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Article

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RESEARCH

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Economic linkage between urban development and livelihood of peri-urban farming communities in Ethiopia (policies and practices)

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Abstract

As urban expands into peripheral areas, peri-urban indigenous farmers lose their land and highly vulnerable to negative externalities of urbanization. The aim of the study is to assess the economic linkage between urban development and the livelihood of peri-urban farming communities, focus on current practice and policies. From Ethiopia, Amara regional state was selected. Through multistage sampling, five municipalities (Debra Birhan, Shewa Robit, Kombolcha, Dessie, and Woldia) were taken as the sample from Amara regional state. Interviews were conducted with 30 municipalities' officials of the selected town. Questionnaires collected from 200 respondents of peri-urban evicted farmers. As the findings of the study suggest, peri-urban farmers' evictions from their indigenous land for land re-development are the continuous process that negatively affects the livelihood of farming communities. The factors that contribute for urban expansion in Amara regional state are economic policy reform, the creation of enabling the environment for private investors, the unsatisfied demand of urban dwellers for residential, and expansion of public sector projects. A collaborative effect of policy limitations, potential conflicts, unplanned livelihood, and poor saving habits of peri-urban farmers, lack of municipality intervention and lack of good governance negatively affect the livelihood of peri-urban farmers and jeopardize the image of government. The forwarded solutions are municipalities should have fully implemented urban policies, should have work on mutual benefits of concerned stakeholders, farmers' background should be recorded and continuous follow up of evicted farmers livelihood should be practiced.

Keywords: Urban expansion, Economic linkage, Attitude, Challenges

Introduction

Urbanization, rapid population increase, and changing socioeconomic pattern are deriving forces that influenced spatial change in peri-urban areas (Jongkroy 2009). In 1900, worldwide, there were 7 rural dwellers to each urban dweller; now there is less than one and projections suggest close to three urban dwellers to two rural dwellers by 2025. UN's projections suggest that the world's urban population will grow by more

than a billion people between 2010 and 2025 (United Nations 2008). Unlike the situation in the developed countries at comparable stages of development, the process of urbanization in the third world countries appears to be more a function of rural push factors than the urban pull factors (Adem 2010). It is also common that as the population increases in urban areas, urbanization expanded to rural areas. Today's rapid rate of urbanization of the world is higher, particularly radical urban growth predicted in developing countries (Marshall and Randhawa 2009). Africa's urban transition is proceeding rapidly, with the accumulated relative growth rate of its cities now among the highest in the world (UNECA 2014). In 2000, 38% of the African population lived in urban areas and the proportion is expected to increase to 47% by 2015 and to double by 2050 (Adeboyejo 2007). Such rapid urban expansion has a great impact on the urban periphery in terms of changing in land use, differential access to urban benefits (such as basic infrastructure and employment), and increased pressure on common natural resources (Marshall and Randhawa 2009). The areas of developing countries are characterized by high incidence of poverty. This is due to low-income populations attracted to the periphery by inexpensive, but mostly illegal land for housing (Gugler 1996). However, most of the peri-urban dwellers of low-income groups who are originally resided in the area before the urban encroachment and have the rural background. Some of these groups depend to some degree on agricultural livelihood for the living. The interaction of rural-urban interface determines community in peri-urban areas to build or enhance in adapting various livelihood strategies and fulfill their needs.

Rapid urbanization process is demanding a transformation of land use in surrounding rural area to cater to the needs of urban areas (DFID 2000). The land is the primary asset that can be affected by intense pressures of the land conversion process in peri-urban areas. Changes in land use from rural to urban activities affect the economic features of the peri-urban interface (DFID 1999). The urban periphery is an open countryside including peri-urban areas largely occupied by agricultural communities in rural settlement pattern to which urban settlement expands (Adem 2010). Peri-urban areas are those areas adjacent to build up areas of high population concentration, zones where traditional farming activities come into conflict with alternative economic, residential, and recreational interest (Mandere and Anderberg 2010). Peri-urban is an area neither urban nor rural but an interface where there is increasingly less provision of various urban services when compared to the urban system and increasingly less provision of ecological services when compared to the rural system (Adeboyejo 2007). According to Brook and Davila (2000) observations in Kumasi and Ghana, while the phenomenon of peri-urban development must be acknowledged as inevitable, it is worth noting that even in Kenya "there appears to be no recognition of the changes being caused or to be caused by the presence and growth of urban activity including the inherent opportunities and threats. Similarly, problems and benefits of urban spatial expansion are not fully recognized." On the other hand, agriculture remains an important livelihood activity among the majority of indigenous peri-urban communities (Mutua 2013).

Ethiopia has a long history of urbanization and has the urban settlement like Aksum, Lalibela, and Gondar. However, urbanization and urban development in Ethiopia face a number of socioeconomic problems due to its fast pace (Tegegne 2000). Ethiopia is characterized by low level of urbanization even by African standard, where only 16% of populations live in urban area. Despite this, it has recorded a relatively high growth rate

of urban population (4% annually), double that of rural areas. However, such high growth rate is not often accompanied by development in economic services and infrastructure, and economic and employment capacity of the urban centers to support the growing population (Tegenge 2000). Moreover, urban growth and urbanization process in Ethiopia characterized by high primate city development. In Ethiopia, commercial farms, protection of parks, villagization, resettlement, road construction, urban expansion, and similar state organized national plan caused population displacement (Feleke 1999).

The urban development strategy of Ethiopia is mainly based on expropriation of peri-urban agricultural land from local peri-urban farmers. However, its economy still depends on agriculture, which accounts for more than 42% of the GDP, 90% of the exports and 85% of total employment (Hassan 2011). The government delivers land for this program through taking compulsorily the nearby agricultural land from local peri-urban farmers who have given a lifetime right through giving cheap price as compensation in advance (ibid). In agrarian country like Ethiopia, land is not only the main means for generating a livelihood but often also used to accumulate wealth and transfer it among generations. In urban areas also, most of the human activities are meaningfully linked to land. It is the starting point for all urban development activities that provides the physical location for shelter, commercial, industrial, and other public services (Daniel 2006).

The main reason for urbanization in the Amara regional state is derived from reform in the country in terms of economic policy (FDRE Proclamation No. 455/2009, 2009) that has created the enabling environment for private investments. The main reason for urbanization in the Amara regional state is derived from reform in the country in terms of economic policy (FDRE Proclamation No. 455/2009, 2009) that has created the enabling environment for private investments. The proclamation more focused on how to attract potential private investors but not consider the livelihood of peri-urban dwellers. On the other hand, the rural farming community has little knowledge and know-how to adapt to the situation of urban life as most of them is unskilled to compete for the urban job opportunity. As a result, most of the dislocated families could be exposed to economic disadvantage. Livelihood strategies of those farmers can be exposed to economic problems that lead them to impoverishment. This study has tried to assess the economic linkage between urban development and the livelihood of peri-urban farming communities in Amara regional state and recommend suitable strategies for municipality officials and policymakers.

In the study, the following hypothesis was stated:

Hypothesis: Urban expansions negatively and significantly affect the economic livelihood of peri-urban farming communities in Amara regional state.

Based on the identified problems, the study also answers the following research questions:

- What are horizontal urban expansion policies and real practice of urbanization to protect the economic interests of peri-urban agricultural farming communities in Amhara regional state?
- What are the factors that contribute to urban expansion in Amara regional state?
- What are perceptions of evicted community on eviction process that are pursued by urban administrators to rehabilitate the livelihood of peri-urban farmers?

- What are the challenges that hinder proper implementation of urban policy and livelihood of peri-urban dwellers of agricultural communities?

To address the research questions, the general objective of the study is to assess economic linkage between urban development and livelihood of peri-urban farmers in Amara regional state.

The specific objectives were the following:

- To assess economic impacts of urban development on the livelihood of peri-urban farmers in Amara regional state (test hypothesis).
- To assess policies and current practices of urban development concerning the economic aspect of peri-urban agricultural communities in Amara regional state.
- To identify the factors that contributes to urban expansion in Amara regional state.
- To identify the challenges that hinder proper implementation of urban policy and livelihood of peri-urban dwellers of agricultural communities.
- To assess the attitude and perception of evicted community on eviction process that is pursued by urban administrators.

Methods and techniques used

The research is descriptive type. The qualitative and quantitative approaches were used. In order to make a closer investigation of the economic linkage of urban development with the local community's livelihood situation, attitude, and perception, data were collected from the localities covered by the study through survey method. Accordingly, the required data were obtained from both primary and secondary sources. The primary data were collected from evicted peri-urban farmers and municipality officials. Secondary data were collected from relevant literature and proclamation.

For research design, multistage sampling technique was adopted. In the first stage, eastern part of Amara region was selected because of high urban growth rate. In the second stage, all highly growing urban areas were selected. Those towns were Debre Birhan, Kombolcha, Dassie, Shewa Robbit, and Woldia. The justifications behind the selection of study areas were highly vulnerability to the identified problems, and they are the fastest pace of urbanization in the eastern part of Amara regional state after economic policy reform. In the study, households and municipality officials were taken as sampled respondents. In research design, questionnaires for a sample of evicted households were administered in order to assess the economic linkage of urban expansion with livelihood of farming community on periphery area of sampled study areas. The target population of the study is evicted farmers who were expropriated from periphery areas of study areas and their respective urban municipality officials. The municipality officials have no sufficient recorded data of evicted peri-urban farmers. Since the total population is unknown, the researchers used non-probability sampling called quota sampling.

Therefore, 200 survey questionnaires were distributed and collected from farmers of the peri-urban area of the study areas were under consideration. Both open and close-ended questions were included in the questionnaires to capture more information on the research gap. Sometimes a retrospective data collection method was used while respondents were asked to provide present information and remember and reconstruct

significant events and aspects of their assets, strategies, and poverty. Key informant interview was also carried out with those individuals who have wider concept and idea on the issue. Key individuals from the community leader, urban administration, experts from the Urban Land Administration, and investment office were interviewed.

The sample includes households of peri-urban areas and those displaced from their farmlands and give way for urban land uses. All evicted farmers were considered as respondents. Some of them displaced to the unknown location, and some of them have housing plot. Through snowballing non-random sampling, researchers contacted displaced farmers who moved to the unknown location. In additions, through simple random sampling, data was collected from evicted farmers who have the permanent location and housing plot. Total 200 questionnaires distributed and collected from peri-urban farmers. In addition, key informant interviews conducted with 30 respondents from sampled municipalities. To administer key informant interviews around the issue, checklists were prepared.

The study population includes agriculture-based households of peri-urban areas and those displaced from their farmlands and give way for urban land use (Table 1). It was concentrated on areas and rural villages where major expansions were taken. Hence, a sample of 200 households was purposely selected for data collection through questionnaires from sampled municipalities. In each urban area, a list of the affected households was collected then generated from roasters of urban administration and formed sampling frame. This was determined purposely through quota sampling. After the number of respondents was determined, researchers used convenience and snowballing sampling method to easily access to respondents. This was presented in Table 2.

Prior to analysis, the completed questionnaires were coded, inputted, and organized. A coding system of some variables was prepared at the time of the questionnaire design. After the completion of coding, all valid questionnaires were inputted in a coherent format of Statistical Package of Social Science version 20. Finally, survey data were interpreted by using descriptive (frequency distribution, central tendency, and cross-tabulation) and inferential statistics (correlation and regression analysis). During data analysis and interpretation, qualitative and quantitative data were combined in explaining, confirming, refuting, and enriching data from one approach to another. Hence, quantitative data gathered by the survey were used to determine changes in assets, while qualitative data obtained from informant interviews, and observation and assessment of the researcher were used to explain such changes and identify determinants of change, including adaptive strategies and issues related to urban expansion. Moreover, secondary data that were obtained from various data sources were organized

Table 1 Target respondents for interview purpose

Target respondents	Sample of target areas and respondents for interviews					Total
	Debre Berhan	Kombolcha	Dessie	Shoa Robbit	Woldia	
Community leader	2	2	2	2	2	10
Urban administrator	2	2	2	2	2	10
Experts from the towns land administration	1	1	1	1	1	5
Investment office	1	1	1	1	1	5
Total	6	6	6	6	6	30

Table 2 Sample framework of target population to distribute questionnaires

Types of land use	Sample areas and target respondents for questionnaires					Total
	Debre Berhan	Dessie	Kombolcha	Shoa Robbit	Woldia	
Residential	11	13	14	12	12	62
Industrial	14	15	20	14	13	76
Investment other than industry	12	11	16	12	11	62
Total	37	39	50	38	36	200

and analyzed to complement the survey results. Secondary data were analyzed through content analysis.

Results and discussion

The analysis was made based on 200 collected questionnaires from peri-urban evicted farmers and 30 conducted an interview with municipality officials. This survey method is very important to assess current practices on the ground regarding the economic linkage between urban expansion and livelihood of peri-urban farming communities. Proclamations that was adopted at the different time such as FDRE Proclamation No. 455/2005 (Expropriation of Land Holdings for Public Purpose and Payment of Compensation), Proclamation No. 721/2011 (Urban Lands Lease Holding Proclamation), and Amhara National Regional State Regulation No.51/2007 were assessed.

Factors that contribute to urban development

An interview conducted with sampled municipalities' officials in Amara regional state shows there are number of factors contributing to the horizontal expansion of urban to peripheral areas. The main determinant factor for urban expansion in all sampled municipality of Amara regional state was policy reform in 2007. This policy reform created an enabling environment for private investors. They are freely participating in the construction of different industries including manufacturing industries, service sectors, recreational sites, agricultural activities, and different developmental activities. The second factor is the growth and transformation plan (GTP). This encourages expansion of micro and small enterprises, expansion of educational institutions and health stations.

The third main factor for urban expansion was increasing the demand for the residential house of urban dwellers. As the Ministry of Urban Development and Housing (2015) reported that in Amara regional state there are more than 150,000 people demanded peri-urban land for residential purpose. For example, in Debre Birhan Town, more than 120 cooperatives were organized that includes more than 3000 members demanded land for residential purpose and in Shewa Robbit, more than 1872 to requested land for the residential house. In Dassie more than 5000 people and in Kombolcha more than 2500 need land for residential houses. The fourth main factor is mega projects which were undertaken by the federal government. Especially in Kombolcha municipality, due to the construction of the railroad, more than a hundred farmers were evicted. Asphalt road construction and industrial zones evicted many farmers. The fifth factor was rural-urban migration. The population of urban dwellers increased by double in recent time due to rural-urban migration and due to urbanization creates a number of job opportunities. The sixth factor is the availability of basic infrastructures (enabling environment).

A local community and leaders based on their interest, they want to be under the control of urban areas due to the availability of enabling the environment. If basic infrastructures are available, it facilitates the way of living and doing. The seventh factors which contributed to urban expansion were the availability of cash crops. When farmers produce cash crops and generate revenue, they will have the capacity to undertake investments. The other factors were increased awareness of private investors, increased foreign direct investments, and increased establishment of charity organizations.

Economic linkage of urbanization with the livelihood of peri-urban farmers

While urban expanded to peripheral rural land, expropriation of peri-urban farmers is continual and undeniable fact on the ground in Ethiopia. However, expansions at the expense of surrounding farming communities are damaging and loss of farming communities' livelihood. Currently, most farmers are aware of the cost and impacts of losing their land. Some farmers argued comparing losing of their land is equivalent to losing of their livelihood because land is the fixed asset which can be inherited from generation to generations. The peri-urban farmers in Amara regional state are highly vulnerable to negative externalities of urbanization. The economic linkage of urbanization with peri-urban farmers was presented in Tables 3 and 4. Let economic livelihoods of peri-urban farmers are presented by letter Y (dependent variable), Urban expansion is represented by X (independent variable), moderate variables ($M1$ = attitude and skills of peri-urban farmers and $M2$ = municipality intervention), the coefficient of urban expansion is b , coefficient of moderate variables ($M1$ and $M2$) is a_1 and a_2 respectively and constant factors is represented by C . The regression models were demonstrated as economic livelihood of peri-urban farmers (Y) depends on urban expansion (X) and moderate variables (M). Economic livelihood of peri-urban farmers = urban expansion to peripheral areas (b) + moderate variables (attitude $M1$ + municipality intervention $M2$) + constant factors (C) + e . This was summarized as:

$$Y = bX + (a_1 * M1 + a_2 * M2) + C + e$$

$$Y = -0.711X + (-0.219 M1 + -0.039 M2) + 5.801 + e$$

However, from the above Tables 3 and 4, the only significant moderate variable that affects the livelihood of peri-urban farmers and also affects urban expansion to the

Table 3 The degree of impact of urbanization on livelihood of peri-urban farmers, coefficients

Coefficients ^a								
Model	Economic linkage of urbanization with livelihood of peri-urban farmers	Unstandardized coefficients		Standardized coefficients	T	Sig.	Collinearity statistics	
		B	Standard error				Tolerance	VIF
Model 1	(Constant)	5.736	0.067		85.39	0.000		
	Urban expansion to peripheral areas	-0.946	0.018	-0.966	-52.69	0.000	1.000	1.000
Model 2	Constant	5.801	0.064		100.7	0.000		
	Urban expansion to peripheral areas	-0.711	0.047	-0.726	-15.04	0.000	0.124	8.033
	Attitudes and skills of farmers	-0.219	0.040	-0.225	-5.435	0.000	0.169	5.900
	Municipality intervention	-0.039	0.035	-0.040	-1.125	0.262	0.225	4.439

^aDependent variable: livelihood of peri-urban farmers

Table 4 The degree of impact of urbanization on livelihood of peri-urban farmers, excluded variables

Excluded variables ^a								
Model	Beta In	T	Sig.	Partial correlation	Collinearity			
					Tolerance	VIF	Minimum tolerance	
1	Attitudes and skills of farmers	−0.070 ^b	−1.856	0.065	−0.131	0.231	4.333	0.231
	Municipality intervention	−0.232 ^b	−5.672	0.000	−0.375	0.174	5.760	0.174

^aDependent variable: livelihood of peri-urban farmers^bPredictors in the model: (constant), urban expansion

peripheral area is attitude and skills of peri-urban farmers. Municipality intervention is insignificant on the livelihood of peri-urban farmers. The independent significant variable that negatively affects the economic livelihood of the peri-urban farmer is the urban expansion to peripheral areas. It has the major impact on the economic livelihood of peri-urban farmers. Based on this fact, the model is modified as $Y = Xb + a_1M_1 + C + e$ because municipality intervention was insignificant.

So, the above formula is modified and simplified as:

Economic livelihood of peri-urban farmers (Y) = urban expansion to peripheral areas X coefficient + attitude and skills of farmers \times coefficient + others constant variables + e .

This implies to $Y = -0.816X + (-0.21 M_1) + 5.801 + e$

The existing collinearity problems were resolved by the above regression model. Since the level of tolerance of urban expansion, attitude and skills, and municipality interventions are 0.124, 0.169, and 0.225 respectively which are greater than 0.1, there are no collinearity problems. In addition, the variance inflation factor confirmed no multi-collinearity problem. As the above regression model showed that there was the inverse relationship between urban expansion and economic livelihood of peri-urban farmers. The attitude and skills of farmers also affected the economic livelihood of peri-urban farmers and urban expansion. The negative sign showed an inverse relationship. This implied as urban expanded into peri-urban areas, the economic livelihood of peri-urban farming communities will be deteriorated even up to loss of their livelihood. From moderate variables (attitude and skills of farmers) were also significantly affecting the livelihood of peri-urban farming communities in Amara regional state; however, municipality intervention was insignificant. Peri-urban farmers' attitude and skills are also only dependent on agriculture for their economic livelihood and survival. Generally, the attitudes and skills of peri-urban farmers in Amara regional state are affecting their economic livelihood.

As theory and experience of different countries suggest, urbanization creates job opportunities, improve life standard, cost advantage, increase wage rate, and increase productivity. However, peri-urban farmers have no chance to exploit those opportunities due to lack of skills, knowledge, profession, and experience. Indigenous peri-urban farmers are net-losers due to urbanization but new social compositions and private investors are net-winners from peri-urbanism. Not only current practice but also policy cannot support the mutual benefits of private investors and indigenous evicted farmers. While peri-urban farmers lose their land, they lose everything that generated from the land especially lose agricultural activities and income. While designing urban policy

and attracting investors, they should have to work on the survival of peri-urban farmers through horticulture, crops, and livestock.

Economic welfare and impacts of urbanization for peri-urban farmers

As the experiences of different cities in different countries suggest urbanization have enormous economic benefits and impacts on the livelihood of peri-urban farmers.

Economic welfare (pull factors) of urbanization for peri-urban farmers

As practices and experience of different countries and cities shows that enormous numbers of economic benefit are created to urban peripheral areas as the result of urbanization. This is also supported by the model which was developed by Arthur Lewis in the 1950s. This model suggested that there was an interaction of urban to rural which was described in modernization theories of economic development through the paradigm shift of the structural transformation. Its focus was the transfer of agricultural labor and growth of output and employment to the modern urban industrial sector through wages that is higher than subsistence agriculture. It also postulated that the city offers cost-reducing advantages in economic services. The preamble of FDRE proclamation No. 455/2005 also suggests that the urban land delivery system shall give priority to the interests of the public and urban centers to ensure rapid urban development and equitable benefits of citizens and thereby ensure the sustainability of the country's development.

The justification beyond adoption of FDRE Proclamation No. 455/2005 revealed that urban centers of the country have from time to time been growing and the number of urban dwellers has been increasing and thereby land development for the construction of dwelling house, infrastructure, investment, and other services has become necessary in accordance with their respective plans as well as preparation and provision of land for development works in rural areas has become necessary. However, the fact on the ground concerning urban expansion in Ethiopia, does not make peri-urban evicted farmers economic beneficiaries. As collected data from peri-urban farmers of the sampled municipality revealed before expropriation, majority 148 (74%) of the target peri-urban farmers have an annual income of dollar 1240 to 2440 and few 44 (22%) of farmers earned the annual income of dollar 40 to 1240. However, after expropriation most 172 (86%) of evicted farmers earned the annual income of dollar 40 to 1000. Only very few 24 (12%) evicted farmers have the annual income of more than 1000 dollars. Due to urban expansion to peripheral areas, peri-urban farmers were evicted from their homeland. Due to eviction, most of the peri-urban farmers' annual income were decreased and negatively affect farmers' economic livelihood.

The economic welfare of urbanization for the peri-urban farmer was presented in Table 5. As the above Table 5 shows even if urban expansion to peripheral areas creates a number of job opportunities, peri-urban farmers are not economically beneficiaries. Municipality intervention to help farmers in order to provide job opportunity is also poor. Most peri-urban indigenous farmers have no experience to compete with others to get job opportunities and lack of skills, and knowledge also hinders them to get job opportunities. The urban expansion also creates the new social compositions that have varieties of knowledge, experience, and skills. Most indigenous peri-urban

Table 5 Economic welfare of urbanization for peri-urban farmers

No.	Economic welfare of urbanization to peri-urban farmers	Respondents	Minimum	Maximum	Mean	Standard deviation	Pearson correlation coefficient
A	Urbanization create job opportunities	200	1.00	5.00	2.86	1.55	0.277
B	It facilitate to increase productivity	200	1.00	5.00	3.17	1.28	0.301
C	It has cost reducing advantages	200	1.00	5.00	4.03	0.994	0.585
D	It increase wages rates	200	1.00	5.00	3.98	0.997	0.275
E	It improves economic life standards	200	1.00	5.00	2.83	1.36	0.269
	Valid N (list wise)	200					

farmers who were evicted from their homeland are not competent and forgotten part of societies in easy access to job opportunity of urbanization. Urbanization also facilitates to increase productivity in all sectors for its dwellers. However, evicted farmers are not many beneficiaries because most of them are expropriated from the indigenous homeland to remote peripheral areas. When they are removed from that area, it will be covered by new social composition of households. Only a few evicted farmers are beneficiaries of this urbanization economic opportunity.

The two main benefits of urbanization for evicted peri-urban farmers are cost reduce advantage and increase wage rates for those who are living in and close to peri-urban areas. As urban expand in the peripheral areas, basic infrastructures such as road, water, electricity, banks, hotels, health stations, schools, and recreational sites will be built and provided. So, they get such social services and easily accessible and incur low transportation costs. The livelihood of most peri-urban evicted farmers' is dependent on daily labors (Table 6). As urban expand to peripheral areas, it creates numbers of job opportunities and labors are highly demanded on the market. Different private and government projects need large numbers of labor force. Those projects create scarcity of labor force on the market and create bargaining power of labors for their wages. So, they have an opportunity to choose work, choose good wages, and transact their effort and time at reasonable reward.

Economic impacts (push factors) of urbanization on peri-urban farmers

As it was presented in Table 7, the main economic loss of urbanization on peri-urban indigenous farmers are forcing them to live in poverty, loss of income, and food

Table 6 The economic impacts of urbanization on livelihood of peri-urban farmers

No.	Economic impacts of urbanization on peri-urban farmers	Respondents	Minimum	Maximum	Mean	Standard deviation	Pearson coefficient correlation
A	Urbanization affect in loss of income	200	1.00	5.00	3.93	1.14	0.636
B	Evict farmers from suitable location	200	1.00	5.00	3.29	1.38	0.537
C	Food insecurity due to expropriation	200	1.00	5.00	3.87	1.16	0.655
D	Live in poverty due to expropriation	200	1.00	5.00	4.14	1.03	0.532
E	Difficult to cover rehabilitation cost	200	1.00	5.00	3.26	1.32	0.482
	Valid N (list wise)	200					

Correlation is significant at 0.01 level (two-tailed) Compiled from questionnaires, 2017

Table 7 Livelihood strategies after eviction of farmers

No.	Livelihood strategies of peri-urban farmers after eviction	Respondents	Minimum	Maximum	Mean	Standard deviation	Pearson correlation coefficient
A	I launched my own business	200	1.00	5.00	2.51	1.39	0.625
B	I am daily laborer after eviction	200	1.00	5.00	4.25	0.82	0.321
C	I participated on micro and small enterprise	200	1.00	5.00	2.78	1.35	0.412
D	I am hired as the government employees	200	1.00	5.00	1.83	1.49	0.697
E	I am working in private organization	200	1.00	5.00	2.14	1.43	0.654
	Valid N (list wise)	200					

Correlation is significant at 0.01 level (two-tailed) *Compiled from questionnaires, 2017*

insecurity. Before expropriation, they have the residential house in the area, and they generate income from it (use residential house as land mix use). After expropriation, their houses were demolished and lose their income. So, they are subjected to pay rent expense and difficult to cover the cost of rehabilitation. These factors make peri-urban indigenous farmers to live in poverty. Urbanization evicts peri-urban farmers from suitable location, and difficult to cover rehabilitation cost are the other economic effects of urbanization on indigenous farming communities. As data collected from Dessie and Kombolcha, municipality argued that indigenous peri-urban farmers prefer rather than losing their land, they prefer to lose their lives. They consider losing of land equivalent to losing life and livelihood. While we conducted the interview with evicted farmers, most respondents were irritated to remember that event and tearing and emotional to the situation. Most respondents suggested that none of the evicted farmers were improved their livelihood and better economic opportunity. Rather than to be beneficiary from urban expansion, it destroyed their livelihood and removes them from social cohesiveness, suitable location and homeland, and economically advantaged. This might be due to the urban development strategy of Ethiopia is mainly based on compulsory land acquisition. The government takes the nearby peri-urban agricultural land from local peri-urban farmers who have given a lifetime right to use, bequeath, and rent the land through giving the cheap price as a compensation and transfers some to urban residents who have fulfilled the criteria at more prices through lease system (Achamyele 2014; Daniel 2012). After the downfall of the Derg regime in 1991, the Ethiopian People's Revolutionary Democratic Front (EPRDF) came to power and launched the urban land reform with maintaining public ownership of land of the previous era with free-market economy (Zelalem 2014). In 1995, the current government enacted new Federal Democratic Republic of Ethiopia Constitution as Proclamation No. 1/1995 (hereafter may be cited as FDRE Constitution) all urban and rural land is the property of the state and the Ethiopian people (FDRE Constitution, Art. 40). Hence, like the previous regime, sale and mortgage of land are also prohibited.

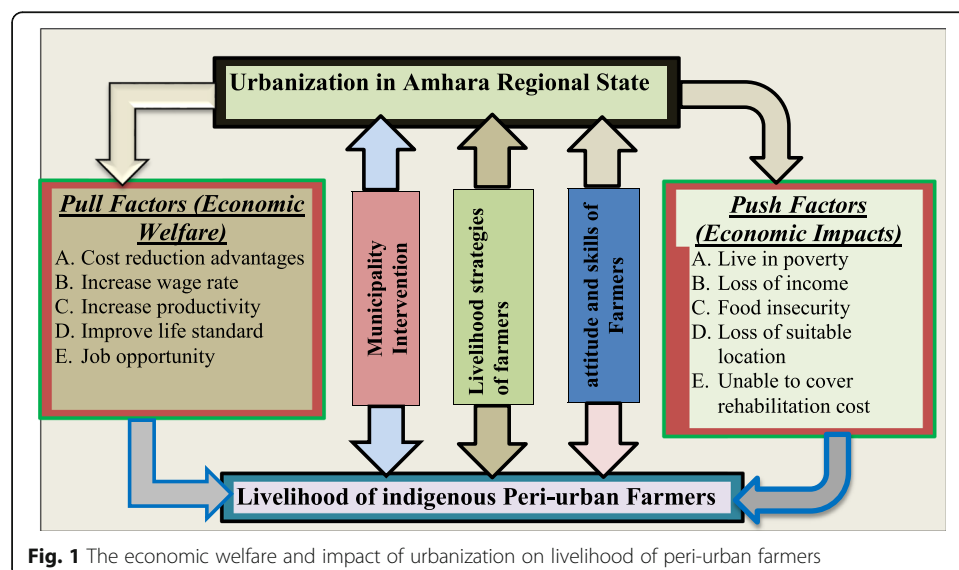
Generally, urbanization has economic welfare (pull factors) and economic impacts (push factors) on the livelihood of peri-urban farmers of sampled municipalities of Amara regional state. The pull factors of urbanization are cost reduction advantages, increase wage rates, increase productivity, improve life standard and create employment

opportunity. Push factors of urbanization are the loss of income, live in poverty, food insecurity, loss of suitable location, and lack of capacity to cover rehabilitation cost. Livelihood strategies of farmers and attitude and skills of farmers are moderate variables that affect both urban expansion and economic livelihood of peri-urban farmers. Although urbanization has some benefits to improve the economic livelihood of peri-urban farmers, municipalities have poor practice (no positive intervention) in order to improve farmers' economic livelihood as the interview conducted revealed. This was summarized in the following Fig. 1.

Livelihood strategies after eviction

In Ethiopia in general, Amara regional state in particular, peri-urban farmers have a grievance and complaints on rehabilitation mechanism of evicted farmers after land expropriation. After expropriation process is completed, no one can monitor and support those evicted farmers. There is no positive municipality intervention to support peri-urban evicted farmers after the expropriation of land was completed.

As data collected from evicted farmers revealed that most of the evicted farmers participate on day labors for their future survival strategies. Farmers believe that there are no others' survival strategies other than agriculture activities. So, when they are expropriated from their land, they have no other permanent job opportunities except to be engaged as a daily labor. With the recent development and municipality intervention, in a few urban areas, they organize evicted farmers in order to participate on micro and small-scale enterprises. If the municipality support and encourage evicted farmers after expropriation in such a way it is the best practice. Few evicted farmers also start their own business that have knowledge and experience of risk associated with loss of land. Only very few individuals also hired as the security guard of some government institutions. According to (Amara Regional State Regulation No.51/2007 2007), private investors who desire to engage in agricultural business shall have the right to obtain land that they may so use from the government through the lease or



from private investors through rental, on the basis of the agreement to be concluded with the latter. It deals with only how to create an enabling environment, attract, and retain investors. However, future survival strategy of peri-urban is not considered. So very few of peri-urban farmers get job opportunity from private organizations.

Generally, a future livelihood strategy of evicted farmers due to the expropriation of land is highly dependent on daily labors. Some of them start their own businesses, and some of them participated in the micro and small-scale enterprises, however, their probability of success and profitability is too low because they are unskilled and inexperienced farmers. Few of them hired in government organizations, however, very few of the sampled evicted farmers' households were hired in private organization.

Perception and attitudes of evicted farming communities

Data collected from all evicted farmers and municipality officials' shows that no individual farmers are politely losing their land but due to fear of laws. Long and short-term livelihood survival strategies of evicted farmers after expropriation are not properly considered by current practices. Evicted farmers have no bargaining power to refuse the decision of urban administration whereas municipality officials have the poor bargaining power to reach on common consensus. Even some evicted farmers said that rather than losing my land, it is better to lose my life. They are comparing the risk and impact of losing their land as either to lose land or life. The attitude of evicted farmers after expropriation was presented in Table 8.

As data collected from evicted farmers and municipality officials presented in Table 8 suggest most of the evicted farmers are losing their land due to fear of government officials and laws. They have no interest to losing their land as data collected from all municipalities revealed. Peri-urban farmers are losing their fixed assets but get temporary benefits of so-called monetary compensations. The monetary compensation is spent on non-productive activities and after a few periods, they will consume and finish all amounts of compensations. Municipality officials have the poor bargaining power to reach on the deal with peri-urban farmers to enforce them in order to reach on common consensus. Most of the time municipalities' mayors were contacted with peri-urban farmers in order to communicate and influence them. Generally, as a real current practice on the ground shows that no single individual farmers are interested

Table 8 Attitude of evicted farmers on land expropriation

No.	Attitude of evicted farmers on land expropriation	Respondents	Minimum	Maximum	Mean	Standard deviation	Pearson coefficient correlation
A	I satisfied on rehabilitation mechanism of the municipality	200	1.00	5.00	2.42	1.39	0.591
B	I was evicted due to fear of government officials	200	1.00	5.00	4.14	1.00	0.358
C	I was evicted due to fear of laws	200	1.00	5.00	4.28	0.987	0.348
D	I was interested due to bargaining power of municipality	200	1.00	5.00	2.25	1.19	0.287
	Valid N (list wise)	200					

Correlation is significant at 0.01 level (two-tailed) Compiled from questionnaires, 2017

to politely lose their land, however, due to fear of laws. This is because; the majority of people know the risk associated with the loss of the land from experience. They compare losing of land with losing their lives and livelihood.

Potential conflicts and challenges due to urbanization

Urban expansion in the peripheral areas is the potential area in which many stakeholders are competing for satisfying of their basic need, economic, and social interest. Peri-urban farmers use their land as the means of livelihood. This indicates their economic and social interest in survival is dependent on the land. Municipality officials are more interested in urban expansion in the peripheral areas due to generate high income and wealthy for the city. Local, regional, and federal governments need for public sector projects and to create the enabling environment for private investors. Private and foreign investors need peri-urban area to expand and diversify their businesses and launch investments. Urban dwellers need peripheral areas for residential purposes. Generally, peri-urban area is an interface of potential interest of indigenous farmers, private investors, local governments, and urban dwellers. Peri-urban indigenous farmers on one side, private investors, municipalities and governments, and urban dwellers on other side compete for peripheral areas for satisfying basic, economic, and social interest.

Every policy, programs, proclamation, and practice in relation to urban expansion should consider the interest of all those stakeholders. Creating the enabling environment for the private investor is not at expense of indigenous farmers. However, losing their land is equivalent to the loss of their livelihood for indigenous farmers. What is very surprising from the interview conducted with Dessie municipality official is that even if municipality officials provide a hundred thousand dollars per M2, farmers have no interest to lose their land. Because they are well-informed and aware of the risk associated with losing their land. Even uneducated farmers consider losing of their land as loosing of their livelihood from experience practices. Those farmers who were evicted from their land in past participate on daily labors and guards. The practice of experience shows that there are no economic and social improvements in indigenous evicted farmers. The not collaborative benefits of the past practice between indigenous evicted farmers and others stakeholders' make peri-urban farmers' hopeless and economic and social impoverishment. The challenges that hinder the livelihood of peri-urban farmers due to urbanization were presented in Table 9.

As the above, Table 9 suggests unfair and inadequate monetary compensation, improper utilization of the compensation, and lack of skills and knowledge of peri-urban farmers are the main challenges that deteriorate the livelihood of peri-urban farmers in Amara regional state. Challenges such as lack of municipality intervention, lack of providing information on time, unenforceable policies, and proclamation which can support the benefits of farmers are also another challenge that peri-urban farmers are now facing. As an interview of sampled municipality officials suggests, there are numbers of challenges such as take land for residential purpose (single purpose) but used for mixed land use (residential and commerce), take huge amounts of land beyond legally allowed for individual households, attitudinal problems (transferring their activities from agricultural to non-agricultural), informal land trading, lack of interest of

Table 9 Challenges that hinders peri-urban farmers due to urbanization

No.	Challenges of peri-urban farmers due to urbanization	Respondents	Minimum	Maximum	Mean	Standard deviation	Pearson correlation coefficient
A	Lack of skills and knowledge of evicted farmers	200	1.00	5.00	3.83	1.24	0.520
B	Lack of good governance and corruption	200	1.00	5.00	3.09	1.29	0.610
C	Improper utilization of compensation by farmers	200	1.00	5.00	4.20	0.987	0.484
D	Unfair and in-adequate monetary compensation	200	1.00	5.00	4.22	0.950	0.479
E	Lack of municipality follow up and support	200	1.00	5.00	3.28	1.34	0.567
F	Lack of providing information to farmers	200	1.00	5.00	3.25	1.41	0.559
G	Un-enforceable policy	200	1.00	5.00	2.91	1.36	0.546
	Valid N (list wise)	200					

Correlation is significant at 0.01 level (two-tailed) *Compiled from questionnaires, 2017*

peri-urban farmers to lose the land, and no consideration of market value (the ratio was settled in 2005 and implementing up to now) is also the main challenge.

Conclusion and recommendations

Based on the analyzed data, the following conclusions and forwarded solutions were made.

Conclusion

Urbanization and urban development in Ethiopia are old practice but recently recognized concepts by the government and developmental factors. Among the regional state in Ethiopia, Amara regional state has the long history of urbanization. No one denies the fact that while urban expanded in peripheral areas; peri-urban dwellers have most likely a chance of eviction from their indigenous homeland. So, peri-urban farmers' evictions from their indigenous land for land re-development are the continuous process that negatively affects the livelihood of farming communities in Amara regional state. Even if there are a number of positive economic opportunities of urban expansion on peri-urban dwellers, municipalities are not doing enough to make peri-urban farmers beneficiaries from peri-urbanism. On the base of our study, we would conclude that creating enabling environment for private investors and urban dwellers at expense of surrounding farming communities constitutes a profound social and cultural laceration that is impossible to refund in economic terms. Such a policy will negatively impact in the long term the development of the city and of the whole region.

The municipality has no bargaining power to influence peri-urban farmers politely lose their land and to reach the common consensus. All societies want basic infrastructures and social services. However, undertaking the public project at the expense, peri-urban indigenous farming communities are not recommendable, loose of the good public image and create public mistrust in the government. The cumulative effects of policy limitations, potential conflicts, unplanned livelihood of peri-urban farmers, poor saving habits of farmers, lack of municipality intervention to protect interest of evicted

farmers, lack of capacity of farmers on competition, negatively affect the livelihood of peri-urban farmers, create mistrust between government and farming communities, and jeopardize the image of government. So urban expansion to its peripheral area is the critical and potential area in which policymakers should design inclusive and integrative policy of mutual benefits for private investors and farmers, municipality should assign qualified and experienced experts on urban planning and designing, measuring, and valuing of properties, and municipality should work on long-term future survival strategies of peri-urban farmers.

Recommendations

Based on the analyzed data and conclusion, the following forwarded solutions are suggested:

- All municipalities in Amara regional state should have fully implement urban policies and proclamation which is adapted for better development purpose. So, for the sake of real better developmental purpose, the future livelihood strategies of peri-urban farmers should be considered during preparation of urban planning and programs, its implementation will be critically followed and public consultations on investment will be done for peri-urban farmers.
- During the creation of enabling the environment for the private investor, the municipality should focus on mutual benefits, common consensus, and collaborative mechanism of both peri-urban farmers and others concerned stakeholders (private investors, urban dwellers, local government, and non-governmental organization). Exclusion of peri-urban farmers from the economic welfare of urbanization and better development can create hopelessness and economic impoverishment that result in crises, mistrust, and jeopardize image of government. Forgotten parts of societies (peri-urban farmers) will no more be forgotten.
- The municipality should record and document income and property, skills, and educational background, livelihood strategy, family size, and occupation of peri-urban farmers before eviction process begin. Based on this recorded document, the municipality should undertake continuous monitoring and follow up in order to improve peri-urban farmers' economic livelihood. Provide necessary support, provide updated information, create the enabling environment through organizing and start the business in small and micro-enterprise, provide containers and make them functional and continue their livelihood than previous is necessary.
- Local government (municipality) should work with other developmental partners like private investors, public project managers, non-governmental organization, cooperative unions, and civil association that are investing and working in the municipality area on providing necessary support like finance, employment opportunity, technical assistance, and training. The municipality should also work with developmental partners to conduct feasible, and problem solver projects; undertake labor-intensive projects and mutual benefits and common consensus to improve poor economic livelihood and poor strategies of peri-urban farmers.

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Declaration

We declare that this article is our original work and all the resources of material used for the article have been dually acknowledged.

Authors' contributions

IMK design, analyze, and interpret collected data. AKC collect and analyze data. NJM analyzed and reviewed the paper. All authors read and approved the final manuscript.

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Availability of data and materials

For the study, the primary data was collected through survey method of questionnaires and interviews from evicted farmers of Debre Berhan, Shewa Robbit, Kombolcha, Dessie, and Waldia.

Competing interests

The authors declare that they have no competing interests.

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