

# Livelihood Changes, and Related Effects of Urban Expansion on Urban Peripheral Communities: The Case of Gondar City: ANRS, Ethiopia

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## Abstract

This study was undertaken at peri-urban area of Gondar city aiming to examine livelihood changes and related effects of urban expansion on urban peripheral communities. To this effect, samples of 293 households were taken for this cross-sectional study. Accordingly, the study employed both quantitative and qualitative approaches. The primary data was collected through survey questionnaires, key informant interview and focus group discussion; and secondary data from various sources were complimented to the study. Descriptive statistics were used to analyze the quantitative data whereas the qualitative data was analyzed in thematic analysis via the form of narratives, summarization, and comparisons. The finding revealed that most of the respondents were uneducated and owned small farming land size. From the total sample respondents, 76% were expropriated partial of their land and 24% were disposed completely by the city expansion program that affected the production and productivity of farmers. So that, most evicted people are engaged in small trade, house rent and daily labor while they remain in agricultural activities by renting land. Urban expansion declined the livelihood of farmers and perhaps affected their social network and relationships. In addition, it created family disturbance, conflict in neighbors and seasonal and permanent migration on the evicted households. Therefore, the local government, NGOs, higher education institutions have to be concerned to resolve the negative consequences of urban expansion on the surrounding farming households.

**Keywords:** peri-urban, periphery, livelihood, urban expansion, expropriation, and affected households.

## 1. Introduction

Urbanization is seen as an effect of the global phenomenon, presenting the migration process of the population organizing in urban areas, areas considered to be true centers of progress that offer multiple options to residents (Dociu and Dunarintu, 2012). The proportion of urban population in Africa is 40% with average annual rate of 1.1% (UN, 2014). Particularly, it becomes high in eastern Africa which was least urbanized sub-region of the continent. As a part of this fastest urbanizing sub-region of Africa, Ethiopia is treated among the world's least urbanized and fast urbanizing countries. The UN (2014) report indicated that around 19% (about 18.4 million) of the Ethiopian population living in urban areas and urbanizing by the rate of 2.3 between 2010 and 2015.

Uncontrolled urbanization, which directly results urban expansion, in most Ethiopian cities negatively affects the natural environment and livelihoods of peri-urban areas. It determine changes regarding the organization of places, economic and social phenomenon, but these effects exceed the territorial barriers and generate broad impact particularly for the surrounding rural communities (Muluwork, 2014). Unrestrained urban expansion engulfs the surrounding land that lead to reduction of farm size or a complete dispossession of agricultural land of peri-urban households. (Bhatta, 2010, Alemu and Amare, 2015).

According to Leulseged et al (2011), since displaced farmers are not educationally developed, most of them engaged in less paid and time consuming activities which may merely cover their daily needs. Hence, the eviction of urban periphery households deepens poverty, destroys communities, and adversely impacts the future sustainable livelihood of people. Other studies reveal that the consequences worsening the situation of evicted households in terms of housing, employment, education, physical and mental health, family life, culture and well-being (Keflu, 2012 and Leulseged et al, 2011 and Zemenfes et al, 2014).

Similarly, Gondar, which is one of the oldest cities of Ethiopia, next to Axum and Lalibela, is rapidly expanding driving from population growth (Keflu, 2012 and Eyaya, 2014). While such problems are observed, no detail studies have been found in the study area. However, there are few studies which focused on the livelihoods strategies (Keflu, 2012), and land use and land cover change (Eyaya, 2014) of the urban fringe areas of Gondar city. The above two studies overlooked the detail of livelihood impacts and particularly the social effects of displaced farming households. The impact of urbanization on farmers' sustainable employment, asset as well as its impact on social network and social bond change are not yet assessed so far. Therefore, this study is intended to examine the livelihood changes and related effects of urban expansion on affected households (AHs) in urban edge communities. Hence, the following specific objectives were addressed throughout the study.

- Identifying the economic problems of evicted people resulted from city expansion in the study area
- Describing the livelihood changes and sustainability of urban edge households; and

- Examining the social problems of evicted people resulted from city expansion

## 2. Literature Review

This section is emphasized on the description of literatures related to this study whereby the researcher tried to discuss the finding of previous researches and reports about topics like sustainable livelihood, cause and consequences of urban expansion and related theoretical frameworks.

### 2.1. What is sustainable livelihood?

Different investigations give distinct explanations for what the term sustainable livelihoods means. (Krantz, 2001:p.1) defined sustainable livelihoods as:

*A livelihood comprises the capabilities, assets (stores, resources, claims and access) 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 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.*

The sustainable livelihood approach is an analytical framework that helps us to understand how people change different resources they access to their livelihoods. Livelihood approach tries to portray the interrelation between people, the physical environment and government, and how these interactions affect livelihood strategies and food security with in a simplified framework possible. It facilitates an understanding of the linkages between people's livelihood strategies, their asset status, and way of using available natural resources (Krantz, 2001).

### 2.2. Theories of Urban expansion

Different theoretical explanations attempted to see the causes and consequences of urban expansion particularly on peri-urban agricultural communities. This study was benefited from Barnes et al (2001) three theories of urban expansion. Population growth theory argued that an increment in urban population either in natural growth or in rural to urban migration explodes to the surrounding of city. The economic growth theory focuses on the expansion of economic base such as per capita income and employment rate increases demand of new housing places and relater infrastructures. In addition, the establishments of new industries at urban periphery fired farmers from their land possession. The third reason is government development policies which emphasized on governments action to use restrictive land policies for urban development. According to this perspective, there may be dissimilarities in regulating development and land use strategies which consequently hinder the economic and social phenomenon of urban edge farming communities (Barness et al, 2001). Besides, the absence of proper planning policies and failure to enforce such policies are source for unlimited urban expansion that disturb zoning structures (residential, commercial industrial, institutional and other land uses) and finally threats urban surrounding agricultural peoples of developing countries.

On the other hand, the sociological urban expansion theory emphasized the importance of human agency, social relation, social networks and socio cultural changes in bringing about special, political, economic and other changes (Briassoulis, 2000). This theory was directly interlinked with the human ecological theories which were developed by Robert park and Ernest Burgess in 1925 relating the human behaviors with their physical and social environment in urban and peripheral areas. To be more precise, it is vital to see the following conceptual framework which attempted to show driving forces, processes and effects of urban expansion on Peri- urban peoples.

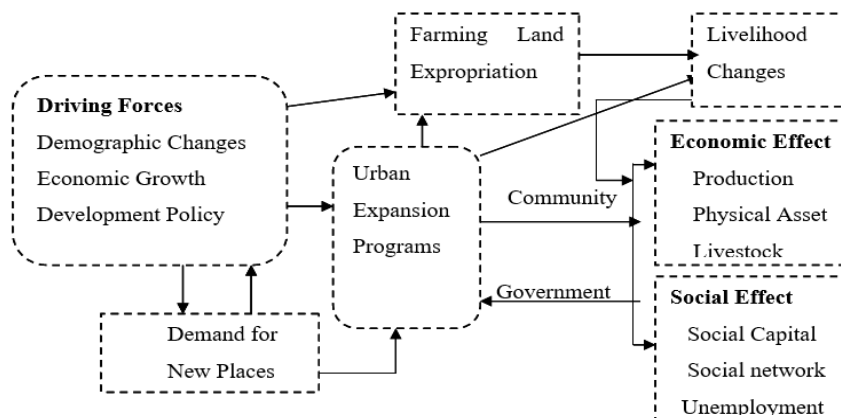


Figure1: Conceptual frame work for effects of urban expansion

### 3. Methodology

#### 3.1 Description of the study area

**Geography:** Gondar is situated in North western administrative zone<sup>1</sup> of Amhara region in the high land of northern Ethiopian Plateau at 12°36'N37°28'E North latitude and 12.6° 37.467°E Longitude and at an altitude of 2200 meter above sea level. It is relatively located north of Bahr Dar (the capital city of Amhara regional state), east of Metemma, south east of Semien National park. The city is found at 727 Km distance from Addis Ababa (the capital city of Ethiopia and the seat of the Africa Union). Its mean annual temperature ranges between 14<sup>0</sup> C and 28°C whereas the mean annual rainfall is 1438.5.m. Gondar is characterized by varied landscape, dominantly covered with ragged hills and plateau formations, imparts variable temperatures.

**Demography:** According to the 2014 CSA report, the total population of Gondar city was 306246 in which 149970 were males and 156276 were females. Regarding to the age structures, 32.5% are at the age category of 0-15, 63.9 % are between the age ranges of 16-64 and 3.6 % are 65 and above age groups. The current annual population growth of Gondar city is 2.8 per cent which is almost less than by 0.4 per cent from the national average population growth rate. As its population increases, the size of the city become enlarged and also expands to peripheral rural communities. So that, the city of Gondar was restructured since 2014 from 21 kebeles<sup>2</sup> to 12 sub city administrations and one sub municipal administration (Teda). In addition, it has also 11 rural kebeles bounded within the city administration. Moreover, the city has currently extended to different direction and engulfed the farming land of rural communities, particularly: to Ayra (11.75 Ha), Azezo T/Hahmanot (302.284 ha), Belajig Dabirka (55.91 ha). Loza Maryam (29.75 ha) and Derasgie Maryam (32.14 ha) (Gondar city municipality report,2015).

#### 3.2 Research Design

This cross-sectional study was undertaken from primary and secondary sources in relevant data collection techniques. The study followed mixed research approaches. In quantitative approach, sample survey was used whereas for qualitative approach, key informant interview and focus group discussion /FGD/were employed.

#### 3.3 Data collection techniques

The target population of the research was the agricultural rural communities (particularly 1240 affected households due to the expansion of city) who are found on the surrounding of the city. Survey method, which is one of the most widely primary data gathering methods in social research (Creswell, 2003), were employed to gather quantitative data. Consequently, 293 sample individuals (representing household) were obtained via the Cochran (1977) stratified sample size formula.

$$n = \frac{z^2 \times p(1-p)}{m^2}$$

**n** - required sample size

**z** - confidence level at 95% (standard value of 1.96)

**p** - estimated proportion of an attribute that is sent in the population (0.5)

**m** - margin of error at 5% (standard value of 0.05)

To this effect, a proportional stratified random sampling technique was used from the list of households in five expansion communities and structured questionnaires were prepared which include both close-ended and open-ended questions.

In addition to the survey questions, the study also used key informant interview and focus group discussion (FGD) to get more insight about the expropriation process and its impact on households. Accordingly, a total fifteen key informants (ten from evicted households and five from concerned government officials) were deliberately selected. As well, three FGD (with eight members) were purposively organized for discussion at Azezo T/Haymanot, Bilajig and Loza Maryam where majority of evicted people are found.

#### 3.4 Method of Data Analysis

The study employed descriptive statistics such as percentage and frequencies to analyze categorical data and to understand the relationship and associations between variables. Statistical package for social sciences (SPSS version 20) software program was used for analyzing quantitative data. The qualitative data was analyzed thematically via organizing and sorting the data in categories. Finally concurrent triangulation was undertaken to cross check the quality of data.

<sup>1</sup> Zone is an administrative level which composed various districts

<sup>2</sup> Kebele is a local term which refers to the smallest administration unit in Ethiopia

## 4. RESULT AND DISCUSSION

### 4.1. Economic Effects of Urban Expansion on Land Evicted Peoples

The survey result shows that 73(24%) were completely displaced from their farming land and 220(76%) of respondents had partially dispossessed. As a result, large numbers of the farmers lost their farm land that negatively affected their crop production, assets and livestock.

#### 4.1.1. Reduction of Production and Productivity

The loss of farmland and the amount of compensation money is directly associated with the production and productivity of farmers. Those who were having less amount of land size and receiving less amount of money are more likely declining in their production and productivity. Majority of respondents were holding less than one hectare so that they earned less amount of money compensation for future livelihoods. Hence, a considerable proportion of respondents (92.8%) were declining in their annual production of crops; 3.9% of respondents were not changing in production and only 3.3% are increasing by the amount of production. Therefore, the expansion program of Gondar city diminished crop production of farmers, which is the most significant means of livelihoods, residing in peri urban places.

#### 4.1.2. Loss of Assets of the Land

Livelihood assets in the context of rural agricultural communities of Gondar city include permanent tree and fruits such as eucalyptus tree (*Baherzaf*), acacia (*Girar*) as well as other large and small trees. Urban expansion affected peri-urban farmers getting of income from trees in such a way that when number of trees decreased, income generated from permanent trees also showed decline. One of the key informants was saying that “*I lost large number of eucalyptus ('bairzaf') which was not estimated enough by the local government committees.*” FGD participants also disclosed that most farmers lost their eucalyptus tree which has long last benefit for the livelihoods of households.

#### 4.1.3. Reduction of Livestock

Urban expansion had directly or indirectly affected the production of livestock of rural communities which played multiple roles in creating wealth for farmers (Muluwork, 2014). As FGD discussants stated, there are two significant reasons for the reduction of the number of households’ livestock after they had been expropriated their farming land. On the one hand, the loss farmlands for animal fodder which was directly related to loss or decrease in number of livestock assets at household level. Because of the reduction of private and public grazing land which had been evicted by the urban administration, peri urban households forced to reduce their livestock. According to FGD discussants, there is also a direct relation between the decline of crop production and reduction of livestock since the remaining part of crops is used for animal feeding. For example, they stated as: “*the forage was accumulated and used for animal fodder, which is currently absent, during the winter season. Hence, for coping with the problem, farmers reduced the number of livestock and involved in few animal fattening and milk production. Since, it is better to save human labor and is effective.*”

On the other hand, the decline in the amount of livestock resulted from its selling for direct consumption of the household or for adding the compensated money to rent land and engage to in non- agricultural activities. Similarly, the survey result revealed that the percentage of sample households whose asset declined in cattle, sheep, got, and other domestic animals was 76.5%, 86.3.5%, 86.2%, 75% respectively. This implies that whenever farmlands taken away for urban expansion use, farmers obliged to sell all or minimize the number of livestock assets.

In net shell, all of the types of livelihoods mentioned above are directly or indirectly linked to land utilization. To show how land is all about the life of farmers they reflect it via common proverbs like:

“መሬት ዘመዴ ናት መሬት ዘመዴ ናት ለዛሬም ቀለቤ ለኋላም ልብሴ ናት”, and ‘መሬት ሳለን ጉርሻችን ብንምትም ልብሳችን  
 The proverbs describe land is needed for farmers at this world as a food and after death as a cloth.”

### 4.2. Livelihood changes and Sustainability after Land Eviction

#### 4.2.1. Livelihood changes

Land is a very critical resource for the livelihood of peri urban households Eyaya, 2014 and Dejene, 2011). The survey data indicated that majority of Peri urban people do not prefer economic activities other than agriculture. The following table shows the proportion of households who changed their means of livelihood after their land was expropriated.

Table 4.1: Percentage of respondents’ livelihood change

Do you change your means of livelihood / occupation/ after you were evicted your land?	Frequency	Percent
Yes	25	8.5
No	268	91.5
Total	293	100

Source: Sample Survey, 2016

In table 4.1, we can see that most 268 (91.5%) of the farming households did not change their means of

livelihood even if they lost their land partially or completely. The interviewee and FGD discussants also point out the reason why they want to stay on agriculture after they were losing their land was lack of knowledge, low amount of compensation money and disappointment to change their means of livelihood which nearly similar to Muluwork (2014).

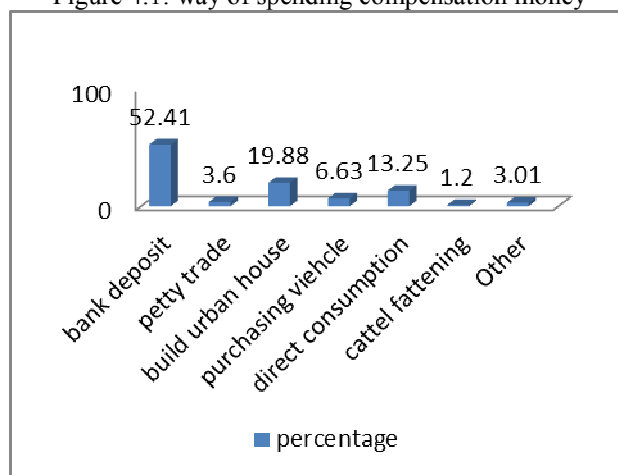
Therefore, in the absence of institutional support and follow-ups farmers who have not off-farm skills and no experience in urban life, most return to agriculture as share – croppers<sup>1</sup> on lands belonging to other farmers (Zemenfes, 2014). Generally, like Leulseged et al (2011) this study found that livelihood change is mainly determined by size of land, education, age and skill of individuals. Because of this, most farmers in peri-urban areas of Gondar city, in some extent, diversified their livelihood by engaging in various additional off-farm activities available in the area.

According to FGD participants, there are about five types of livelihood strategies where most evicted farmers engage in. These are: daily labor, petty trade, informal employment like guard and animal fattening and milk production. However, these livelihood alternatives are used only for survival of the household (keflu, 2012). Working in daily labor is the most options and takes the lion share of respondents.

#### 4.2.2. Livelihood Sustainably after Land Eviction

Sustainable livelihood can be described as the capabilities, assets and activities required for a means of living; provides opportunities for the next generation (Krantz, 2001:p.1). Farmers' livelihood can be persistent if the present income and asset that they own from agriculture is not declined and ensure the needs of the future. Otherwise, they need to spend compensated money in the way that will support the future of household lives.

Figure 4.1: way of spending compensation money



Source: Field survey, 2016

The figure generally described that only 24% of the respondent (maybe those who begin trade, who purchase urban house and vehicles) have the probability to sustain their land compensation. However, the rest of others particularly those respondents who consumed directly and putting the money at bank (76%) are less likely to have sustainable livelihood.

One of key informants in the community was described the overall situation of evicted households which is summarized in the following way.

*Most of evicted people in our community are directly consuming the money since many people are lacking money management skills. The main reason, however, is low amount of compensation they earned for establishing new business. Due to this, it is not few numbers of famers who had finished their land compensation and engaging in daily labors. [Key informant interviewed on April 06, 2016]*

Thus, most peri-urban farmers were not benefited enough by the money they received as land compensation. Therefore, it is difficult to say the livelihood of urban fringe people is sustainable which can maintain or enhance the capabilities and assets that provide opportunities for the next generation (Iaquinta, 2000).

### 4.3. Social Effects of Urban Expansion

#### 4.3.1. Urban Expansion induced Conflict

The transfer of the farmlands to urban land use is increasing time to time through land acquisition policies (Leulseged, 2011). However, this continuous transformation causes for enormous conflicts associated with urban expansion. The most important sources of conflict are found at the borders of the urban and rural or between the smallholder and investors land (Teketel, 2015). FGD participants raised three ways of conflict which was resulted by the land expropriation for urban extension. These are:

<sup>1</sup> crop-share- a process of cultivating the land of others and pay half or quarters of the production

**Conflict related to resources competition:** Competition for resources like water is one of the main reasons for the conflict among newly residents in the expanded area and the original farming people. Water exploitation is major problem of Loza Maryam communities due to increasing water demand derived from the city expansion. The problem was worsened whilst the rise of water consumption by new comers who want it for house constructions which had previously used for livestock drinking and sanitation purposes. Consequently, frequent complaint was raised by the previous rural residents to the kebele and city administration. Even, as key informants, some individuals were directly contested with those who watch water.

**Family disturbance-** urban expansion program also challenged the stability of farming households. Some evicted individuals were used the compensated money for alcohol drinking which become a cause of family disturbance even it leads up to marriage termination. Moreover, FGD members disclosed that young family members request part of land on the remained small size of farming land or the division of compensated money. However, parents want to invest money via purchasing fixed assets for the household. Besides, they doubt that youths will not spend the money properly so that, family disorganization would be resulted from land acquisition due to urban expansion.

**Conflict with neighbors-** this was resulted due to lack of knowledge and skills to manage compensated money. FGD discussants also rose that “since the compensated money is explicit to all, frequent request of borrowing money is coming from neighbors or other relatives. It appears because farmers keep a lot of money in hand”. Thus, people will enter in to conflict unless they get essential training about managing the compensated money and how to invest with it.

#### 4.3.2. Reduction of Social Bond and Social Relations

A social bond and relationship networks would be changed due to change of means of income and residential places (Muluken, 2013). However, the finding of this study indicated that no one was displaced from the community due to the land eviction which resulted from city expansion. Rather, it was observed that those whose residential places are evicted by the city expansion are reconstructing their house at the remained part of the land within in the community. A key informant at Azezo T/Haymanot kebele office said that “some households that completely disposed their land were given 500m<sup>2</sup> for the closest area so that they were not forced to leave from their community.” This shows that no change was existed on the social relationships and social bonds of households in the community. For instance, there is no change in their involvement in religious associations (like Senbete and Mehaber<sup>1</sup> after being evicted).”

On the other hand, social assets like Debbo /wonfel/<sup>2</sup>, iddir and iqub were somehow reduced due to land acquisition resulted from urban expansion. The main reason they mentioned for its minimization was that “farmers now prefer to engage on a daily labor due to the small size of agricultural land or they have not farming land to work together as they were doing before they lost their land.” Hence, evicted people spent much of their time in the city engaging on daily labor instead of participating different social matters with neighborhoods.

#### 4.3.3. Seasonal Migration

Landlessness is directly related to joblessness to rural people which finally lead them to move from their places. Members of evicted households were forced to migrate to the inside and outside of the country due to lack of economical alternatives within the community. During FGD discussion, participants reported that “*there are a lot of individuals who lost their farming land are migrating to Mettema, Humera and Sudan for searching job opportunities.*” They further explained that individuals prefer seasonal migration because of the absence of knowledge to invest by the compensated money, low amount of money to work, choice of agricultural activities than engaging nonagricultural works.

### Conclusion and Recommendations

Urban expansion induced displacement has negatively affected the marginalized farming communities and forced them to loss their land, production and livestock and other land assets. Most evicted farmers were not interested to change their means of livelihood even after the land expropriation. Majority of evicted farmers want to continue in agricultural working. From farmers who want to change their means of livelihood, most were preferred to purchase vehicle, build house at the city and grinding mills. Livelihood change was mainly determined by size of land, education and skill of individuals. However, education played a vital role to change farmers’ livelihood or to assure their sustainability. A considerable proportion of illiterate farmers are engaged in petty trade activities and daily labors which are not sustainable to the further livelihood of the household. The study also found that the expansion of urban places has far reaching consequences on the social life of affected communities. For instance, family disturbance, neighbor conflict, and unemployment induce seasonal migration were mentioned among the social problems that evicted households were encountered.

<sup>1</sup> *Senbete and mehaber* are informal associations by the followers of Ethiopian Orthodox Tewahdo church in which members pay traditional food and drink ceremonies, in circulation, at their home or at church and via this ceremony they would support beggars and low income members.

<sup>2</sup> Deboo/ Wonfel/ is a traditional association in which rural peoples accomplish their activities through rotation

Thus, the researcher forwarded the following recommendations as per the finding of the study.

- The local government should facilitate provision of farmlands in cooperative way so as to improve living standard of evicted farmers in creating diversified and sustainable income sources; and recognize that urban agriculture (like milking and animal fattening) for income generation and employment creation.
- The existing land valuation and compensation law need to be revised in a manner of current issues and inflation rates.
- As a copying mechanism, evicted farmers want to form cooperatives and engaged in to different livelihood strategies. Hence, youth family members of evicted households must be incorporated in small scale and micro enterprise sectors so as to access job opportunities.
- A well-founded rehabilitation program ought to recognize the capabilities of those displaced and make provision for skills training. To this effect, local government sectors, nongovernmental organizations and higher education institutions (university of Gondar) should provide trainings and other capacity building services on how to make urban businesses and how to manage these businesses.
- Most importantly, the city administration should focus to promote vertical urban development and use of urban land wisely so that it can minimize future land acquisition that affect farming community and the environmental and economic contribution of agriculture.

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