



Characteristics of Ethiopian Peri-Urbanization: The Case of Bahir Dar, Northwestern Ethiopia

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ABSTRACT

During the second half of the twentieth century, urban growth shifted to peri-urban areas. Peri-urban areas are located between urban and rural areas and have both rural and urban characteristics. The process of peri-urbanization presents both opportunities and challenges. The objective of this study was to investigate the defining characteristics of Bahir Dar's peri-urbanization process. Primary data collected from peri-urban households, in-depth interviews, key informant interviews, and field observations were used in the study. Quantitative data was collected from 240 study participants selected using systematic random sampling while qualitative data was collected from 15 informants selected using purposive sampling. The qualitative data were analyzed thematically, while the quantitative data used descriptive and inferential statistics. The results show that Bahir Dar's peri-urbanization is characterized by a shift in demographic composition, emergence of new economic activities, and mixed use of land. Bahir Dar's peri-urban areas are home to locals and people who come from all over the country. The industrial and service sectors which previously were nonexistent are emerging as main features of the peri-urban landscape. The results further show that land is used for multiple activities, including for residential, commercial, and recreational purposes. Therefore, peri-urban areas are transforming in demographic, economic, and spatial terms. To harness these areas' potential for further development and minimize negative effects, it is wise that the government develop a peri-urban policy. The city's master plan needs to be developed in consideration of its peri-urban areas.

Key words: Peri-urban areas, peri-urbanization, urbanization, characteristics, Bahir Dar

INTRODUCTION

In recent years, the world's urban population has grown rapidly. In 2007, half of the world's population was declared to live in cities (UN-DESA, 2019:9), signaling further urbanization in the coming decades. However, much of the urbanization is expected to occur in the developing world, such as Africa and Asia by incorporating large plots of land into urban limits (Aguilar et al., 2022). These peri-urban areas located outside city limits and are primarily agricultural lands where much-needed land and other resources for urban expansion are found (Narain, 2010).

Peri-urbanization, defined as "the process by which rural areas on the outskirts of established cities become more urban in character" (Webster, 2002:5

cited in Woltjer, 2014:2), has emerged as the dominant feature of current urbanization. This transformation occurs in demographic, physical, social, and economic terms. High levels of in-migration from both rural and urban areas are important factors in peri-urban change. Furthermore, public policy that encourages the dispersal of manufacturing away from cities, rising urban housing demand and the resulting residential housing development, and inner-city residents' relocation to urban peripheries all contributes to the peri-urbanization process (Alebel et al., 2017; Webster and Muller, 2004).

Despite what is known about urbanization's role in the development of a country, little is known about peri-urbanization. However, changes are taking place

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on the outskirts of major cities in the twenty-first century, and thus peri-urban areas are experiencing the most dynamic changes (Aguilar, 2008). From major factories to residential houses, academic institutions, and agricultural activities, all are located in the peri-urban. The peri-urban is where the urban food is prepared, urban residents' homes are built, and major urban activities are being relocated. Understanding the peri-urbanizations process is vital to harnessing its potential and avoiding its negative effects.

In the Ethiopian case, peri-urban areas represent rural agricultural areas located outside municipal boundaries with the potential to urbanize (Adam, 2014a). Ethiopia's level of urbanization was about 5% in the 1950s, 10% in the 1970s, 13% in 1984 (MUDHCo and ECSU, 2015:2), 20% in 2013 (MUDHCo, 2014), and in 2018 about 21% of the population is estimated to live in urban areas (UN-DESA, 2019). Despite historically low levels of urbanization, the country now has one of the highest rates of urbanization, even by developing-country standards, at 4.1% (MUDHCo, 2014). This is evident in the rapid growth of not only Addis Ababa, the capital city, but also cities such as Bahir Dar.

Urban Ethiopia is expanding not only in population but also in land area (Adam, 2014a; SADC, 2017). Recognizing urbanization as a critical factor in development, the government launched a program to encourage the conversion of rural kebeles into urban centers (SADC, 2017). Rapid population, combined with such programs, has caused emergence of new types of settlements, with peri-urban settlements dominating (Kinfa et al., 2018). Research on peri-urban Ethiopia has been conducted focusing on peri-urban land rights, expropriation (Ambaye, 2013), peri-urban land tenure (Adam, 2014a), and peri-urban planning (Tesfaye, 2019). Given the wide range of peri-urbanization processes (Woltjer, 2014), little attention has been given to capturing the distinguishing features of our country's peri-urbanization process. The defining features of Ethiopian peri-urbanization have received very little attention, and this study aims to help correct.

Between 1957 and 2009, Bahir Dar's overall annual land increment was 31%, from 279 ha in 1957 to 4830 ha in 2009, and this is expected to double again by 2024 (Nigussie et al., 2012). Bahir Dar's rapid

expansion has created different peri-urban areas (PUAs). Rural areas, which were previously home to agricultural communities, are transforming into urban areas. Because of the influx of people, the construction of factories and residential houses, and the spread of infrastructure, the peri-urban is changing in terms of demographic composition, economic activity, and land use system. The peri-urbanization of Bahir Dar is blurring the old rural-urban dichotomy and is distinguished by features that combine rural and urban elements.

This paper focuses on Bahir Dar, a city that has recently experienced rapid population growth and massive spatial expansion. The last few decades have been crucial in Bahir Dar's evolution and enlargement. The paper's main goal is to identify the main characteristics of Bahir Dar's peri-urbanization process and discuss the challenges and opportunities it presents in the Ethiopian context.

REVIEW OF RELATED LITERATURE

Population growth and rising resource demand have pushed cities into adjacent rural areas (Aguilar, 2008). The extension of urban activities beyond existing urban administrative boundaries has resulted in the emergence of peri-urban areas (Woltjer, 2014). Peri-urban areas (PUAs) are transitional zones where both rural and urban elements coexist. Peri-urbanization refers to the gradual transformation of previously rural areas into urban settings. Aside from administrative status changes, PUAs undergo a variety of transformations. These changes are physical, social, economic, and demographic (Goswami, 2018). The process of peri-urbanization is not the same all over the world.

Even though peri-urbanization began in developed countries, it has become a spatial planning challenge to the entire urbanizing world (Ravetz, Fertner and Nielsen, 2013). There are also differences between countries around the world. In the developed countries, the process of peri-urbanization is characterized by wealth and conspicuous consumption; the accumulation of social and economic capital for development; an increasing urban population and a declining rural population; urban wellbeing; and the regionalization process in broader urban regions (Biegańska et al., 2018; Ravetz et al., 2013; Woltjer, 2014:3) – followed by constant changes.

Peri-urbanization is characterized in the developing world by rural-urban migration, natural population growth, and rural urbanization (Woltjer, 2014). In Asian countries, for example, peri-urbanization refers to the extension of urban activities to the periphery and the transition from rural to urban life (Rahayu and Mardiansjah, 2018). Conversely, peri-urbanization in Africa is characterized by rural-urban migration caused by landlessness, resettlement, and insecurity (Webster and Muller, 2004). In-migration and natural increase drive Ethiopia's urban growth and expansion with poorly developed city plan, characterized by haphazard development. In Ethiopia, peri-urban lands represent unauthorized land transactions dominated by conflicts over land access and control. It is a location for large developments, including informal settlements without utilities, resulting from urban sprawl (Adam, 2014b; Ambaye, 2011).

According to the SADC's report (2017), several hundred thousand informal houses were observed being built in PUAs in Addis Ababa, Hawassa, Bahir Dar, and Assosa, causing conflict between urban administrators and illegal house builders (SADC, 2017). Furthermore, peri-urban Ethiopia is distinguished by the establishment of several factories, including industrial parks; the construction of modern residential villages; and the establishment of university campuses. Peri-urban is also characterized by the relatively low cost of land, job opportunities provided by factories, and geographic proximity to cities which are magnet for both urban and rural residents to move to peri-urban (Woltjer, 2014). The influx of people is changing the existing demographic composition, eroding the existing social fabric and introducing new ones.

Theoretical Framework

Peri-urban areas are located outside of city limits and are characterized by dynamic and rapid changes (Webster and Muller, 2004). These changes are continuing and are demographic, economic, and political in nature. To comprehend peri-urban changes and the peri-urbanization process, we must examine multiple aspects of the peri-urban system. The 5-dimensional framework developed from PLUREL research is useful for identifying key features of the peri-urbanization process. The five dimensions represent a kind of generic story about how peri-urbanization occurs (Ravetz et al., 2013)

and found to be useful to understanding the process of peri-urbanization in Bahir Dar.

The first aspect is where urban expansion occurs as a result of growth in population, economics, and space demands. Key factors that shape the peri-urban include: demographic and social dynamics – population dynamics such as birth, mortality and migration rates and land policy; economic and employment growth – rates of saving and investment with employment patterns; environmental dynamics – natural barriers like rivers and climatic condition; and urban built structures and infrastructure – availability of houses and transportation networks (Aguilar, 2008; Ravetz et al., 2013: 21-23).

Next, as cities grow larger, they form regional agglomerations, resulting in significant economic changes and the development of a new type of peri-urban territory. The urban expansion scheme described above is not a one-way process; it also causes responses and changes in peri-urban areas (Ravetz et al., 2013). While urban demands and pressures on the peri-urban by taking space for housing, businesses, and infrastructure, the peri-urban requires urban markets and services.

Third, these changes are influenced by a variety of political and cultural forces that shape the peri-urban territory. Peri-urbanization is fueled economically by new investment, such as national and foreign direct investment; politically, by the adoption of liberal ideologies and changes in land policy; and culturally, by information and media technology (Webster and Muller, 2004; Woltjer, 2014). Peri-urban is more than just a transition zone; it is also a place where national and local political, economic, and cultural forces interact, giving these areas distinct and highly dynamic characters.

Fourth, the entire urban system can undergo rapid transitions characterized by radical change and restructuring. Each of the aforementioned factors can work in tandem, with many feedback loops between them, amplifying the change processes. The end result could be "a rapid transition, a 'discontinuity,' or, in some cases, a catastrophic failure" (Ravetz et al., 2013:26). Cadène (2005) identified four changes that characterize the complexity of peri-urban areas: the intensification of agricultural or industrial activities; the multiplicity of types of mobility; the

diversity of populations; and the multiplicity of local power systems.

The final aspect concerns policy responses to these changes and transitions. Political, economic, and cultural forces at the macro, meso, and micro levels influence the land use system and spatial governance in the peri-urban area. These include housing and land markets, planning decisions, land use characteristics, and the roles of actors in these processes (Thuo, 2013b). As any framework, this one too is a simplified version of a complex process of peri-urbanization.

RESEARCH METHODOLOGY

This research was carried out in Bahir Dar, a city in Ethiopia's northwest. Bahir Dar is divided into six sub-cities and encompasses six PUAs, and three satellite towns. The research was carried out in three PUAs of Bahir Dar, namely *Yibab*, *Yinesa*, and *Zenzelima*.

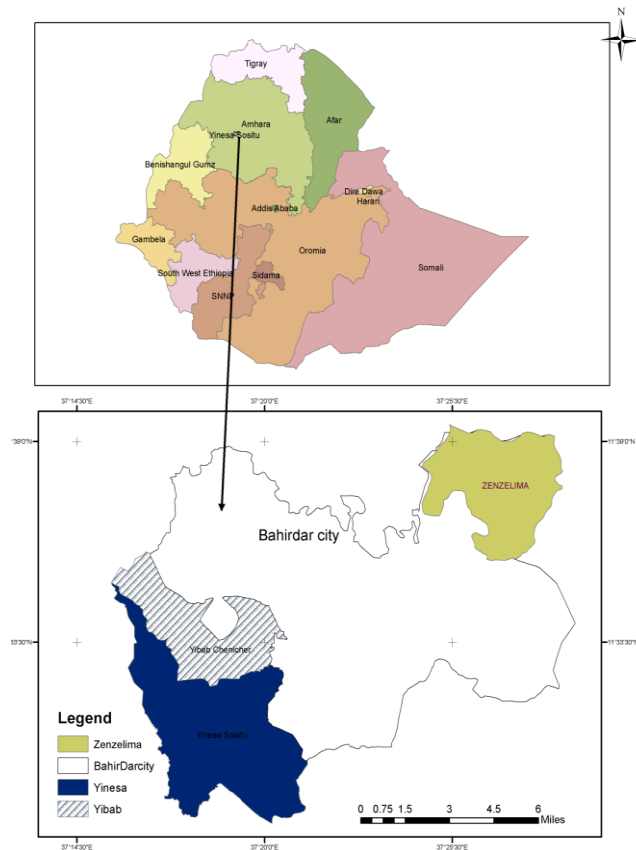


Figure 1: Location Map of Bahir Dar City and Its Peri-urban Areas

A mixed-method research design, specifically relies on a sequential exploratory strategy was adapted. A variety of data collection techniques were used to collect both qualitative and quantitative data. Household surveys, in-depth interviews, key informant interviews, and field observations were used. In addition, relevant books, articles, and journals were also used.

The target population for this study was the residents of three purposively selected PUAs: *Yinesa*, *Yibab*, and *Zenzelima* kebeles. The sample size for the household survey was determined using the formula developed by Yamane (1967).

$$n = \frac{N}{1 + N(e)^2} = \frac{705}{1 + 705(0.05)^2} = 255$$

A systematic sampling method was used to choose the households after the sample size had been established. Following in the above formula, 255 household heads were selected from a sampling frame provided by the administration of the respective kebeles. However, 15 respondents' data were incomplete and it was discarded. The number of households in each of the three peri-urban kebeles is as follows: *Yibab* (68), *Yinesa* (79), and *Zenzelima* (93).

For qualitative interviews, 15 participants, five each from three study sites (administrator, agricultural extension officer, land management officer, a farmer, and a broker) were selected. Two round field observations of the land use system and day-to-day activities of the residents were also conducted. The data was collected from May, 2021 to February, 2022.

A mixed data analysis method was used to analyze data collected through surveys, qualitative interviews, and field observations. The qualitative data was thematically analyzed, whereas the quantitative data was analyzed using descriptive and inferential statistics of SPSS version 20.0. All necessary ethical procedures and care were taken to protect participants' identities.

RESULTS AND DISCUSSION

Shift in Demographic Composition

Bahir Dar's urbanization is characterized by rapid population growth and high land demands. The importance of urban outskirts as places to live and work grows as the city's population grows. Between

2014 and 2020, the municipality provided land for over a thousand (1022) housing cooperatives (Bahir Dar Municipality Report, 2022). According to this report, land given to these cooperatives with members over twenty-one thousand (21,683), are in the PUA. This year (2022), the city provided land for over 300 housing cooperatives in the *Zenzelima* kebele. Also, several hundred households illegally buy land from farmers and relocate to the outskirts of cities (Adam, 2014b).

Peri-urban areas are home to communities that are primarily engaged in agricultural activities. The social lives of these communities are similar to their rural neighbors, homogeneous in many aspects – sharing the same language, religion, and economic activities. From the survey, all speak the Amharic language, 91.7% follow the same religion (i.e., Orthodox Christianity), and 76.7% engage in agricultural activity. From the late 1990s onwards, Bahir Dar’s municipality turned to the peri-urban to meet the growing demand for land.

As a result of an increasing number of people relocating to PUAs, the demographic composition of peri-urban populations has changed. Currently, urban outskirts serve as workplaces and residences – based on their place of origin.

Table 1. Distribution of the respondents by population group

Peri-urban Population	Peri-Urban Site						Total	
	Zenzelima		Yibab		Yinesa		No.	%
	No.	%	No.	%	No.	%		
Locals	52	21.7	58	24.1	60	25	170	70.8
Newcomers	41	17.1	10	4.2	19	7.9	70	29.2
Total	93	38.8	68	28.3	79	32.9	240	100

(Source: Survey, 2021/22)

There are two types of peri-urban people: those who were born and raised there and those who came from elsewhere. Those who were born in the PUAs are referred to as "the locals" and those who came from elsewhere are referred to as "the newcomers". According to the survey, the majority of residents (70.8%) were born and raised in the study areas. In contrast, newcomers account for 29.2% of the peri-urban population. Peri-urban residents’ demographic characteristics are presented below to demonstrate the changing demographic composition.

Age

A comparison was made to see whether there was a difference in age between locals and newcomers. According to the survey, 57.9% of peri-urban residents are under the age of 40. About 75.7% of newcomers and 50.8 percent of locals are between the ages of 18-39. While the average age of locals is 41.5 (SD=14), newcomers is 33.8 (SD=11.1). An independent samples t-test was also performed to determine whether the observed difference between the two means is large and statistically significant.

The result shows there was significant difference in age mean scores for locals (M=41.15, SD=14.08) and newcomers (M=33.86, SD=11.14; df (233), t=3.83, p<.05). The null hypothesis was that the locals were in the same age group as the newcomers. Contrary to the null hypothesis, newcomers are younger than locals. According to Anrquez and Stlouka (2008), while developed countries have a predominantly adult/elderly population, developing countries have a younger population. Peri-urban areas in Bahir Dar have a young adult population, indicating that these areas are in transition.

Education

In Ethiopia, rural residents had limited access to education compared to urban residents who have better access to education. An attempt was made to determine where peri-urban stand in terms of education. According to the survey, 60% of peri-urban residents have some form of formal education, while the remaining 40% have no formal education. However, there is a clear distinction between newcomers and the local population. The majority of illiterate peri-urban residents (34.2%) are locals, with the remainder (5.8%) being newcomers. An independent samples t-test was used to determine whether the educational gap between locals and newcomers was statistically significant.

The result indicates there was a significant difference in educational level between locals and newcomers (df (238); t= -5.434, and significance level p<0.05). Given the peri-urban residents' low educational level, which was comparable to that of rural residents, the increasing number of educated people would lead to demographic transition (UN-DESA, 2003) as education has a significant impact on fertility, morbidity, and mortality (Rees, 2018). As the number of educated groups grows, the community will become more urban in character. According to UN-

DESA (2003) education contributes to better natural resource management, faster technological adaptation, and greater information diffusion, and increasing productivity.

Household Size

Based on the current survey, the majority of respondents (82.9%) are married suggesting that the peri-urban is home to predominantly married people. About 41.7% have a family size of four to six. The average household size is 4.6, which is larger than in cities (4.3) but smaller than in rural areas (7.2). The local’s household size (4.8) is higher than the newcomers (4.2). The t-test result shows there was no statistically significant difference in the mean of local’s family size (M=4.85, SD=2.01) and newcomers (M=4.28, SD=2.40; df(215); t=1.786, p>0.05).

In terms of demographics, rural communities on the outskirts of Bahir Dar were characterized by homogeneity, an adult population, a majority without formal education, and large family size (CSA, 2013; Gashu, 2018). This finding indicates that today’s peri-urban residents are not as homogeneous as they once were and they are gradually becoming more diverse. Such changes are the result of changes in the demographic structure of cities (Tali et al., 2014).

Economic Activities

The PUAs include extensive agricultural, forest, swamp, and grazing lands. Agriculture and animal husbandry were the most common economic activities among peri-urban households. Bahir Dar’s current peri-urban economic activities which include farming, service and commerce are shown in Table 2. Table 2. Distribution of respondents by the different economic activities

Economic Activity	Place of Origin				Total	
	Locals		Newcomers			
	No.	%	No.	%	No.	%
Farming	125	73.5	3	4.3	128	53.3
Industrial	4	2.4	-	-	4	1.7
Service	15	8.8	40	57.1	55	22.9
Construction	8	4.7	9	12.9	17	7.1
Other (Driver, Trade, Daily labor)	18	10.6	18	25.7	36	15
Total	170	100	70	100	240	100

(Source: Survey, 2021/22)

Farming/ Agriculture

In Table 2, 53.5% of the respondents were found to be farmers. “In previous years, this figure was significantly higher” (Interview with *Zenzelima* kebele administrator, 2022). Agriculture’s declining importance is due to the rapidly shrinking size of farming land, combined with the threat of eviction, forcing locals to seek alternative sources of income. Households have adopted a wide range of farm and non-farm activities, each with varying importance in terms of household income.

Since the early 2000s, there has been a shift away from wheat and teff production toward cash crops such as mango and khat, with *Zenzelima* becoming an important khat producer. Many farmers have turned to khat as it has high market demand, combined with its profitability, providing farmers with the incentive they needed. Currently, khat is an important part of the peri-urban economy. This finding corroborated a study conducted in peri-urban Nyahururu, Kenya, which discovered the disappearance of traditionally cultivated crops such as sweet potato and wheat, and growing cultivation of beans, tomato, and carrot because of these crops growing market demand (Mandere, Ness and Anderberg, 2010). In addition to shifting to cash crop production, dairy production is increasing.

In the past, except for butter, other dairy products were rarely available on the market. However, the arrival of several families has created a massive market for dairy products. Some locals are capitalizing on the increased demand for milk, yogurt, and butter. In addition, some residents have used their networks with newcomers to gain access to resources available outside of PUAs (Thuo, 2013a). Increased access to the urban market and development of local markets are assisting in the transformation of the peri-urban into an important economic area.

Non-farm activities

Peri-urban areas are now as important for trade, industrial production, and services. There is a structural and individual effort that is underway to transform the outskirts into industrial zones. The Ethiopian government issued an industrial park proclamation in 2015 (Proc. No. 886/2015). One of the proclamation’s objectives is the establishment of industrial parks in strategic locations, such as peri-urban areas.

Cities like Bahir Dar are already experiencing this. Several factories, including the industrial park, are located in the peri-urban industrial zones. Even though factories can be found in all three study sites, the majority of them, including the industrial park, are in *Yibab* kebele. “The *Yibab* kebele is home to approximately 95% of Bahir Dar’s industries” (Interview with Bahir Dar *Zuria woreda* investment office manager, 2022). Among the various factories are paint, plastic, pipe, wheat flour, fiber, socks, marble, and iron sheet manufacturers.

As residential development has been expanding, the PUA has become a true job magnet. Thousands of residential dwellings are built each year, indicating that the construction industry is thriving. Despite some differences, both local and non-local residents benefit from jobs created by the construction and manufacturing industries. Aside from diversifying their farm activities, non-farm activities such as working in factories and the construction sector have become important means of household income (Mandere et al., 2010).

Service

The service industry is another expanding economic activity. Until the early 2000s, the service industry such as cafés, restaurants, game houses, and other similar establishments was nonexistent. Residents have to travel to Bahir Dar or another nearby city to get these services. However, an increasing number of people have recently entered the service industry. The opening of factories, construction of university campuses, development of residential communities, and relocation of urban enterprises have all benefited the service industry.

The study reveals that the service sector employs 22.9% of the respondents; the majority of them are newcomers (Table 2). Furthermore, most cafés, restaurants and recreation centers are owned and operated by immigrants. Increased migration to the urban periphery due to scarcity of land in the city, improved transportation, and decentralization of urban customers accelerated the development of the service industry.

Land Use

Peri-urban land is currently being sought by both peri-urban farmers and the neighboring city municipality. It is a hotly contested territory in which several parties vie for dominance (Adam, 2014a). The availability of relatively inexpensive large pieces

of land, the growing demand for land among urban residents and investors, and land expropriation by the government contributed to the introduction of new land uses. According to the survey and field observations, peri-urban land is currently used for agricultural, commercial, industrial, residential, and recreational purposes and thus the peri-urbanization process in Bahir Dar is characterized by significant land use conversion.

Agricultural Use

Some 39.2% of the respondents use their land for agricultural. However, the percentage of land used for farming is decreasing year after year. In the past, “almost all of the area [land] was used for cultivation,” according to *Yinesa* kebele officer (May, 2021). The *Zenzelima* kebele administrator has also stated that “[in the old days] much of *Zenzelima*’s territory was farming land” (February, 2022).

The use of land for both agricultural and non-agricultural purposes is becoming more common. Construction of new factories and residential villages along agricultural fields can be seen in peri-urban zones. The findings of this study support that of Amoateng, Cobbinah, and Owusu-Adade (2013) that show peri-urban land use demonstrates its transitional nature from rural (agricultural use only) to urban (diverse use).

Residential Use

The scarcity of space in urban areas is one of the driving forces behind peri-urban development. Natural population growth and rural-urban migration are significant contributors to urban population growth (CSA, 2013). The municipality is turning to the PUA to meet the growing demand for housing. During field observation of the *Zenzelima* kebele, agricultural fields were seen being converted into constructed settings; pasture lands have been converted into residential villages (Field observation, 2021). According to *Zenzelima* kebele resident, “since 2002, the government has taken away several families’ land and gave it to city dwellers” (May, 2021).

Despite some differences, this transformation characterizes all of Bahir Dar’s peri-urban areas (Adam, 2014a; Nigussie et al., 2012). The residential area commonly known as Diaspora, for instance, is home to thousands of people, built on land that was previously farmland. The survey also reveals that 22.9% of respondents use their land solely for

residential purposes. While 16.3% of residents use their land for both farming and residential purposes, 10.4% use it for commercial and residential purposes. Generally, a half of the respondents use the land for residential purposes. Nowadays, the urban peripheral zones are being converted into huge residential areas (Amoateng et al., 2013).

Industrial Purpose

Human progress in technology and communication is redefining the concept of time and space. Although industries were concentrated within urban areas, a lack of urban space is forcing industries to relocate. The availability of large tracts of land in the PUA, alongside improvements in transportation, is strengthening the relocation of industries to the city's outskirts. Economic and environmental policies have also aided factory relocations outside of the city (Alebel et al., 2017).

Over 95% of Bahir Dar's factories are in peri-urban areas (Bahir Dar Zuria Woreda Investment Office, 2022). Yibab kebele, for example, houses various manufacturing companies including Bahir Dar's industrial park. These factories are transforming the peri-urban land use and landscape while also creating job opportunities.

Discussion

Bahir Dar's rapid growth and development has led to the city's physical expansion into the nearby rural areas. Population and economic growth are important fuels for the development of fringe areas (Ravetz et al., 2013). As urban residents relocate to fringe areas, these previously rural areas become urban in character (Webster and Muller, 2004) but not quite like the urban proper. Instead, PUAs display both urban and rural features. On the one hand, there are sizable pasture lands, swamps, and agricultural fields. On the other, industrial and residential complexes are being built in great quantities. Agricultural and non-agricultural activities coexist here (Woltjer, 2014). The case of Bahir Dar's peri-urbanization has shown not only a shift in peri-urban demographic composition but also the economic activities that residents are engaged in.

In terms of *demographic shift*, most peri-urban dwellers were mostly male, adults, with little education, and a big family size, similar to rural residents (CSA, 2013; Gashu, 2018). However, the findings of our study show that the contemporary

population is made up of young adults (57.9%), women (61.9%), and people who can read and write. Additionally, peri-urban families have a family size of 4.6 on average, which is well within the range for urban families (CSA and ICF, 2017). These findings show that the peri-urban population's demography is moving closer to that of the urban area.

Demographic and health surveys conducted in Amhara's metropolitan centers (Gashu, 2018) revealed that women make up the majority of the population. However, CSA's (2013) population projection of Bahir Dar's rural kebeles shows that they have more males than females. But the gender ratio, educational attainment, and family size of Bahir Dar's PUAs, now resemble urban neighborhoods. For instance, 60% of respondents who reside in PUAs have some type of formal schooling. A demographic shift would be brought about by the rise in the number of educated people (UN-DESA, 2003). Such changes in the urban demographic structure lead to changes in the peri-urban demographic structure (Tali et al., 2014).

Concerning the *emergence of economic activities*, agriculture and animal rearing have been the two dominant sub-sectors of peri-urban economic activity (Thuo, 2013a). However, the current study participants engage in primary, secondary, and tertiary economic activities. Other urban activities were facilitated by the relocation of urbanities to the peri-urban areas (Rahayu and Mardiansjah, 2018), as the growth of new economic activity is aided by the increasing consumerism.

Some farmers acquire resources outside of PUAs using their networks (Thuo, 2013a) and advertise their underutilized dairy products to both immigrants and others through their neighbors. The transition of the peri-urban into a key economic area is being helped by improved access to the metropolitan market. The construction of new residential areas has made it possible to establish convenience stores, coffee shops, restaurants, and entertainment facilities.

In the area of *land use*, the current study showed that the peri-urban is for residential, commercial and recreational purposes. These land use patterns demonstrates the dynamic character of peri-urban land use. Studies by Adam (2014a) and Amoateng et al (2013) on peri-urban land use demonstrate that a transition from being rural (used only for agriculture)

to becoming urban (used for a variety of purposes) is occurring. The fact that most peri-urban households depend on the land makes the change in land use difficult for peri-urban livelihoods.

In Bahir Dar, the peri-urban is expanding as a result of people relocating in pursuit of less expensive housing from the inner city (Amoateng et al., 2013). The peri-urban area has also become a significant industrial area (Webster and Muller, 2004). The availability of cheap land and policies that support expropriation and dispersal of industries away from the city have altogether made these areas a huge attraction for industries (Alebel et al., 2017; Webster and Muller, 2004).

The analysis and discussion in this is informed by PLUREL's 5-dimensional framework presented earlier (Ravetz et al., 2013). As a result of population and economic growth, and space demands, Bahir Dar is expanding to its PUAs. The rapid growth of the city has resulted in economic changes such as the development of PUAs. As Bahir Dar gains access to development land and resources, peri-urban areas gain access to urban markets and services. Political and cultural forces influence the interaction between the city and its PUAs. As a result of these interactions and influences, Bahir Dar PUAs are characterized by demographic shift, the emergence of new economic activities, and spatial (multiplicity of land use) transformations.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Peri-urbanization is characterized in developing countries such as Ethiopia by the conversion of agricultural lands, the relocation of inner-city residents, and the displacement of local communities.

Bahir Dar is a city where PUAs are growing and transforming in demographic, economic, and spatial terms. In terms of population composition, peri-urban districts are home to a mix of people and the peri-urban is home to people of different religions, educational levels, economic status, and places of origin. New economic activities such as khat production, manufacturing and service industries are emerging. While locals shift to cash crops such as khat production, newcomers dominate the previously non-existent service sector. Land use has also changed due to peri-urbanization with recreational, residential, and industrial sectors emerging. Overall,

peri-urban land is characterized by rising land values, mixed land use, and change in the landscape.

Recommendations

The peri-urban area is rich in resources such as land, food, and water. Furthermore, the peri-urban is where urban centers will develop in the future. Despite the enormous development potential of PUAs in Ethiopia, there have not been enough efforts made to energize them and thus we recommend the following:

- ✓ First, researchers and academics must participate in peri-urban research and knowledge production so that a sound peri-urbanization policy supported by results of empirical research can be developed.
- ✓ Second, given that the future development of urban centers depends on proper peri-urban management; the government must develop a peri-urban policy.
- ✓ Third, municipalities must revise their master plans to include peri-urban areas.

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