1–21. https://doi.org/10.7176/jrdm/52-01.

Girma, K. (2011). Issues of Expropriation: The Law and the Practice in Oromia. Thesis on Addis Ababa University.

Glaeser, E. L., & Steinberg, B. M. (2017). Transforming cities: Does urbanization promote democratic change? Regional Studies, 51(1), 58–68. doi:10.1080/ 00343404.2016.1262020.

House of Peoples Representatives, (2005) Proclamation on Expropriation and Compensation PDF available at http://www.hpr.et.gov accessed 5 Jan 2009.

Hussein, K. (2002). Livelihoods Approaches Compared: A Multi-Agency Review of Current Practice. *October*, *January 2002*, 1–61.

https://en.Wikipedia.org/wiki.

http://earthexplorer.usgs.gove./over.

John, W. (2014). Qualitative Inquiry and Research Design London. University of Nebraska, Lincoln.

Johnston, D. (1999). Roman Law in Context, Cambridge, Cambridge University Press, p. 22.

Kaganova, O. (2006). Land delivery mechanism, Land expropriation and property valuation: International experience for Ethiopian. The urban institute, Washington D.C.

Kassahun, S., & Tiwari, A. (2012). Urban Development in Ethiopia: Challenges and Policy Responses. The IUP Journal of Governance and Public Policy, 7(1), 59–65.

Kebbede, G. (2017). Living with urban environmental health risks: The case of Ethiopia. Routledge.

Krantz, L. (2001). The sustainable livelihood approach to poverty reduction: An introduction. *Swedish International Development Policy*, *February*, 1–40.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610. doi:10.1177/001316447003000308.

Landis J.R. and Koch G.G. (1977). «The measurement of observer agreement for categorical data», Biometrics, 33, 159-174.

Mandere, N., Ness, B., & Anderberg, S. (2010). Peri-urban development, livelihood change and household income : A case study of peri-urban Nyahururu, Kenya. *Journal of Agricultural Extension and Rural Development*, *2*(5), 73–83.

Melese, M. (2007). City expansion, squatter settlements, and policy implications in Addis Ababa: The case of Kolfe Keranio sub-city. *Ethiopian Journal of the Social Sciences and Humanities*, *2*(2). https://doi.org/10.4314/ejossah.v2i2.29866.

Minwuyelete, M. (2004). City Expansion, Squatter Settlements and Policy Implications in Addis Ababa: The case of Kolfe keranio sub-city M.A thesis, Addis Ababa University.

Muluwork, B. B. (2014). An assessment of livelihood and food security of farmers displaced due to urban expansion. Mekelle University.

Munteanu, C. (2005). Historical Remarks on the Legal Notion of Property. Acta Universitatis Lucian Blaga, 54, p. 58.

Oduro, C. Y., Adamtey, R., & Ocloo, K. (2015a). Urban Growth and Livelihood Transformations on the Fringes of African Cities: A Case Study of Changing Livelihoods in Peri-Urban Accra. Environment and Natural Resources Research, 5(2), 81–98. https://doi.org/ 10.5539/ enrr.v 5n2 p81.

PMAC. (1975). A Proclamation to Provide for Government Ownership of Urban Land & Extra Houses: Proclamation No. 47/1975. In Ethiopia Tikdem, Addis Ababa, Ethiopia.

Poston D, L. Bouvier. (2010). Population and society: an introduction to demography. Cambridge: Cambridge University Press.

Rakodi, C. (1999), Poverty and wellbeing in the peri-urban interface of developing country cities: A review, prepared on behalf of the UK Department for International Development Natural Resource Systems Research Program. Final Report.

Regulations, S. (2010). Land Development Handbook. In Journal of empirical research on human research ethics : JERHRE (Vol. 5, Issue 1). http://www.ncbi.nlm.nih.gov/pubmed/20235857.

Satterthwaite (2004) the urban Part of Rural Development: The Role of Small towns in developing country context.

Satterthwaite, D., McGranahan, G., & Tacoli, C. (2010). Urbanization and its implications for food and farming. Philosophical Transactions of the Royal Society of London B: Biological Sciences, 365(1554), 2809–2820. doi:10.1098/rstb.2010.0136.

Saunders, M., Lewis, P., & Thornhill, A. (2003,2012). Research methods for business students. In Essex: Prentice Hall: Financial Times.

Scoones, I. (2009). Livelihoods perspectives and rural development. Journal of Peasant Studies, 36(1), 171–196. https://doi.org/10.1080/03066150902820503.

Singh, A. (1989). Digital change detection techniques using remotely-sensed data. Int. Remote Sensing, 10(6), 989-1003.

Singh, N., Gilman J. (1999), Making livelihoods more sustainable, International Social Science Journal 51(4), 539-?545.

Tacoli, C. (1998), Rural-urban linkages and sustainable rural livelihood. Papers presented at the Department for International Development's Natural Resources Advisers' Conference, DFID, London.

Tacoli, C. (1999), Understanding the opportunities and constraints for low-income groups in the peri-urban interface: the contribution of livelihoods framework, Paper produced for the research project on Strategic Environmental Planning and Management for the Peri-Urban Interface Research Project, Development Planning Unit, University College, London.

Tassie Wegedie, K. (2018). Determinants of peri-urban households' livelihood strategy choices: An empirical study of Bahir Dar city, Ethiopia. *Cogent Social Sciences*, *4*(1), 1–22. https://doi.org/10.1080/23311886.2018.1562508.

Teketel Fekadu, (2015). Urban expansion and its effects on communities: the case of Hosanna town, Hadiya zone, SNNPR, Ethiopia. M.A Thesis unpublished: Haramaya University.

Tessema, W.G (2017). Impact of Urban Expansion on Surrounding Peasant Land: The Case of Boloso Sore Woreda, Areka Town, SNNPR, Ethiopia, Wolaita Sodo University. Volume 17 Issue 2 Version 1.0.

Thuo A. (2) (2013a). Exploring how subaltern actions and do-it-yourself strategies are evolving and creating order in new urbanizing areas of developing countries: Reflection on urbanization in Nairobi ‘s peri-urban areas, Kenya. International Journal of Education and Research Vol. 1

Toulmin, C. (2005). Securing land and property rights in sub-Saharan Africa: the role of local institutions: Improving the Investment Climate Global Competitiveness Report. 27–54.

UN-Habitat. (2010). State of the World’s Cities 2010/2011: Bridging The Urban Divide. http://unhabitat.org/wpdm-package/cities-for-all-bridging-the-urban-divide-state-of-the-world-cities-20102011/?wpdmdl=111329.

United Nation, (2007) World Urbanization Prospects: New York Accessed 12th June, 2011.

Williamson, I., Enemark, S., & Wallace, J. (2005). Sustainability and Land Administration Systems. In Proceedings of the Expert Group Meeting.

World Bank, (2004). Involuntary Resettlement Sourcebook: Planning and Implementation in Development Projects. Washington D.C.

Zemenfes G. (2014). The Impact of Urban Sprawl on the Livelihood of Fringe Farmers in Mekelle Ethiopia Civil Service University, Ethiopia. 4(16).

Appendices

Appendix 1: - Survey Questionnaire for Sample Household Heads

Dear respondents, the main goal of preparing this questionnaire is collecting the first-hand data for the study or research titled "impact of urban expansion on land rights and livelihood of peri-urban farmers: a case from Dil-Yibza town. The questionnaire is designed to generate data that will be used to assess the impact of urban expansion on land rights and livelihood of Dil-Yibza town's peri-urban farmers to find a potential solution to the problem of insecurity of right on land and unsustainability of livelihood. Therefore, I want to thank you for your inevitable cooperative information providing for the required aims with full assurance of each data using only for focused finding confidentially. Please circle the choice of the appropriate answer and fill the blank space on each questionnaire her under.

Thank you

i. Background of Respondents

1. Kebele/Sub-city_____

2. Sex A. Male B. Female

3. Age A. 20-30 B.30-40 C. 40-50 D. 50-60 E. Above 60

4. Level of education A. Illiterate B. Read and Write only C. Primary (1-6)

D. Junior (7-8) E. Secondary (9-10) F. Tertiary (11-12) G. 12 and above

5. Marital status. A. Single B. Married C. Divorce

6. Household family size. A. 1-3 B. 3-5 C. 5-8 D. above 8

ii. The trend of Urban Expansion

1. Was there agreement between you and expropriated body during expropriation? A. Yes B. No
2. Do you agree that Dil-Yibza town is expanding rapidly?

A. Strongly agree B. Agree C. Disagree D. Strongly disagree

3. What is/are the factors affecting urbanization in Dil-Yibza town? (Multiple choice is possible)

A. Population growth B. Globalization C. Urban land policy D. Urban development plan

E. Geographic factor F. Poor urban land management

4. Which group of the population highly caused for now a day built residential settlement in town?

A. those come from rural kebeles B. Those come from other surrounding whereas

C. high population growth of town itself D. immigrants from the closer town

5. How your peri-urban farmland was lost?

A. Expropriated with compensation in kind B. Expropriated with compensation in cash

C. Expropriated with both in cash and in-kind D. Expropriated without compensation

6. Had you been made to participate in planning in urban expansion program and their implementation? A. Yes B. No

7. How urban expansion was rise? A. Through the illegal act of land grabbing

B. Through act of legal government official C. both

8. If your answer is "A" in question No, 7, how urban expansion was carried out in peri-urban farmers? (Multiple choice is possible)

A. Constructing houses on their farming land illegally

B. Constructing houses through purchasing farmland with money

C. Constructing houses through exchange peri-urban farmland by rural farmland

D. Constructing houses on common and state land illegally

9. If your answer is "A" in question No.8, what was the remedy taken by the responsible body?

A. Demolished the constructed house without paid appropriate compensation

B. Demolished the constructed house with paid appropriate compensation

C. Formalized the house that was constructed illegally D. No remedy

iii. The process of how expropriation of peri-urban rural land was carried out.

1. Do you know the process of expropriation? A. Yes B. No
2. If your answer is "yes" in question number 1, do you think that the urbanization program has been acting following the process? A. Yes B. No. Why? _____.
3. Had your awareness of the urbanization program before? A. Yes B. No
4. If your answer is "yes" in question no. 3, how you are aware of the program? A. Single legal personal letter B. Orientation by oral at everywhere C. Conference in hall D. By different media E. Information by another person

5. Did you agree that all expropriated peri-urban farmers got on a given (promised) compensation?

A. Strongly agree B. Agree C. Disagree D. Strongly disagree

6. If you disagree, how do you inform your claim for grievance hiring committees? _____.

How many days wait to get a response? _____.

iv. Livelihood activities pursued by expropriated peri-urban farmers.

1. Which category of economic activity was a base for your livelihood strategy before expropriation? A. Agricultural B. Non-agricultural

2. If your answer is "A" for question No 1, which is/are the income-generating activity you engaged in? (Multiple choice is possible)

A. Livestock Rearing B. Crop Cultivation C. Bee reproduction

D. Cash crop production E. Forestry

3. Do you believe that you get job opportunities easily currently than before expansion?

A) Yes B) No

4. If "yes" in question No.3, which job/s currently engaged as an income-generating for your day's livelihood? (Multiple choices are possible)

A. Crop cultivation B. Daily labor force C. Own business

D. By migrating far to other rural areas E. Small business (Tella, Araqi).

F. Government employment G. Working in someone's house H. Others_____

5. If your current livelihood is worse than the former, what situation/s caused shifting a means of your livelihood?

A. Farmland size decrease and unsustainability of enough crop production

B. Alternative job opportunity due to better development infrastructure

C. Replacement of farmland by financial compensation E. Absence of well-trained finance usage

D. Inadequate compensation for farmland expropriated F. Others specify _____ (if any)

6. If you say "No" for question No. 3 above, why? _____.

7. which condition do you think is/are forced to a new strategy? (Multiple Response Possible)

A. Inadequate access of capital for a job opportunity B. Lack of labor knowledge

C. Failure to adopt urban-related livelihood E. Limited farmland due to dispossession and fragmentation F. Lack of confidence due to violation of the land right

8. If the compensation you got is monetary or in cash, what was the way of delivering such compensation? A. Face to face delivery by hand B. Inter into your bank account number

C. Send to your return

9. If your answer is "B" in question number 8, how do you withdraw your money?

A. Drafting action plan for permanent improvement

B. Withdraw now and then for daily expenses

10. What was the use of land that you had been lost?

A. Farmland B. Forest C. Grassland D. Irrigation E. Residence F. Other

11. If the compensation you got is in-kind compensation, what type of land use was you gain?

A. Farmland B. Forest C. Grassland D. Irrigation E. Residence F. Other

12. In hectares what amount of farmland did you have before the expansion of town?

A. Above 7 ha B. 5-6 ha C. 3-4 ha D. 1-2 ha E. Below 1 ha

13. In hectares what amount of farmland did you have after being displaced?

A. Above 7 ha B. 5-6 ha C. 3-4 ha D. 1-2 ha E. Below 1 ha

14, How do you see the fertility level of the land that you got comparing with the former one?

A. Higher B. Equal C. Lower

15. If "lower" what responsible bodies made to equalize the lower fertility level of the farmland?

A. Add farmland B. Add money C. Not yet add

16. what amount of houseroom/classes/ did you have before displaced; In number?

A. Above 7 classes B.5-6 classes C.3-4 classes D. 1-2 classes

17. In number, what amount of houseroom/classes/ do you have after being displaced due to expansion?

A. Above 7 classes B.5-6 classes C.3-4 classes D. 1-2 classes

18. What factor caused for change of house rooms number? If any_____

19. What size of domestic animals listed in the Table below do you possess before and after displaced?

Kind of domestic animal	Before expansion	after expansion	remark
Oxen			`
Cow			
Sheep			
Goat			
Horse			
Donkey			
Poultry			

20. What was the factor affected your livestock size? If any_____

21. How will you express your social relationship and its value when you were at former altogether with your neighborhoods? A. Very high B. High C. Moderate D. Low E. Very low

22. What about social relationships and values after being displaced?

A. Very high B. High C. Moderate D. Low E. Very low

v. **The effectiveness of the legal and institutional support provided to expropriated peri-urban farmers to benefit from their land rights and carry out sustainable livelihoods.**

1. Did you think that there was legal and institutional support for affected farmers? A. Yes B. No

2. If your answer in question No. 1 is "yes", what were these legal and institutional supports? A. Economical B. Emotional C. Infrastructural D. Social E. Other

3. If your answer in question No. 1 is “yes” again, how do responsible bodies support you? A. Rent kebele house B. Borrow money C. Give commercial land by allotment D. Give farming land E. Create new job alternative by regrouping and form enterprises F. Built infrastructure facility G. Give awareness how to rehabilitate yourself

4. Who is/are expropriated (take) your land? A. Governmental office B. Private individuals C. Both

5. For what purpose you did lose your farming land? (Multiple choice is possible). A. To construct a road B. Health service C. School D. Warship E. Recreation F. For urban agriculture G. Condominium/ real estate house H. To offer the residential house for dwellers

6. If your answer in question No. 6 is “No”, what type/s of land right was violated? (Multiple choice is possible). A. Use right B. Transfer right C. Mortgage

D. Collect fruit E. Permanent improvement F. Inheritance G. Other

7. What was the status of your land rights security?

A. Very secure B. Moderate secure C. Secure D. Less secure E. No security

8. What is/are the effectiveness of legal and institutional support that you benefited from your land right to bring sustainable livelihood outcomes? A. Very effective B. Moderate effective C. Effective D. Less effective E. Not yet trial to support

9. Generally, is urbanization beneficial for peri-urban farmers? A. yes B. No

The End

Thank you for your cooperation

መግለጫ 1፡ መሬታቸው ለተነሳባቸው አባውራ/እማውራ የተዘጋጁ የናሙና ጥያቄወች

ውድ መልስ ሰጭወች፣ የዚህ ጥያቄ ዋና አላማ "የድል-ይብዛ ከተማ መስፋፋት በከተማው ዙሪያ ባሉ አርሶ አደሮች የመሬት መብትና በምግብ ዋስትናቸው ላይ ያለው ተጽዕኖ" በሚል ርዕስ ለማዘጋጀው የምርምር ጽሁፍ መረጃ ለመሰብሰብ ነው። ስለሆነም እርስዎ ለሚፈለገው አላማ ይሚሆን ሙሉ መረጃ ለመስጠት ፈቃደኛ ስለሆኑና ስላደረጉልን ትብብር እጅግ ከመጠን በላይ እያመሰገንኩ ከዚህ በታች ከተሰጡት በእያንዳንዱ አማራጮች ውስጥ መልስ ይሆናሉ ብለው ያሰቡን ምርጫ በማክበብ እና ክፍት ቦታውን በመሙላት መልስ ይሰጡ ዘንድ በትህትና እጠይቅዎታለው።

"አመሰግናለው"

i. የመልስ ሰጭው ማንነት

1. የሚኖርበት ክፍለ ከተማ/ ቀጠና_____
2. ጾታ ሀ/ ወንድ ለ/ ሴት
3. እድሜ ሀ/ ከ18-30 ለ/ ከ30-40 ሐ/ ከ40-50 መ/ ክ50-60 ሰ/ ከ60 በላይ
4. የትምህርት ደረጃ ሀ/ ያልተማረ/ች ለ/ ማንበብና መጻፍ የሚ/ምትችል ሐ/ ከ1ኛ-6ኛ ክፍል የተማረ/ች መ/ ከ6-8ኛ የተማረ/ች ሰ/ ከ8-10ኛ ክፍል የተማረ/ች ረ/ ከ10-12ኛ ክፍል የተማረ/ች ሠ/ ከ12ኛ ከፍል በላይ የተማረ/ች
5. የጋብቻ ሁኔታ ሀ/ ያላገባ/ች ለ/ ያገባ/ች ሐ/ የፈታ/ች
6. የቤተሰብ ብዛት ሀ/ ከ1-3 ለ/ ከ3-5 ሐ/ ከ5-8 መ/ ከ8 በላይ
7. ስራ ሀ/ አርሶ አደር ለ/ የመንግስት ሰራተኛ ሐ/ የቀን ሰራተኛ መ/ ነጋዴ ሰ/ ሹፌር ረ/ ሌላ

ii. የከተማው እድገት አዝማሚያ

1. በእርስዎና መሬቱን ባነሳው አካል መካከል ስምምነት ነበር? ሀ/ አዎ ለ/ የለም
2. የድል-ይብዛ ከተማ በፍጥነት እያደገች ነው ብለው ይስማማሉ?

   ሀ/ በጣም እስማማለው ለ/ እስማማለው ሐ/ አልስማማም መ/ በጣም አልስማማም
3. ለድል-ይብዛ ከተማ መስፋፋት ትጽዕኖ ያሳደረው የትኛው ነው? (ከአንድ በላይ መምረጥ ይቻላል)

   ሀ/ የህዝብ ቁጥር መጨመር ለ/ የህዝቡ በሃብት መበልጸግ ሐ/ ከገጠር ወደ ከተማ ፍልሰት

   መ/ የከተማ የመሬት ፖሊሲ ሰ/ የከተማው እድገት ፕላን ረ/ የመሬቱ አቀማመጥ ምቹነት

   ሠ/ ደካማ የሆነ የከተማ መሬት አሰራር መኖር
4. ለከተማው እድገት ምክን ያት የሆነው ህዝብ ከየት የመጣ ነው? ሀ/ ከገጠር ቀበሌ ለ/ ከሌላ አካባቢ ሐ/ ከዛው የከተማው ህዝብ መጨመር መ/ ከጎረቤት ከተማ የመጡ
5. ከእርሻ መሬትዎ በምን መልኩ ተፈናቀሉ? ሀ/ የብር የካሳ ግምት በመክፈል

   ለ/ ትክ መሬት በመስጠት ሐ/ ሁለቱንም የብርና የትክ ካሳ በመስጠት መ/ ያለካሳ
6. በከተማው የእድገት አወሳሰን ፕሮግራም እና በፕላን/እቅድ አፈጻጸም እና ትግበራ ላይ ተሳትፈው ያውቃሉ? ሀ/ አዎ ተሳትፌያልው ለ/ አልተሳተፍኩም
7. እንዴት የከተማው እድገት ፈጠነ?

   ሀ/ በህገ ወጥ መንገድ መሬትን በመውረር ለ/ በህጋዊ መልኩ በመንግስት አካል ተመርቶ ሐ/ በሁሉም
8. በጥያቄ ቁጥር 6 ላይ መልስዎ "ሀ" ከሆነ፣ በህገ ወጥ መልኩ ሊስፋፋ የቻለው እንዴት ነው?

ሀ/ አርሶ አደሮች ሳያስፈቅዱ ከመሬታቸው ላይ ግንባታ በመገንባት

ለ/ የእርሻውን መሬት በብር ገዝተው ግንባታ በመገንባት

ሐ/ የከተማውን ዙሪያ እርሻ መሬት በገጠር እርሻ መሬት ለውጠው ግንባታ በመገንባት

መ/ በህገ ወጥ ከወልና ከመንግስት መሬት ላይ ግንባታ በመገንባት

9. በጥያቄ ቁጥር 7 ላይ መልስዎ "ሀ" ከሆነ፣ የመንግስት አካል የወሰደው ርምጃ ምንድን ነበር?
ሀ/ የተገነባውን ግንባታ ያለካሳ አፈረሰው ለ/ የተገነባውን ግንባታ ካሳ ከፍሎ አፈረሰው

ሐ/ በህገወጥ የተገነባውን ገንባታ ህጋዊ አድርጎ አትጸደቀላቸው መ/ ምንም ርምጃ አልወሰደም

iii. በከተማው ዙሪያ ያሉ የእርሻ መሬት ለህዝብ ጥቅም ሲነሳ የአነሳሱ ሂደት

1. ለህዝብ ጥቅም ሲባል መሬት የሚነሳበትን ሂደት ያውቃሉ? ሀ/ አዎ ለ/ አላውቅም
2. የጥያቄ ቁጥር 1 መልስዎ "አዎ" ከሆነ፣ የመሬት አነሳሱ ሁኔታ ሂደቱን የጠበቀ ነው ብለው ያምናሉ?
ሀ/ አዎ ለ/ አላምንም ለምን?_____::
3. ምሬትዎ እንድሚነሳ ቀደመው እውቅና ነበርዎ? ሀ/ አዎ ለ/ የለኝም
4. ምልስዎ "አዎ" ከሆነ እንዴት ሊያውቁ ቻሉ?
ሀ/ በደብዳቤ ለ/ በቃል ሐ/ በስብሰባ መ/ በሚዲያ ሰ/ በውሬ
5. ከመሬትዎ ሲፈናቀሉ በመጀመሪያ በተገመተልዎት ካሳ ልክ ትክክለኛ ግምቱን አግኝቻለው ብለው ይስማማሉ?
ሀ/ በጣም እስማማለው ለ/ እስማማለው ሐ/ አልስማማም መ/ በጣም አልስማማም
6. ካልተስማሙ ቅሬታዎን እንዴት ለቅሬታ ሰሚ ኮሚቴ አሳወቁ?_____ በምን ያህል ጊዜ ውስጠስ መልስ አገኙ?_____::

iv. መሬታቸው የተነሳባቸው አርሶ አደሮች የምግብ ዋስትና እንቅስቃሴ

1. መሬትዎ ከመነሳቱ በፊት በዋናነት ለምግብ ዋስትናዎ መረጋገጥ መሰረት የሆነው የኢኮኖሚ እንቅስቃሴ የትኛው ነበር? ሀ/ ግብርና ለ/ ከግብርና ውጭ
2. ለምግብ ዋስትናዎ መሰረት ግብርና ነው ካሉ፣ የገቢ ምንጭዎ የትኛው እንቅስቃሴ ነበር?
ሀ/ እንሣት እርባታ ለ/ ጥራጥሬ ምርት ሐ/ ንብ እርባታ መ/ ምንዛሬ የሚያስገኙ ጥራጥሬወችን በማምረት ሰ/ ደን ረ/ ሌላ_____
3. አሁን ለገቢ ምንጭ የሚሆን ሰራ አለዎት? ሀ/ አዎ ለ/ የለኝም
4. ሰራ "አለኝ" ካሉ፣ ለገቢ ምንጭዎ መሰረት የትኛው የስራ ዘርፍ ነው? ሀ/ ጥራጥሬ ምርት ለ/ የቀን ስራ ሐ/ የንግድ ስራ መ/ ሌላ ገጠር ሂዶ በመስራት መ/ ትንንሽ የንግድ ስራወችን(ጠላ፣ አረቂ...) በመስራት ሰ/ የመንግስት ሰራ ረ/ ከሰዎች ቤት ተቀጥሮ በመስራት ሠ/ ሌላ_____::
5. አሁን ያለዎት የኑሮ ሁኔታ ሳይፈናቀሉ ከነበረው የኑሮ ሁኔታ ያነሰ ከሆነ ለኑሮዎ መቀየር/ዝቅ ማለት ምክንያቱ ምንድን ነው?(ከአንድ በላይ መምረጥ ይቻላል)

ሀ/ የመሬቱ መጠን ማነስና በቂ የእህል ምርት አለማግኜት ለ/ የኢንፍራስትራክቸር እድገት በመኖሩ ብዙ

የስራ አማራጭ መፈጠሩ ሐ/ የእርሻው ቦታ በብር ተቀይሮ መከፈሉ

መ/ ለእርሻ መሬቱ በቂ የሁነ ካሳ አለርመከፈሉ ሰ/ የካሳውን ብር ለመጠቀም በቂ ስልጠና አለመኖሩ

6. በጥያቄ ቁጥር 3 ላይ መልስዎ የለም ካሉ ለምን?_____::
7. አሁን ኑሮዎን እንዳያሻሽሉ ያደረገዎት ምክኛት ምንድን ነው?(ከአንድ በላይ መምረጥ ይቻላል)

ሀ/ ለስራ እድል ምቹ የሆነ ካፒታል አለመኖሩ ለ/ ለስራ በቂ እውቀት አለመኖር ሐ/ በቂ የመሬት ግምት አለመሰጠቱ መ/ ከከተማው ጋር የተያያዘ የኑሮ ሁኔታ መፍጠር አለመቻሉ ሰ/ የይዞታ መሬቱ በመቆራረጡ ምክኛት ውስን የእርሻ መሬት ምኖሩ ረ/ የመሬት መብታቸው በመጣሱ ምክኛት ፈላጎት አለምኖር

8. የተሰጠዎት ካሳ የብር ካሳ ከሆነ፣ ብሩን እንዴት ተቀበሉ?
   ሀ/ ፊት ለፊት በእጅ ተቀበሉ ለ/ በቡክ አካውንት ገባልዎ ሐ/ ለተዎካይዮ ተላከልዎ
9. የተሰጠዎ ካሳ በብር ከሆነ ብሩን በምን መልኩ አውጥተው ተጠቀሙ?
   ሀ/ ለቋሚ ግንባታ እቅድ በመንደፍ ለ/ ለእለት ወጭዎ በፈለጉበት ጊዜ
10. የተነሳብሆ መሬት ለምን ይጠቀሙበት ነበር?
    ሀ/ ለእርሻ ለ/ ለደን ሐ/ ለድጦሽ መ/ ለአትክልት ሰ/ ለመኖሪያ ረ/ ለሌላ
11. የተሰጠውት ትክ መሬት ከሆነ ትክ የተሰጠዎ መሬት ለምን ጥቅም የሚውል ነው?
    ሀ/ ለእርሻ ለ/ ለደን ሐ/ ለድጦሽ መ/ ለአትክልት ሰ/ ለመኖሪያ ረ/ ለሌላ
12. ሳይፈናቀሉ በፊት የነበርዎ የመሬት መጥን በሄክታር ምን ያህል ነበር?
    ሀ/ ከ7ሄ/ር በላይ ለ/ ከ5-6 ሄ/ር ሐ/ ከ3-4 ሄ/ር መ/ ከ1-2 ሄ/ር ሰ/ ከ1 ሄ/ር በታች
13. ከተፈናቀሉ ብኋላ ያለዎት የመሬት መጠን በሄክታር ምን ያህል ነው?
    ሀ/ ከ7ሄ/ር በላይ ለ/ ከ5-6 ሄ/ር ሐ/ ከ3-4 ሄ/ር መ/ ከ1-2 ሄ/ር ሰ/ ከ1 ሄ/ር በታች
14. ትክ የተሰጠዎ መሬት የለምነት ሁኔታ ከበፊቱ ጋር ሲነጻጸር እንዴት ነው?
    ሀ/ ከፍተኛ ለ/ ተመጣጣኝ ሐ/ ዝቅተኛ
15. መልስዎ "ዝቅተኛ" ከሆነ ዝቅተኛነቱን ለማመጣጠን ባለድርሻ አካላት ምን አደረጉ?
    ሀ/ መሬት በካሬ ጨምረው ሰጡ ለ/ የብር ካሳ ጨምርው ሰጥዕ ሐ/ ምንም አልተጨመሩም
16. መልስዎ "አዎ" ከሆነ የተነሳብዎ የቤት ክፍል መጥን በቁጥር ስንት ነበር?
    ሀ/ ከ7 ክፍል በላይ ለ/ ከ5-6 ክፍል ሐ/ ከ3-4 ክፍል መ/ ከ1-2 ክፍል ሰ/ ከ1 ክፍል በታች
17. አሁን ያለዎ የቤት ክፍል መጥን በቁጥር ስንት ይሆናል?
    ሀ/ ከ7 ክፍል በላይ ለ/ ከ5-6 ክፍል ሐ/ ከ3-4 ክፍል መ/ ከ1-2 ክፍል ሰ/ ከ1 ክፍል በታች
18. አሁን ያለዎ የክፍል ለውጥ ካለ፣ ለመለወጡ ምክኛቱ ምንድን ነው? _____::
19. ሳይፈናቀሉና ከተፈናቀሉ በኋላ ያለው የቤት እንስሳት መጥን ቀጥሎ ባለው ሰንጠረዥ ሙሉ?

የቤት እንስሳ አይነት	ከመፈናቀልዎ	ከተፈናቀሉ ብኋላ	ምርመራ
በሬ			
ላም			
በግ			
ፍየል			
ፈረስ			
አህያ			
ዶሮ			

20. ያለዎ የቤት እንስሳት መጠን ከበፊቱ ከተለየ እንዲለይ ያደረገው ትጽዕኖ ምንድን ነው?_____ ::

21. ከመሬትዎ ከመፈናቀልዎ በፊት ከጎረቤትና ከአካባቢው ማህበረሰብ ጋር የነበርዎ ማህበራዊ ግንኙነት እንዴት ነበር? ሀ/ በጣም ከፍተኛ ለ/ ከፍተኛ ሐ/ መካከለኛ መ/ ዝቅተኛ ሰ/ በጣም ዝቅተኛ

22. ካሬ ከተፈናቅሉ ብኋላስ ከጎረቤትና ከአካባቢው ማህበረሰብ ጋር የነበርዎ ማህበራዊ ግንኙነት እንዴት

ሀ/ በጣም ከፍተኛ ለ/ ከፍተኛ ሐ/ መካከለኛ መ/ ዝቅተኛ ሰ/ በጣም ዝቅተኛ

v. በከተማው ዙሪያ የሚኖሩ አርሶ አደሮች የመሬት የመጠቀም መብታቸውን ተጠቅመው ቋሚ የሆነ የምግብ ዋስትናነ እንዲያረጋግጡ ህጋዊና ተቋማዊ ድጋፍ

1. መሬታቸው ለተነሳባቸው አርሶ አደሮች ህጋዊና ተቋማዊ ድጋፍ ተሰቶ ነበር? ሀ/ አዎ ለ/ አላስብም
2. በጥያቄ ቁጥር 1 ላይ ምልስዎ "አዎ" ክሆነ፣ የተሰጠው ድጋፍ ምን ነበር?
   ሀ/ የኢኮኖሚ/የገንዘብ ለ/ ስነ ልቦናዊ ሐ/ የመሰረተ ልማት መ/ ማህበራዊ ሰ/ ሌላ
3. አሁንም በጥያቄ ቁጥር 1 ላይ ምልስዎ "አዎ" ክሆነ፣ ሃላፊነት ያለባቸው አካላት በምን መልኩ ድጋፍ አደረጉ? ሀ/ የቀበሌ ቤት በማከራየት ለ/ የገንዘብ ብድር በመስጠት ሐ/ የድርጅት ቦታ በምደባ በመስጠት መ/ የእርሻ መሬት በመስጠት ሰ/ በኢንተርፕራዝ በማደራጀት የሠራ እድል መፍጠር
   ረ/ የተነሳባቸው በኢንቨስትመንት ከሆነ ከዚህ እንዲጋሩ በማድረግ ሠ/ መሰረተ ልማት በማሟላት ሸ/ እራስን መልሶ ለማቋቋም ሰልጥዕና በመስጠት ቀ/ የገንዘብ አያያዝ ስልጠና በመስጠት
4. መሬትዎን ያነሳብዎ ማን ነበር? ሀ/ የመንግስት አካል ለ/ የግል ባለሃብት ሐ/ በሁለቱም
5. መሬትዎ የተነሳው ለምን አላማ ነበር? (ከአንድ በላይ ምርጫ የቻላል)
   ሀ/ ለመንገድ ለ/ ለጤና ጣቢያ ሐ/ ለት/ቤት መ/ ለእምነት ተቋም ሰ/ ለመዝናኛ

ረ/ ለከተማ ግብርና ሠ/ ለኮንዶሚኒየም/ አፓርታማ ሸ/ ለከተማው ነዋሪ የመኖሪያ ቤት መስሪያ

6. ሁሉም የከተማው ዙሪያ አርሶ አደሮች በመሬታቸው ላይ የመጠቀም ሙሉ መብት አላቸው ብለው ያምናሉ? ሀ/ አዎ ለ አላምንም
7. በጥያቄ ቁጥር 6 ላይ ምልስዎ "አላምንም" ክሆነ፣ የተጣሰባቸው የመብት አይነት የትኛው ነው? (ከአንድ በላይ ምርጫ የቻላል) ሀ/ የመጠቀም መብት ለ/ የማስተላለፍ መብት ሐ/ መሬትን አስይዞ ገንዘብ የመበደር መብት መ/ ከመሬቱ የፈራውን የመጠቀም መብት ሰ/ ቋሚ ማሻሻያ የማድረግ መብት ረ/ የማውረስ መብት ሠ/ ሌላ
8. የመሬት መብትዎ ደህንነት ምን ያህል ነው? ሀ/ በጣም ተጠብቋል ለ/ በአብኛው ተጠብቋል ሐ/ ተጠብቋል መ/ ብዙም አልተጠበቀም ሰ/ ምንም ድህንነቱ አልተጠበቀም
9. ሙሉ የመሬት መብታችሁን በመጠቀም ቋሚ የምግብ ዋስትናችሁን ከማረጋገጥ አኳያ የህግ እና ተቋማዊ ደጋፍ ተግባራዊነቱ ምን ያህል ነው? ሀ/ በጣም ተግባራዊ ለ/ በአብዛኛው ተግባራዊ ሐ/ በመጠኑ ተግባራዊ መ/ በትንሹ ተግባራዊ ሰ/ ምንም መከራ የለም
10. በአጠቃላይ የከተማ መስፋፋት በከተማው ዙሪያ ላሉ አርሶ አደሮች ጠቃሚ ነው ብለው ያምናሉ?
    ሀ/ አዎ ለ/ አላምንም

መጨረሻ

'ስለ ትብብርዎ ከልብ እናመሰግናለን'

Appendix 2:- The sample Checklists for Observation in the Study Area

1. The land escape: flat, hilly, mountainous

2. Environment: safe to urbanization, unsafe to an urbanization

3. The transportation car, the gari, the horse, the donkey, the cycle, on the foot

4. Land uses the land cover of the study area.

5. Off-farm and on-farm activities had practiced in the study area.

6. An infrastructure in the town: access roads, water, an electric supply the telecommunication, etc.

7. Natural resources development interventions in the town; the tree planting, grazing an improvement, soil, and water conservation activities are done, an irrigation scheme, a spring development, etc.

8. The intention of affected farmers and urban dwellers about an urban expansion: highly interested, low interested, badly interested, ----------.

9. Types of an expansion: horizontal, vertical, both

10. The status of the house that constructs in the town: modernized the house, the mud house, the G+1 and above,

Appendix 3:-Interview Guideline to Elder Households

i. **Background of the respondents: -**

1. address----------age------- sex -------, level of literacy----------job----------marital status ---------- family size---------

ii. **Trend of urbanization**

1. When Dil-Yibza town established? ------- By whom? -------When got the name sub-municipality? --------- municipality? ----------town development and construction office?
2. Is their rapid expansion in Dil-Yibza town? If yes, what are the case of rapid expansion? Civilization, population growth, urban land policy, demographic characteristics, if another specify----------.
3. When the rapid expansion has occurred? List by periodic year and why? Before 2006, 2006-2011, 2011-2016, 2016-2021
4. How urbanization was raised? Legally, illegally.
5. How were the peri-urban farmland and house transferring techniques?
6. How was the participation of affected people during expropriation?
7. Do you think that urbanization has a positive factor for peri-urban farmers? If any, why? Job opportunity, land right security, good land administration system, better living conditions.

iii. **Process of expropriation carried out**

1. For what purpose expropriation was done? For Private investment, for infrastructure service (education, health, ...), religious service, local residential association,
2. Do you think that all peri-urban farmers have awareness about the land expropriation process? If yes, how? By conference, single letter, media, other means…
3. Argument on payment for property lost at expropriation; kind of compensation, right to compensate, value estimation for property, fertility of farmland, if other specify--------
4. How was affected farmers reaction during the time of expropriating; they are volunteers, they are not volunteering, any cases for other reactions (if any)?
5. What type of compensation expropriated farmers got during expropriation? In cash or in-kind or in both?
6. Do you think that the compensation was enough to survive food access for affected farmers?

iv. **Livelihood activities for affected people**

1. What was the livelihood condition of households before and after urban expansion; income sources they repeatedly engaged, access to job opportunities, early reaction to the livelihood strategy

2. What are factors that affect shifted livelihood approach of peri-urban farmers after being displaced?
3. Which one is better than comparing the current living status with the previous? Why?
4. What is/are the reason for such compared result?

v. **Legal and institutional support**

1. Are there legal and institutional support for expropriated farmers?
2. If yes, what are these special supports? Economical, emotional, infrastructural…
3. Do you believe that informal settlement is expanding at fringe; informal land market, cases for selling farmland
4. Any other issues you would like to raise: ----------.

Appendix 4:-Interview Guideline to Responsible Bodies

i. Background of respondents:

1. address----------age------- sex -------,
2. Where are you having been employed? BoRLAU, municipality, urban administration, woreda administration, kebele rural land administration, kebele rural land committee.
3. How long have you been employed? Below 1 year, 2-4 years, 5-8 years, 8-10 years, above 10 years.

ii. Trend of urbanization

1. Who is responsible for the urbanization program? Land related employer, all government employers, landlords, all people, other----------
2. Do you believe that Dil-Yibza town is rapidly expanding? History of town expansion, the status of urban growth, infrastructural facilities, socioeconomic conditions
3. For what purpose expropriation was done? For Private investment, for infrastructure service (education, health, ...), religious service, local residential association,
4. What type of compensation was/were paid? Monetary, in-kind, both
5. How rural land is transferring to urban land? How do you formalize farmers' land right?
6. What is the role of people's participation in the urbanization program?
7. How urban expansion was rise? The illegal act of land grabbing, legally by government officials. If illegal, what was the remedy?
8. How people got the farming land for the urbanization program? Their farming land, purchasing farmland with money, exchange peri-urban farmland by rural farmland, hold common and state land illegally, legal distribution of land by lease or allotment following the town plan
9. Which group of the population highly caused for built residential settlement in the town? Come from rural kebeles, come from another surrounding, high population growth of the town itself, immigrants from closer town. Investment program implementation

iii. Process of expropriation carried out

1. Do you think that all peri-urban farmers have awareness about these processes?
2. How many times create awareness for the people about the rule? What are the methods of the announcement?
3. What problems were raises among the landholder during the urbanization program? What was the reason? How do you give the solution?

4. How was the feeling of landholders during the time of expropriation; are they volunteered, any cases for their reaction (if any)

iv. Livelihood activities for affected people

1. What was the people's livelihood activity before and after expropriation?
2. What are factors that affect shifted livelihood approach of peri-urban farmers after being displaced?
3. Do you agree that, is the livelihood of expropriated farmers sustainable for the future? Why?
4. What method do you think makes sustainable livelihood in peri-urban farmers?

v. Legal and institutional support

1. How do you perform the legal and institutional support for the affected people?
2. How you built formal land right on affected farmers' land who have an incentive to invest in their land?
3. How was tactics of payment for property lost at expropriation; right and value estimation for property and also stocks like farmland
4. Do you think that all peoples have incentives to make some improvement on their land? Why?
5. Do you believe that municipality doing for housing problem; a way of transferring communal built houses, consideration for low income or poor households
6. How was the situation of informal settlement around town; condition around the outer part, stakeholder of informal housing, the strategy of mitigating squatter settlement
7. Any other issues you would like to raise: ----------.

Appendix 5: -Checklists for FGD Participants

Warm-up: Some argue that peri-urban farmers benefit from urban expansion. Others, on the other hand, see urbanization as the polar opposite of its value. So, which side of the argument are you going to support? What is the reasoning for this?

1. What are your thoughts on the town's urbanization trend?
2. A discussion of peri-urban farmers' livelihood conditions before urban growth, including the revenue sources they used frequently, access to job options, and early reactions to the approach.
3. A discussion of peri-urban farmers' livelihood strategies, including community-engaged income activities, new livelihood strategies for households that rely on the day, reactions to livelihood situations, and work prospects.
4. A discussion of the estimated elements for a shifted livelihood approach in the aftermath of urban expropriation.
5. How do you characterize the expropriating procedures on peri-urban farmers during the urban development program in terms of pre-informing, any invitation for dialogue, and the status of expropriated family members?
6. Discuss the community's attitude to urban expansion policies and strategies.
7. Discussion of compensation for property taken by expropriation, including the entitlement to compensation, property valuation, and farmland stocks.
8. Deliberations on whether the expropriation process follows the law.
9. What benefits and drawbacks do you believe urbanization will bring to your community, particularly in terms of land rights and livelihood?
10. Discussion on the supportive response body now in place to mitigate the negative effects of urbanization on expropriated farmers' land rights and livelihoods, as well as to take the initial steps toward rehabilitation and ensuring secure rights.

The end

Thank you for your cooperation

==========///==========