Analyzing the Upshots of Development Induced Displacement and Rehabilitation Mechanisms on the Livelihood of Peri-Urban Households in Ayder Sub-City, Mekelle City

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Abstract

The study was conducted to analyses the consequences of development induced displacement and rehabilitation mechanisms on the livelihood of peri-urban households in Ayder sub-city. Displaced farmers in Ayder sub-city in kebelle Mariam- Dehan residential were considered for the study. The study was initiated with objectives to assess the effects of development induced displacement on the livelihood of peri-urban households and to explore the upshots of rehabilitation mechanisms on the livelihood of displaced peri-urban households. Accordingly, a data was collected from displaced farmers. Primary and secondary data were collected from different sources. Structured questionnaire, in-depth interview, key informants interview and observation were the main sources of primary data. Similarly, proclamations, regulations and guidelines on expropriation land for public purposes & payment of compensation, journals, thesis and websites were reviewed to gather the secondary data. The structured questionnaire was filled by the randomly selected 80 sample respondents through the data collectors. But the sample respondents for in-depth interview and key informant interview were selected purposefully. The in-depth interview was collected by the principal and co-investigator of the study & so did the interview held with sub –city municipality workers. Then, the collected data was sorted, organized and analyzed using descriptive statistics. The results revealed that 550 ha land was overrun by the displacement program. Farmers were displaced forcefully and did not participate in the displacement process. The valuation of property and compensation payments were very much low to sustainably lead their lives. Social disintegration due to displacement weakens the social capital of displaced farmers. Lack of government support and follow up results in the total absent of the basic urban infrastructures & social services in the newly resettled area. Majority (80%) of the displaced main source of livelihood still is agriculture. On the other hand there are some positive improvements in the lives of displaced farmers like finished their houses construction which can potentially important source of financial capital and modified previous way of live through tertiary economic activities such as shopping, small snack houses etc.” It was concluded that annexation of large size of land in short period of time to Mekelle city challenges the future growth of the city as there is no real economic transformation, violation of human rights during displacement, unsustainable livelihood, farmers are not getting appropriate price of valuation and compensation payments and farming still is the major source of livelihood of farmers. Based on the findings it was recommended that sustainable land usage helps for the mutual benefit and sustainable development of city residents and peri-urban dwellers, provision of on time training and access to credit and implementation of integration development plan.

Keywords: land, displacement, rehabilitation, and peri-urban
1. Introduction

A sociologist Michael (2000), points out that being forcibly ousted from one's land and habitat carries with it the risk of becoming poorer than before displacement, since a significant portion of people displaced do not receive compensation for their lost assets, and effective assistance to reestablish themselves productively. Though, displacement from one’s habitual residence and loss of property without fair compensation is considered a violation of human rights. The heart of the problem is that people displaced by development projects are generally seen as a necessary sacrifice on the road to development. The dominant perspective is the positive aspects of development projects, the public interest; outweigh the negative ones, the displacement or sacrifice of a few (Robinson, 2003).

Few researches conducted related to the topic under investigation reported that development induced projects, and rehabilitation mechanisms; take place in the adjacent rural areas has its own impact on the livelihood of land loss peri-urban households. For instance, Quang et al. (2017) studied on Compulsory land acquisition for urban expansion and livelihood reconstruction after land loss in Hue’s peri-urban areas of Central Vietnam. The findings report that the majority of people are able to construct their livelihood with better living conditions. On the other hand, the study also reported increment of vulnerability of the elderly people.

Similarly, in Ethiopia, there are some researchers conducted related to the topic under investigation. For instance, Dejene (2015) studied on rapid urban expansion and its implication on the livelihood of peri-urban farming communities of Sebeta. This study reported agricultural land fragmentation, land insecurity, and loss of farmer’s property, cultural and economic impoverishments as consequences. The research conducted by Getu and Assefa (2015) focused on development-induced displacement and its impacts on the livelihoods of poor urban households in Bahir-dar. From this research, loss of home and lack of urban infrastructure are reported as development induced displacement impacts.

According to Idris et al. (2017) who studies on the expropriation process and rehabilitation mechanisms on some selected urban area in Amhara regional state reported that little attention has been given for the peri-urban interface, due to they are neither being under the control of urban authorities nor under the control of rural authorities.

The above studies conducted in surrounding areas of Addis Ababa and Amhara regional state. Besides, the study of Dejene (2015) focused on urban expansion and its implication on the livelihood of peri-urban farming communities as a whole not on land loss and displaced households particularly. Besides, unlike Dejene (2015) study which was focused on urban expansion and its impact, the present study has also considered the effect of development induced projects of the Velocity textile manufacturing industry on the livelihood of displaced and land loss peri-urban households. Therefore, this study focused on analyzing the Upshots of Development Induced Displacement and Rehabilitation Mechanisms on the Livelihood of Peri-Urban Households in Ayder sub-city.

Unlike Getu and Assefa (2015) study which focused on development induced displacement of poor urban households from the center to the outskirts of the city, the present study focuses on displaced and land loss peri-urban households which means those who lost their land and displaced households are from the outskirts of cities.
On the basis of this research gap, therefore, this research intended to analyze the upshots of development induced displacement and rehabilitation mechanisms on the livelihood of peri-urban households and to the best knowledge of the researcher, though displacement and land loss of peri-urban households is common, the topic is untouched in Tigray region and in the study area in particular. To analyses the upshots development induced displacement, the following specific objectives were designed: (i) to assess the effects of development induced displacement on the livelihood of peri-urban households and (ii) to explore the upshots of rehabilitation mechanisms on the livelihood of displaced peri-urban households.

2. Materials and Methods

2.1 The study area

Tigray is the northern most state of the nine Regions of Ethiopia. Mekelle is a City in Northern Ethiopia and Capital City of Tigray Region. It is located some 783 kilometers north of the Capital, Addis Ababa. It is found at latitudes and longitudes 13°28´ to 13°32´N and 39°38´ to 39°39´E, respectively. The average elevation of the city is 2210 meter above mean sea level. The total area of the City is about 32,000 ha of land (MCA, 2010 and Hadush, 2016). Currently, the City is being administrated in terms of sub-cities divided in to seven viz: Adi-Haki, Ayder, Hadnet, Hawelti, Kedmaye Weyane, Semen and Quiha (MCA, 2010).

Ayder sub city is located on the northwestern part of the city. The area stretches from the city administrative office to Mecebo Cement factory from south to north direction and from May-duba Park to Medhanial church Adha (on the road Mekelle to Abi-adi), east to west direction. Currently, the sub city covers an area of 6485.5 hectare of land (Structure plan of Mekelle City, 2017).
2.2 Methodology

2.2.1 Research Approach
Since the objective of this study has focused on analyzing the upshots of development induced displacement on the livelihood of peri-urban households and rehabilitation mechanisms, to achieve the proposed objectives, the study employed mixed research approach. In this study, mixed research approach substantiates the strengths and weakness of both methods and improves the analytic power of the study.

2.2.2 Research Design
Burns and Grove (2003) define research design as blue print for conducting a study with maximum control over factors that may interfere with the validity of the findings. Therefore, to answer the research questions of this study, the researchers employed sequential exploratory research design that means predominantly the study is qualitative and supported by quantitative. Sequential exploratory research design is a design characterized by an initial phase of qualitative data collection and analysis followed by phase of quantitative data collection and analysis, aiming to increase generalizability of the results and incorporate the strengths of both qualitative and quantitative approaches (Creswell & Clark, 2007). Therefore, the rational to use sequential exploratory research design in this study is to strengthen the study by incorporating of both qualitative and quantitative approaches and to increase generalization of the results.
2.2.3 Data Sources

2.2.3.1 Primary data collection
In order to get firsthand data the topic under study has been deeply investigated the primary sources of data. The primary sources of data in this study were research participants of displaced peri-urban households in Ayder sub-city and municipality officials of the sub-city.

2.2.3.2 Secondary data collection
The secondary data were collected from different reports from government authorities (national, regional, local and city offices), proclamations, regulations, principles on compensation both at federal and regional level and journals, thesis, internet, published and un published documents from relevant organizations which are related to the study were assed.

2.2.4 Target Population
Target sampling of this study was displaced peri-urban households in Ayder sub-city due to the velocity textile factory.

2.2.5 Sampling Technique
This study applied both probability and non-probability sampling techniques. For the qualitative part, this study employed purposive and snow ball sampling techniques. The rationale to select participants purposely is, due to some qualities the participants possess like being assertive, proficient and well informed with the phenomenon. Therefore, the researchers has started with one information rich interviewee and asked them if they know any displaced peri-urban households due to development induced projects due to Velocity textile factory.

Besides, the study used simple random sampling techniques for the quantitative part. The reason behind using simple random sampling was to give equal chance for the target population.

2.2.6 Sample Size Determination
The sample size in qualitative research should not be too large that is difficult to extract thick and rich data. At the same time the sample should not be too small that is difficult to achieve data saturation. According to Creswell J. W. & Clark (2007) sample size in case study is recommended from 5 to 25. This study employed a total of 6 participants for the in-depth interview. Besides, the researchers included 2 key informant interviewees. Therefore, rested on Creswell J. W. & Clark recommendation, the researchers selected 8 sample sizes.

Regarding the quantitative part, the researchers applied Yamane (1967) formula to get manageable sample size. The formula is given as:

\[ n = \frac{N}{1+N(e)^2} \]

Where:

- n is the sample size
- N is the household population size and
- e is the level of precision 90% confidential level.
Rested on the Yamane’s formula, the sample size can be derived by computing the minimum sample size required for accuracy in estimating proportions by considering at 90% confidence level, and the desired precision (margin of error 0.1). Therefore, sample size was determined as follow:

\[ n = \frac{N}{1+N(e)^2} = \frac{418}{1+418(0.1)^2} = \frac{418}{1+418(0.01)} = \frac{418}{1+4.18} = \frac{418}{5.18} = 80 \]

Thus, from the total number households of displaced farmers, 80 households were selected as sample respondents randomly. As result, the total numbers of sample for the study were 88 sample respondents.

2.2.7 Data Gathering Instruments/Tools

In-depth interview, questionnaires, key informant interview, and observation were used as data gathering instruments of this study.

2.2.7.1 In-depth Interview

Data has collected through face to face (one to one interview). The researchers employed in-depth interview to collect data from vulnerable groups. The rational of the researchers to employ in-depth interview is to gather deep knowledge from the vulnerable groups. Moreover, in-depth interview also allows the researchers to dig certain issues until the required data is obtained from the participants.

2.2.7.2 Questionnaires

The researchers have also administered questionnaires to displaced urban fringe households. This study used both close-ended and open-ended questionnaires, and we have used questionnaire because of its convenient to reach to wide participants and appropriate to get relatively uniform data with the given resources. Therefore, to gather the quantitative data with regards to upshots of development induced displacement and rehabilitation mechanisms’ on the livelihoods of peri-urban households, data were collected through self-administered questionnaire that were adopted and developed from different literature. The questionnaire had two parts: the first part consisted of items to assess the upshots of development induced displacement on livelihood of the peri-urban households and the second part consisted of items to explore effects of rehabilitation mechanisms on livelihood of peri-urban households.

2.2.7.3 Key Informant Interview

The researchers have further interviewed key informants from municipality office to collect information about consequences of development induced displacement and livelihood of households and rehabilitation given for displaced peri-urban households and its effects. The researchers have prepared guide lining key informant interview questions to answer the research questions of this study. The interview has conducted in Tigrigna language and the researchers used audio records, and note taking methods of recording interview data simultaneously.

2.2.7.4 Observation

In addition, field a visit has undertaken to recognize the consequences of development induced displacement on the livelihood of displaced peri-urban households. We have prepared a key checklist to do this.
2.2.8 Data Analysis Method

Since this research employed a mixed research approach with exploratory research design, data had analyzed in to two important phases.

2.2.8.1 Qualitative Data Analysis

The study employed thematic and descriptive method of data analysis. As with all data, analysis and interpretation are required to bring order and understanding. Qualitative data collection is usually dependent on interpretation; therefore, the researchers have made several interpretations on the large amounts of collected data. The data collected from in-depth interview, key informant interview, and field observation in this study has organized based on the objectives of the study with the following critical procedures.

In the first step of data analysis, the researchers transcribed the raw data from Tigrigna to English. Secondly, the researchers read the transcription of in-depth interview, and key informants interview multiple times to acquire a feeling about the participants and their responses. Thirdly, the researchers have underlined meaningful statements from the transcript that directly pertained to the problem under investigation: displacement and rehabilitation mechanisms on the livelihood of urban fringe households. Here, the researchers grouped related pieces of information. At the fourth step, the researchers created clusters or themes. In order to validate clusters or themes, the researchers have conducted a comparison with the original interview and refine them to reflect the intent of the participants. Finally, the researchers described the results thematically.

2.2.8.2 Quantitative Data Analysis

The quantitative data in this study has been analyzed using descriptive statistical analysis. After the researchers have collected the questionnaires from respondents, it had checked for response accuracy. The data collected from close and open ended questionnaires has been organized and coded for analysis. Then, the researchers entered the organized and coded data to SPSS (V.20) and analyzed via descriptive statistical analysis of percentages and frequencies to analyze the status of displaced peri-urban household’s livelihoods.

3. Results and Discussion

3.1 Effects of displacement

3.1.1 Original place of residence

Based on the information gathered from the questionnaire and Ayder sub-city municipality office, before displacement the farmers lived in two localities or rural kebelles namely: part of Mahbre Genet and Mariam Dehan in village of Adi-Kana-Awaled and Halawlie. Both the localities and the villages are under the administration of Ayder sub-city. These villages are located on the North West of the present residence of the displace people. They are found at an average distance of 7kilometers at the mentioned direction form their present resident.
3.1.2 The size of land lost due to displacement

As the data gathered through questionnaire and the interview held with key informants reveals, there were two types of land lost: namely residential and cultivable land farms.

As the farmers are displaced, all of them lost their residential lands. But in addition to that half (51%) of them lost their cultivable lands as well. The size of residential area lost ranges from 250 kare or meter square to 1000 kare (the average being 625 kare) but most (75%) farmers’ residential ranges from 400 to 800 kare. The agricultural land lost on average was half hectare (2 tsmidi). As per the data collected from the key informants show the total land lost due to DID was 200 and 350 ha resident and farmland respectively. This is a large size of land. Therefore, one can conclude from this dispossessing such a large amount of land question their food security as land is the main source of their livelihood asset. To show its impact let’s look at the story in the following box from the in-depth interview.

Box one: Effects of DID on farmlands

“Now, I am 42 years old woman. I have displaced in August 2014 from my original place of residence. I had lost 500 kare (meter square) residential land and one and half ha farmland. We had two oxen, a cow and a donkey. No farmland has left at my possession. The sub-city municipality gave me 500 kare residential area. Half of the 500 kare (250) area is sold to construct houses on the reaming plot. Yet the houses are not completed. So, my family life is unsecured as there is no permanent source of income. It seems me a dream to live without farmland. How can I forget the plentiful gift of my farmland and all the activities are everlasting in my memory? But, thorough time I have tried to adapt the new life.”

3.1.3 Conditions of displacement

Displaced farmers were asked if they were displaced voluntarily or forcefully. As Table 1 indicates, 100% of the farmers replied as they were displaced forcefully. Farmers provided the following justification: “we did not have any information when to displace. “We have displaced because it was an order from the government.” They have started to demolish houses on our neighbors through bulldozer.” The information from the interview with key informants supported the above idea as the farmers were displaced suddenly.

The action taken by the local government is against the Federal government proclamation on expropriation of land holdings for public purposes and payment of compensation proclamation No. 455/2005 and Tigray National Regional State Guideline on expropriation of landholdings for public purposes and payment of compensation for land and property of 2008. The Federal government proclamation mentioned above article 4/1 stated that “Where a Woreda or an urban administration decides to expropriate a landholding, it shall notify to the landholder” in writing, indicating the time when the land has to be vacated and the amount of compensation to be paid.” Regarding the time need to submit the land sub article 2 announced it shall not be less than 90 days. Similarly, the Tigray region Guide line 2008 article 8/3 indicated that “the land holder has the mandate to demolish his house with in three months from the day received the letter on expropriation.” There are main questions or issues to be raised here but we will back to this issue in the next discussion part.
Table 1. Conditions of displacement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions of displacement</td>
<td>Voluntarily</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Sample survey, 2019

3.1.4 Reasons for displacement

It is a hard fact that if the population of an area increases and urban area grows, demanding new lands in the peri-urban areas is inevitable. This becomes a common phenomenon in the capital city of Ethiopia, Addis Ababa and in most of capital cities of the regional states of Ethiopia like Mekelle (Adem.2010). Thus, there are many reasons for the annexation of peri urban lands to urban areas. Sample respondents were asked to choice the reason to displace from their residential areas. Accordingly, all the respondents (100%) as displayed in Table 2 answered private investment. The information from the interview held with key informant is in an agreement with this idea. It is due to the Velocity Apparelz Companies PLC textile manufacturing industry. Similarly, the information from in-depth interview supports these ideas. Here we observe a big contradiction with constitutional law of the Federal Democratic Republic of Ethiopia article 40/8 as land is to be expropriating to public purpose only. Public purposes refer to all investments and developments which benefits residents equally. However, the land is taken for private investment. So, one can conclude here the reason for displacement is not constitutional. Or this is not sufficient reason to displace farmers from residential area on the name of private investment.

Table 2. Reasons for displacement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reasons for displacement</td>
<td>Residential</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Source: sample survey, 2019

3.1.5 Information on Displacement

Information on displacement helps people to get ready in all way round of life including psychological preparation. The FDRE proclamation No.455/2005 and Tigray guideline 2008 articles 4/2 and 7/1 respectively gives not less than ninety days duration of time. The sample respondents were asked if they have information with regard their displacement. As shown on Table 3, majority of them (77.5%) of respondents did not have any information on the time of their displacement.
They have received the information when they have remained two weeks to displace from the community representatives and through rumor from their neighbors. This is to mean that the responsible body transgresses the above mentioned FDRE proclamation No. 455/2005 and the Tigray Guideline 2008. This is because the Tigray regional guideline 2008 article 7/1 states that the responsible administration (in this case the sub-city municipality) has the obligation to announce in letters the period when the land is going to be submitted.

Table 3. Information on displacement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information on displacement</td>
<td>Yes</td>
<td>62</td>
<td>77.5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>18</td>
<td>22.5%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Sample survey, 2019

3.1.6 The year of displacement

There were two seasons for displacement, mainly. These were summer and autumn 2014. The information from the key informants’ interview also agrees on time of displacement. It is not reasonable and culturally right to displace farmers at these seasons because these seasons are critical seasons for agricultural activities. Let’s see a case from the in-depth interview on the time of displacement on the next box.

Box Two: the time & condition of displacement

“I am 55 years old man. I have displaced from the village of Adi-deki –Kana Awaled. Our family size is 10. I didn’t want to remember the worst occasion of displacement. I have displaced on 22 August, 2014(August 16, 2006 E.C). It was a much known holy day of St. Mary (“Ashenda festival”). We have suddenly and forcefully displaced from our home. We didn’t eat and drink anything from what we have prepared for the holy day. We were troubled psychological extremely. Our environment was full of cry and noise. It has created a bad memory in our mind. Our farm (almost mature crop) was ploughed by bulldozer while we stand there. We told us to move all our goods to outside. There was no house to stay. What makes very difficult to find a shelter were, the rainy summer season and we had three oxen, two cows and three calves and a donkey. We ask our relatives in the nearby village to stay and resettle with them for the next one & half years. We have passed the hardest time. We thank them a lot.”

We can infer from this box immediate problems associated with dislocation: violation of human rights including their religious celebrations, psychological stress, and loss of crop production.
3.2 Rehabilitation mechanisms and its effects on the livelihood DID Households

This section deals with the impacts of rehabilitation mechanisms on the livelihood of the DID farmers. Thus, it discusses if there is time of preparation for displacement, benefit packages of displaced people, problems during valuation of property and payment of compensation, government support during and after displacement, trainings, and sources of livelihood after displacement, provision of infrastructures, improvements and challenges after displacement.

3.2.1 Time of preparation

Respondents were asked if they had time of preparation for displacement. Majority (75%) of them did not have any time for preparation as revealed in Table 4. Even those who have a time for preparation were bought this time since they were displaced at autumn season. So, they have learnt from their neighbors who displaced in summer season. This has many negative consequences. It denies the opportunity to collect their farm assets. It despairs their future hopes. More than any other thing it violates the FDRE proclamation No.455/2005 and Tigray guideline 2008 and their human rights.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>20</td>
<td>25</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: Sample survey, 2019

3.2.2 Preconditions for displacements

When people are going to displace from their original place of residence, government need to set some preconditions to handle problems on time. The preconditions may include preparing a site to resettle, working on the infrastructures, preparing trainings on coping up mechanisms with the new life, discussing on the purpose of displacement and the time (Aschalew, 2016). The displaced farmers were asked if there were preconditions of preparation for their displacement. As the responds collected from in-depth interview show there was no preparation period. Similarly, the information on the interview with key informants supported this idea. As we have seen in the above table and discussions, there was no preparation made to displaced farmers.

3.2.3 Benefits packages for displaced people

Both the FDRE proclamation No. 455/2005 on expropriation of Landholdings for public purposes and payment of compensation and Tigray Regional guideline 2008 on expropriation articles 8/4/a & b and 15/1 stated respectively displaced people of urban residents have to get a plot of urban land and payment of compensation for demolished house with one year house rent payment. Data from the open ended question and the in-depth interview of respondents revealed that they have provided a plot of land (400/500 kare) for resident, house rent payment 9000 ETB (for those who were displaced during summer season for three month) or 4000 ETB (for those who displaced during autumn), compensation
for demolished houses and other properties like eucalyptus tree. The data from the interview with the key informants also shows that the displaced people got a plot of land and compensation for property. It seems very important to appreciate the commitment of the municipality to allot such size of land in urban area.

3.2.4 Problems during valuation and payment of compensation

The amount of payment for house rent is not according to the law. This is because they have received for three or two months but they have to receive for one year. According to the law the valuation standard for a house is approved by the city cabine and need to revise timely to consider the current cost of house construction materials and other related costs. It is the duty of the city bureau of construction to set & revise every three months by setting standard price for a house. According to 2012 (2004 E.C) (which has passed three years) Mekelle city bureau of construction standard the minimum price for a house was 66,962.11 ETB. Yet there are many farmers who received below this amount. The other problem was because of lack revision the minimum standard value was lag behind other urban centers as an example for the same time the minimum price in Adigrat city was above 120,000 ETB. The minimum standard value was revised in 2019 after seven years and accordingly it is 289,000 ETB which is more than fourfold of the previous calculated price.

The other problem was most of the respondents didn’t received compensation for removal, transportation and erection of their property based on the regulation No.135/2007 (article 3/2b). Even some of the displaced farmers claimed that their stones were takeaway by Velocity Apparelz Companies PLC textile manufacturing industry to use for construction. Farmers acquired a plot of land after displacement. This contradicts the law. It is illegal to displaced farmers before preparing a land to resettle (Proclamation 455/2005). The other critical observed problem was the land valuator committee which is made up of 5 individuals composed of representative of the community and the sub-city municipality lacks professional skills on valuation which also contradict the proclamation No. 455/2005. Because of this still now there are complain on the amount of compensation. As an example let’s see the following box from the in-depth interview.
Box three: grievance on valuation and compensation

“I am 56 years old woman. I have 8 members in my family including my husband. My occupation is farming with 18 quintals of annual income. I have displaced in January 2017. We have received 130,000 ETB compensation for our demolished “Hidmo” houses. But I have a big grievance for the responsible body of the government who denied me to pay compensation for my son and daughter demolished houses on the yard of our resident which were estimated 35,000 and 23,000 ETB respectively”. In addition they have refused me to pay for my removed eucalyptus tree which was valued 3000 ETB. Lastly, the stones from the demolished “Hidom” houses and fences of our landholdings takeaway by Velocity Apparelz Companies PLC textile manufacturing industry.”

3.2.5 Government support after displacement

As displaced farmers are new to the environment and life, they need the support and follow up of concerned bodies to adapt the new environment quickly. Displaced farmers were asked if they have got support and follow up from the responsible body. As shown Table 5, all respondents (100%) replied no. The information gathered from the key informant was similar. The key informants added according to the guideline it was supposed to help them to find jobs and providing credit programs of up to 50% of their saving. The sub-city (Ayder) small and micro enterprise office has the responsibility to facilitate all this but it was not informed by the sub-city municipality due to lack of integration in their work and absence of devotion farmers remain helpless.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Government support after displacement</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: Sample survey, 2019

3.2.6 Basic skills training provide to enable displaces

Providing trainings to empower the displaced farming communities with important basic skills like business start-up, financial management and saving and basic skill and technical training is fundamental that would enable them sustain their life after dislocation (Endeshaw, 2016). But, as indicated in Table 6 none of the respondents (100%) did get trainings. This deteriorates their coping up capacity and their capitals especially their financial and human capital.
Table 6. Basic skills Training

<table>
<thead>
<tr>
<th>Variable</th>
<th>Basic skill training</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>80</td>
<td>100</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: Sample survey, 2019

3.2.7 Farmers main Sources of livelihood after displacement

With regard to the main source of livelihood of displaced farmers, for majority (80%) of them has been farming (Table 7). Only 5% farmers’ source of livelihood is non-farming while the remaining farmers are dependent both on farming and non-farming. In the open ended questionnaire farmers were asked to list their annual harvest (in quintal) before and after displacement. Accordingly, the average yield was 16 & 7 quintals before and after displacement respectively. The reason for reduction of production were firstly some farmers have lost some of their lands and secondly due to the difficulty of managing of oxen at the new environment. Thus, some of the farmers rent their farmlands for non-displaced or permanent farmers. In the non-farming means of livelihood respondents mentioned small business activities like shop, small snack houses, masonry, carpenter and driver as the most common types of economic activities. The average income of non-farming per month was 3500 ETB. So, one can conclude from this they have kept their former base of livelihood directly or indirectly.

Table 7. Farmers’ main source of livelihood after displacement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Farming</th>
<th>Non-farming</th>
<th>Both</th>
<th>Total</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source of livelihood after relief</td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>64</td>
<td>80</td>
<td>4</td>
<td>5</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Sample survey, 2019
Box four: Lack of credit and power shortage limited the potential growth of an enterprise

“Now, I am 35 years old. I have four children. We have displaced in March 2017. We owned a milling factory. We had 1100 square meter area land and 10meter*5meter residential room. We have received 1000 square meter land and have built 4*4 meter room for our housing. We had paid 240,000 ETB for the demolished two rooms, cost of removal, transportation and erection of the milling factory and other losing assets. We have invested 370,000 ETB to reestablish our milling factory especially to buy a small transformer. We had minimum 5000 ETB monthly income. But today, due to the limited power supply and new environment we haven’t certain income. The milling factory is run by my husband. We have created employment opportunity for five workers. We had suffered a lot to reestablish our live and our milling factory. It took us almost one year. The main challenges presently are: we are not working at full capacity as we did in our previous residential due to shortage of power, lack of basic infrastructures particularly road. The other serious challenge is lack of access to credit. If we can get access to credit, we may take credit up to 500,000 ETB. Had this be successful, we would work at full capacity. And employ up to 20 workers.”

Let us forward a comment here: the couples are good examples of successful youth entrepreneurs. Thus, the local administration shall give them prior attention in supplying their demand particularly on power and credit to fulfill their inspiration. So that they can create more jobs and provide better service to the new settlers and enable them to use their capacity.

3.2.8 Total asset before and after displacement

The information gathered from the surveyed households and in-depth interview indicated that the displacement influenced the amount and number of assets including domestic animals owned by the displaced farming communities. In this regard most of the respondents from sample households reported that they are possessing less than owned before displaced. Table 8 presents changes in the assets ownerships as a result of displacement program in the sub-city. Based on the data presented on the table, all types of livestock significantly decrease their number. The reasons provide includes: expropriation of farming land, lack of adequate space and suitable place to keep livestock on.
Table 8. Assets Possessed by Households before and after Displacement

<table>
<thead>
<tr>
<th>Types of assets possessed</th>
<th>Before displacement</th>
<th>After displacement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No (%)</td>
<td>No (%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Before displacement</td>
<td>After displacement</td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;1Ha</td>
<td>21(26.25)</td>
<td>&gt;1Ha</td>
<td>5(6.25)</td>
</tr>
<tr>
<td>1Ha-0.5 Ha</td>
<td>48(60)</td>
<td>1Ha-0.5 Ha</td>
<td>20(25)</td>
</tr>
<tr>
<td>&lt;0.5 Ha</td>
<td>9(11.25)</td>
<td>&lt;0.5Ha</td>
<td>40(50)</td>
</tr>
<tr>
<td>I don’t have land</td>
<td>2(2.5)</td>
<td>I don’t have land</td>
<td>15(18.5)</td>
</tr>
<tr>
<td>Cattle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;20</td>
<td>0</td>
<td>&gt;20</td>
<td>0</td>
</tr>
<tr>
<td>11-20</td>
<td>6(7.5)</td>
<td>11-20</td>
<td>0</td>
</tr>
<tr>
<td>6-10</td>
<td>27(33.75)</td>
<td>6-10</td>
<td>2(2.5)</td>
</tr>
<tr>
<td>1-5</td>
<td>35(43.75)</td>
<td>1-5</td>
<td>22(27.5)</td>
</tr>
<tr>
<td>I don’t have cattle</td>
<td>12(15)</td>
<td>I don’t have cattle</td>
<td>56(70)</td>
</tr>
<tr>
<td>Sheep</td>
<td>I don’t have sheep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goats</td>
<td>I don’t have goats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poultry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;25</td>
<td>15(18.75)</td>
<td>&gt;25</td>
<td>0</td>
</tr>
<tr>
<td>10-25</td>
<td>5(6.25)</td>
<td>10-25</td>
<td>0</td>
</tr>
<tr>
<td>&lt;10</td>
<td>20(25)</td>
<td>&lt;10</td>
<td>28(35)</td>
</tr>
<tr>
<td>I don’t have poultry</td>
<td>40(50)</td>
<td>I don’t have poultry</td>
<td>52(65)</td>
</tr>
<tr>
<td>Donkeys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;2</td>
<td>10(2.5)</td>
<td>&gt;2</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>53(66.25)</td>
<td>1</td>
<td>25(31.25)</td>
</tr>
<tr>
<td>I don’t have donkeys</td>
<td>17(21.25)</td>
<td>I don’t have donkeys</td>
<td>55(68.75)</td>
</tr>
<tr>
<td>Horses</td>
<td>1</td>
<td>5(6.5)</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Sample survey, 2019

As per the information collected from the in-depth interview shown some farmers in addition to the above mentioned assets, they had possessed eucalypts and other trees and cactus on their yards which later destroyed due to the program of displacement. This affects also the ecological balance which serves as good regulator of urban heat island effect.
Box five: losing livestock assets

“Now, I am 60 years old man. I had two oxen, two cows and calves and a donkey. I have sold out all of my livestock due to constraint of space and lack of feed as our farmland had expropriated totally. The livestock was source of fuel (cow dung), important source of diet and income by selling milk and other livestock products but most importantly it was source of financial capital during shocks by selling them. From my observation, the livelihood of this family is worsened due to loss of this important asset because they had not transferred their means of livelihood. We have no permanent source of income today.”

3.2.9 The status of house constructions

As we have mention in the previous discussions displaced farmers have got 500/400 kare of land for residential. Thus, sample respondents were asked to answer if their house is fully completed its construction. Based on Table 9, only (20%) have completed their house construction fully. This may be due to financial problems and management to complete their houses.

Table 9. Status of house constructions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>House construction fully completed</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>%</th>
<th>No</th>
<th>%</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>20</td>
<td>64</td>
<td>80</td>
<td>80</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source sample survey, 2019

3.2.10 Provision of Infrastructures

Urban infrastructures like clean water, electricity, roads and communications among others and social services such as schools and health services are necessary and important facilitates for the healthy functioning of an urban center. Sample respondents were asked to choose from the list of infrastructures and social services as shown Table 10. Surprisingly enough, none of these services are available. The information gathered from the in-depth interview and key informants is the same. The study asked the interviewee their agreement with sub-city municipality on these services before displacement, they have replied as they have been promised to move to an area where there are better services of clean water, electricity and other services. Similarly, the study discusses the problem during the interview with the key informants. Yes, it is the problem of the sub-city administration to keep the promised word. We have a big shortage of budget replied the key informant in his interview. According to urban plan it is mandatory at least to provide clean water supply, electricity and roads. The researchers observed during data collection as these services are not full filled. Thus, the question is how did they get access to some of these services? To answer this question let’s see the following box from the in-depth interview.
Table 10. Availability of infrastructures and social services

<table>
<thead>
<tr>
<th>Variables</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean water</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Roads</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Electricity</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Telecom</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>School</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Healthy center</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>All services</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>None service</td>
<td>0</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: Sample survey, 2019

Box-six: Status of infrastructure and social services

“Now, I am 67 years old man and I have 8 children. We have been displaced in summer 2014 and settled after one year (2015). Since we came here we have no clean water, electricity, school and health center services.

We have no tape water supply. So we have forced to go long distance to get the service. Most of the time, we were forced to use unprotected water which has many effects on our health. It is the responsibility of our children to fetch water. Sometimes we pay 50 ETB per metric cubic from horse drawn vehicle (cart) for non-drinking purposes. This leads us to unnecessary expenses and wasting of our time for unproductive activities.

Educational service is also another problem as there is neither public nor private school for our community. As a result, our children are obliged to travel long distance to use the service.

Generally, the people are living in an area with absent of basic urban infrastructures and social services. Thus, it needs an urgent solution by the concerned body.
3.2.11 Status and types of employment

Table 11 shows the status and types of employment of displace HHs. Accordingly, 50%, 37.5%, 8.7% & 3.7% of them are jobless, daily laborers, self-employed and government and private employs, respectively. This reveals jobless is a big problem for displaced people. The interview held with key informants on the status and level of difficulty to access jobs confirm this idea that there is difficulty of getting jobs that is why the only option is become daily laborer. This is the obvious lack of support of the sub-city small & micro enterprise office to create jobs opportunities. It is supposed that displaced farmers have to prioritize in getting job in the Velocity textile factory (the cause of displacement) according to the guideline but this is not the case.

Table 11. Status and types of employment

<table>
<thead>
<tr>
<th>No</th>
<th>The types of employment</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jobless</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Daily laborer</td>
<td>30</td>
<td>37.5</td>
</tr>
<tr>
<td>3</td>
<td>Self-employment</td>
<td>7</td>
<td>8.7</td>
</tr>
<tr>
<td>4</td>
<td>Government &amp; private organizations</td>
<td>3</td>
<td>3.7</td>
</tr>
<tr>
<td>5</td>
<td>If any else</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

Source; sample survey, 2019

3.2.12 Improvements after displacement

Sometimes there may be positive improvements in the socio-economic lives of displaced people. Sample respondents were asked to list down and explain if there are improvements in their lives. Accordingly, they have mentioned the following points:

- We have received a plot with site plan: unlike the former residence we have received a plan for our plot and house. Thus, we have no doubt on the plan security of our house.
- We come very near to the hub of the city: the place we are living now is very near than our former residence. This brings us easy access to our sub city municipality and other urban center services.
- We have received 400/500 kare plot of land: we have the possibility to sell out half of it and finished our houses. Those people who sold as early as they have received the land are disadvantageous where as those who sold their land recently are more privileged as the present price of 200 kare land exceeds one million. As a result, there are some HHs who have finished their houses successfully.
3.2.13 The major challenges of displaced people on their livelihoods

DID is one of the causes of displacement and has resulted in negative consequences in the livelihood of the internally displaced peoples.

The most serious problem faced by displaced people as we have mentioned above is the absence of the basic infrastructures and social services. But, these are not the only problems as there are still other problems which include among others:

- **Social disintegration:** since we have allotted the new plots through lottery system we have missed our neighbors and relatives. This brings to weaken our social connections which were practiced in “idr” and religious commemorations and other social ceremony. Even children are disappointed to adapt the new environment quickly.

- **Difficult to manage farms:** as mentioned above most of the displaced people source of livelihood is farming (80%). As their current place of residence is far from the farm areas, it becomes difficult to manage their farm activities. So, they are obliged to rent their farmlands. Furthermore, farming activities becomes difficult due to the shortage of space for keeping livestock and storage for animal feed like straw.

- **Lack of access to credit:** many farmers did not complete their houses. To finish the remaining construction they do not get access to credit. Access to credit is also necessary to start other alternative means of livelihood.

- **Absent of basic goods from kebelles:** since there is no kebelle body that follow up their lives goods which are provide in kebelle which are not easily available in the market like oil, sugar and flour are not given. Absent of kebelle regulation body also leads to uncertainty of movement of people to and out of their home during night times.

- **Lack of environmental sanitation:** as the basic urban infrastructures and services are not fulfilled, it has easily exposed to almost absent of environmental sanitation. The other factor which aggravate the absent of environmental sanitation is the people lacks awareness on how to live in an urban area. For this reason, they throw away their domestic wastes near their houses. Due to lack of water and unfinished work of toilets, they use the free space to get rid their human feces.

3.2.14 Compromising urban growth and displacement

Where there is urban growth and development, land consumption is an inevitable, because the physical expansion of an urban area and urban development is going on spatial environment (Adem, 2010). This is especially true for fast growing cities like Mekelle which annexed every year large agricultural lands at its neighbors. As the most recent data shows, the city of Mekelle annexed nine rural kebelles in to its administrative territory only in three years (2014-2016). Within these years 3200 ha of land incorporated to the city administration boundary. From these Kebells three of them were incorporated to Ayder sub-city (Gunbet 20, Adiha and parts of Kebelle Mariam -Dehan) (Mekelle city structural plan, 2017). It is with the objective this we have raised the issue how to compromise urban growth and displacement with key informants.
After a depth interview, we come up with following points. It is necessary to revise the proclamations and regulations 
(Proclamation No.455/2005”Expropriation of landholdings for public purposes and payment of compensation” and 
regulation No.135/2007”payment of compensation for property situated on landholdings expropriated for public 
purposes.”). This revision is mainly essential to consider the current value of land and present market cost of items as well 
as status of farmers during compensation process.

With this also there need to consider the revision of municipalities manuals to include social workers and food security 
experts who are very supportive during displacement process by providing relevant information and advice to displaced 
people. Even it is very important to integrate the disintegrated bureaus and office works especially both the municipality 
and small and micro enterprise offices. Thus, they can support displaced people effectively and efficiently on time.

4. Conclusion

 On the top of meeting the objectives of the study and based on the major findings, the following conclusions could 
be drawn. The study exposed that Mekelle city has growing rapidly almost on all sides at the expense peri-urban 
areas farms lands just like the study area. The growing of the city has brought negative consequences on the 
livelihood of the peri-urban farmers. From this one can conclude that solving these problems is critical for the 
sustainable development and mutual benefit of both the city dwellers and peri-urban settlers. The total land size 
overrun by displacement was 550ha. This shows large land size of peri-urban area is incorporated to the city 
within short period of times. This implies also a large farmland is changes in to urban land use.

 With regard the conditions of displacement it was proceeded forcefully, even with violation of some human rights 
like demolishing mature crops and houses. Furthermore, the reason farmers were displaced is not constitutional 
as the land is given for private investment. It is due to this reason that farmers are not informed and dislocated 
during critical work season in summer and autumn. This infers laws, regulations and guidelines are remaining on 
paper. Also, this may lead to conflict between government actors and local farmers.

 There was low valuation for demolished houses due to the absent of timely revision of guidelines for more than 
threeyears. With this also the property valuation valuators are not chosen based on their professional skills as 
mentioned in the regulation. This suggests that farmers are not getting the benefit packages as stated in the 
documents. So, this lead to poor conditions of life and developing negative attitudes towards government. The 
problems observed in the compensations payment for expropriated farmland was also similar. The value of one 
square meter is 2.3 ETB and the multiplier is 10 year. All these and other related problems raised due to the non- 
scientific and outdated use of laws.

 The responsible body of government did not provide appropriate support before, during and after displacement of 
farmers like training and credit. It is due to this reason that the displaced farmers did not have any basic urban 
infrastructures and social services. This implies they are in urban area but alien to urban services. The livelihood 
of majority (80%) of the displaced farmers is still agriculture. This implies the rehabilitation and compensation 
packages did not help to adapt new ways of livelihood.
The study didn’t show clearly the status of the major capitals of livelihood assets for all sampled HHs. This due to the reason that the farmers are immediately using the compensation money and the money from their sale of half of their plots as all of them has sold half their plots. But still there are some clear indicators of status of livelihoods especially as we have presented in the boxes. In addition majority of displaced HHs houses are unfinished, the annual agricultural products has dropped from 16 quintals to 7 quintal, some farmers have already lost their former livestock assets and absent of basic Kebele goods like oil and sugar. In short they have high potential for exposure of high risk of food insecurity as their capitals lacks sustainability. Still there are few examples of successful displaced farmers who finished their houses and who modified their previous livelihood successful. This show us if famers are supported on time they can improve their lives. So, we can conclude that further research which can explore the situation in near future is recommended.

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