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Socio-cultural Impacts of Physical Infrastructural Expansion on Local People in Selected Rural Villages of Machakel Woreda, Amhara Regional State, Ethiopia

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Abstract
The aim of this study is to analyze the socio- cultural impacts of physical rural infrastructural expansion on the social life of rural people with particular reference to rural people of selected villages at Machakel Woreda, East Gojjam zone of Amhara regional state. The study mainly employed qualitative research approach. Different tools of data collection were used to collect primary data. Results of the study are therefore; based on in-depth household and key informant interviews, focus group discussions and field observations. Physical infrastructures contributed to the health status of villagers. Clean drink water and rural roads as pre-requisites for health posts are essential for healthy and productive rural man power. Such infrastructures were also important for raised awareness and improved consciousness level of rural people in the study area. The study identified both negative and positive impacts of physical infrastructural expansion on the social life of the people in the rural area. These impacts were on social networks and institutions, on the relationship among rural people themselves and on the relationship between rural people and surrounding urban residents. The unbalanced distribution of physical infrastructure across rural localities created inter and intra-village displacements, that in turn affects peoples 'involvement in the social organizations of idir, iquib and mahiber. Positively, rural people created and strengthen their ties, though some others' relationship was disrupted during and after the expansion of infrastructure. The social relationship between rural people of the study area and surrounding urban dwellers was also found to be facilitated.
Keywords: Rural villages, Machakel woreda, physical infrastructures, socio-cultural impacts and rural people
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1. Introduction

In the present day, Ethiopian government is working on the expansion of infrastructures all over the country including rural areas. The inclusion of infrastructural development as a pillar in the development agendas of the country is one evidence for this emphasis. One of the seven pillar strategies set to achieve the GTP (2010/11-2014/15) by EPRDF is enhancing expansion and quality of infrastructural development. The GTP saw the expansion and maintenance of infrastructure such as road, power and water supply from the stand point of enhancing and sustaining pro-poor growth by way of job creation, initiating domestic industrial development, thereby contribute for poverty eradication efforts of the country (MoFED, 2010:8-9).

Under the GTP, GoE's objective was to improve the efficiency of infrastructure sector and provide access to all *kebele* centers and develop capacity for maintenance and construction. The road sector development program (RSDP) entails ETB 125 billion for construction and upgrading of 97,000 kilometers of roads. Also the governments' priority in the energy sector is to increase electricity access and reliability (African Development Bank Group, 2011:16). Strengthening of infrastructure backbone of the country was also among the pillar strategies under the previous five year development plan PASDEP (2006-2010) (MoFED, 2010:4). This shows that the government of Ethiopia gave due emphasis to the provision of infrastructures in the country. As a result, achievements were obtained.

Rural infrastructural investment has certain impacts on the general socio-cultural and economic life of rural people. Infrastructural investments like rural roads, for example bring about reductions in transaction costs, improved diffusion of technology, increased specialization, diversification of livelihood activities, better input and output prices, and improved entrepreneurial ability (Ahmed and Donovan, 1992:29). Electricity is proved to have big favorable impacts on the livelihood of rural people because not only it is useful for lighting and household purposes, but it can also be used for mechanization of agriculture which allows greater productivity at reduced coast (Runsinarith, 2011:5). Roads have such direct benefits to users as travel time saving, safety and reduced vehicle operating costs (OECD, 2012:8). Rural poor people often identify difficulties in accessing markets caused mainly by physical remoteness from centers and high transport costs as a root cause for their inability to improve their living standards (IFAD 2003:16).

Infrastructure as an application of new technology is an autonomous system that generates socio-cultural consequences through its "chain effects". That means infrastructure can bring changes to the local communities and in order to acclimatize themselves to the changes, communities may have new behaviors and customs. And these new activities may arouse communities' different awareness about social phenomena and incubate new ideas.

Finally, these changes could go deep enough to shape local communities' values in certain level (Haiting, 2011:1-2). An essential characteristic of rural families in developing countries is their adaptation ability in that they are able to change their way of living due to the changes on the circumstances (Ellis, 2000). The availability of physical infrastructures affects the relationship between rural and urban dwellers, brings market to rural populations, and facilitates access to education and health facilities (Fouracre, 2001:4). This shows that rural infrastructures also impact social life beyond an effect on the economic life of rural communities.

Previous livelihood study in *Machakel woreda* is inadequate, especially there is no contribution made by researchers on the interrelationship between physical infrastructures and rural livelihoods. This can be partly attributed to recentness of the phenomenon (the expansion of physical infrastructures in to rural areas of *Machakel woreda* is a recent event that begun from 2010/11 onwards as part of GTP of Ethiopia). Among the studies conducted in *Machakel* is by Lijalem (2011), where he studied the challenges and opportunities of irrigated agriculture taking *Gedeb* river catchment as a case. Larson (1997), also undertaken a study on agricultural productivity in the *woreda* and argued that the area is high potential agricultural production area. Both of the studies did not make the study of Social impact of physical infrastructures on rural livelihoods their subject matter. Emphasizing the neglected issues indicated above, the study was conducted on the socio-cultural impacts of physical infrastructures on selected rural villages.

2. Methods

In this study, a qualitative research approach has been used to gather relevant data. The data in the study was obtained from primary sources through the application of primary data collection instruments such as field-observation, in-depth interview and focused group discussion. 12 FGDs, 10 key-informant interviews, and 9 in-depth interviews were carried out during the data collection process.

Field observations were conducted to supplement data obtained by other data collection instruments. The researcher has made observations mainly on physical infrastructures (rural roads, electric installations and water schemes), the way rural people interact among themselves (on occasions such as *gulit* market days, customers in *tella* and *arequi* selling houses, and natural resource conservation activities), home and living conditions of rural people and trade and service provision settings and the villagers social interactional processes.

In-depth interviews with 9 purposively selected household heads and 10 key-informants including *woreda* and *kebelee* officials, community elders, women leaders and religious leaders were conducted. Key informants were purposively selected based on their concern and relevance to the issues. Generally, a total of 139 people from the study area have participated as units of analysis.

In terms of securing informed consent of research participants is among the binding ethical principles guiding the conduct of any research undertaking. To achieve this, the researcher followed the following steps. Firstly, in order to secure permission for undertaking the research, the researcher received letter of cooperation written from Addis Ababa University, Sociology department. Then, a letter of permission from administration of the *machakelworeda* was obtained. Even rural *kebele* chairmen were asked their permission and they have welcomed the study and the researcher.

After making some field visits, the researcher informed research participants about the purpose of the study and showed the letters of cooperation. While introducing himself to the research participants, the researcher made them clear that the study has no any other purpose than for academic end. They were told that the information collected will be used solely for the research purpose and their identity and the information they give will be kept confidential. Finally, this made participants feel secure and willing to participate in the study. The study was conducted at *Amare-yewubesh*, *Gobata-akena* and *Debre-kelemo* rural *kebeles or* villages. These specific *kebeles* or villages do relatively vary each other in their topographic and weather conditions. These three rural *kebeles* were purposively selected on the basis of the availability and expansion of the physical infrastructures of rural roads, water and electricity. Each of these samples *kebeles* are found in relatively varying agro-ecological zones and have relatively different weather conditions.

3. Theoretical Framework

3.1 Rural Physical Infrastructure

In broad terms, rural infrastructure comprises rural roads, rural housing and rural electrification. Rural road connectivity is an extremely important aspect of rural development. In a more modern environment, it may also include information and communication technologies such as fixed line and mobile telephones, and the internet. The term typically refers to the technical structures that support a society, such as roads, water supply, sewers, power grids, telecommunications, and so forth. Viewed functionally, infrastructure facilitate*s* the production of goods and services; for example, roads enable the transport of raw materials to a factory, farm inputs and services to the farmers, and the distribution of finished products to markets. In some contexts, the term may also include basic social services such as schools and hospitals. Infrastructure is the word used to describe large-scale public system like power, water supply, broad, public transportation etc. infrastructure refers to a set of public works

which provide which provide reliable goods and services to facilitate human beings activities for a long period (Haiting, 2011:7).

3.2 The Role of Rural Infrastructure in Poverty Reduction in Villages

Rural infrastructure is important to our development, such as increasing farmers' incomes, developing the rural markets, expanding domestic demands, accelerating the rural well construction and promoting our national economy with a sustained, rapid and healthy way(Fenglin, 2010). Infrastructure also directly contributes to poverty alleviation by providing and supporting the delivery of key services such as access to safe water and basic sanitation, especially in the very early stage of development (Andersen and Shimokawa, 2006:17).

In the past decades, governments have made investments in rural infrastructure to establish basic requirements for achieving agricultural growth. Investments in roads and irrigation have been found to have the major positive effects on agricultural productivity and arefundamental conditions for agricultural growth. Without those preconditions, the success offurtherpolicies leading to agricultural transformation is undermined. This line of thinking isin accordance with the original assumption that there is a particular pace of developmentwhich affords different services at different levels of development. The level of development of a region can then be judged according to the access and quality of services provided (Secondini, 2008:22).

Physical infrastructure in the form of roads, communications and power affects both farm and non-farm sectors in the rural areas. The marketable surplus in agricultural production has to be transported to the procurement centers, or delivered to processing units. Mechanical threshers and tillers require electricity, which is also used by then on-farm sector. Road infrastructure is particularly important for the nonfarm sector, where the distance between location of production and that of the market can be large (Mukherjee, 2002:60). Therefore, provision of physical infrastructure affect both farm and nonfarm sectors. Despite this significance, in most developing countries, rural infrastructure is often neglected. Although more than half of the population resides in the rural areas, infrastructure provisions are concentrated mostly in the cities. Moreover, within the rural areas, agriculture gets most of the share of the infrastructure outlay, such as irrigation and research and development. Other types of infrastructure such as roads, communications, education and health do not get adequate attention. This leads to inefficiencies in the distribution of the restricted amounts of infrastructure investment that are actually implemented in the rural areas (Mukherjee, 2002:60).

Fikru (2008:111) argued that local infrastructure is a major constraint on non-farm business development. If there is no rural infrastructural facility like roads connecting rural *kebeles* with the nearby urban centers, electricity, communication network and so on, it would be difficult to undertake off-farm and even farm activities in a better way.

3.3. The Social Impact of Rural Infrastructural Investment on to the Rural People

Most studies related to the impact of rural infrastructure tend to emphasize the positive role and contributions it has in agricultural growth and development. For instance, according to Li and Liu (2009), complete rural infrastructure accelerates regional economic development. These studies gave little attention to the social and cultural implications and processes associated with the expansion of infrastructures deeper in to rural areas. The Inter-organizational Committee on Guidelines and Principles for Social Assessment (cited in Center for Good Governance, 2006:4), defined social impacts as 'the consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society'. Social impacts are the 'People impacts' of development actions. Social impact assessments focus on the human dimension of environments, and seek to identify the impacts on people who benefits and who loses. Social impacts include changes in people's way of life, their culture, community, political systems, environment, health and wellbeing, their personal and property rights and their fears and aspirations (Center for Good Governance, 2006:4).

According to the Center for Good Governance (2006:5), the term social impact also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society, and there are five types of social impacts falling in to five overlapping categories. These are;

- Lifestyle impacts – on the way people behave and relate to family, friends and cohorts on a day-to-day basis
- Cultural impacts – on shared customs, obligations, values, language, religious belief and other elements which make a social or ethnic group distinct
- Community impacts – on infrastructure, services, voluntary organizations, activity networks and cohesion
- Quality of life impacts – on sense of place, aesthetics and heritage, perception of belonging, security and livability, and aspirations for the future
- Health impacts – on mental, physical and social wellbeing, although these aspects are also the subject of health impact assessment

Social impacts are generally reflected in changes in the ways in which a community is organized. These could include such organizational structures as residence patterns, the ethnic composition of a neighborhood, or the

number and types of community organizations which are active at some given time. Cultural impacts are the most difficult to deal with as they are the hardest to quantify and they are generally elicited through informant interviews, participant-observation in the community, or through research in secondary sources such as local histories (Turnley, 2002:8).

4. Results and Discussion

4.1 Physical Infrastructure and the Health Situation of Rural People in the Villages

This sub-section presents the interrelationship between physical infrastructural expansion and health situation of rural people in the study area depending on FGD, in-depth interview and observations.

Clean drink water is an essential pre-requisite to the survival of creatures including human beings on the earth. It may also on the contrary be source of illness and death if polluted. People in rural areas are vulnerable to water born and communicable diseases due to unavailability of pure water supplies. Now days, pure drink water schemes are being expanded in the rural areas of *Machakel woreda* though people from already built schemes so far for the last four years.

Water schemes vary based on mechanism of operation and depth of the holes down in to the ground. These varieties are; hand-dag wells, shallow wells, deep wells, developed springs, and rope pumps. These water schemes are built by the contribution of government (in terms of budget, expert knowledge and raw material supply) and beneficiaries (labor). UNICEF is the NGO which supports the local people by facilitating the construction of schemes together with the *woreda* administration. In both instances, it is possible to understand the contribution of pure drink water to the good health condition of rural people. For instance, those whose access has stopped because of lack of maintenance of water schemes made it explicit that the absence of pure drink water causes huge burden on rural people including ill-impact on their health. As opposed to this, clean drink water availability in rural areas has such advantages as good personal hygiene, better home sanitation, energy and time saving, avoidance of water born diseases, safe preparation of food and cleanness of home utensils and facilitation of livelihood activities.

Rural people in the study area could keep their personal hygiene better as compared to the previous times before the construction of water schemes. This is because they could easily access pure water from water schemes built within an average distance of one and half kilometer from their homestead. The nearness of water schemes had avoided the need for extra time and energy for fetching water. In addition, water obtained from is purer than water could be obtained from land surface, which can be easily polluted by pollutants such as animals, heavy rain and wind. Therefore, people could wash their clothes and body whenever they get dirty. Not only rural people better keep their personal hygiene, they also improve the way they clean homes, cooking materials and safely prepare food.

Energy and time saving is the other major importance of established water schemes. Women with access to pure water no more travel long distances facing difficult topography to fetch water from rivers and streams, which has killed their energy and time for centuries. Female group discussant made the idea clearer as follows.

> *Earlier, it was very difficult to find clean water from rivers and streams during both summer and winter, because in the winter season these water sources dry and stop giving water; and during summer, rivers and streams are polluted by eroded soil driven by heavy rainfall. Beyond this, rivers and streams are far from residential homes that it was difficult to travel long distance carrying heavy pots full of water. But now, thanks to God we have a water scheme near my homestead.*

Rural people could also avoid diseases caused by polluted water. In rural areas, water pollution is triggered by the absence of toilets. People used to execrate everywhere they want with no regard for the consequences. But now days, farmers are constructing their own toilets by the help of *kebele* health extension workers. Therefore, through clean water use, rural people improve their health status.

A one more function of water schemes identified in the study is the importance it has in carrying out livelihood activities. Those who prepare *arequi* and *tella* for selling purpose greatly benefited from constructed water schemes as they need pure water from a nearby place. Access to pure water is also detrimental to activities such as milk processing and local restaurants.

People die because of inability of getting timely medical support among many other causes of death. Receiving timely medical help in times of emergent ill-ness cases is partly determined by the availability of transportation facilities. These days, rural roads are considerably contributing to the medical service access of rural people in *Machakelworeda.* In such cases as when a woman is about to give birth, physical harm because of conflict, and serious stages of malaria, people can get medical care both in their own localities and in the towns using ambulance facility. It is also possible to use assigned mid-buses to transport the ill to the health station found in Amanuel town. Also for rural health posts to be functional in giving medical aid to the local people, rural electrification is contributing a lot.

The expansion of physical and social infrastructures in rural areas has brought a slight change in attitudes

towards the use of modern medication. Rural people in the study area tended to prefer in the earlier times cultural and religious mechanisms of health treatment over modern ones though this reliance is declining now a days. An explanation of this made by an interviewee is following.

> *Previously, people in my locality prefer religious and cultural healing mechanisms of health illness. They use to believe in'debetera', 'awaqui'or'tenquaye' and 'tsebele' than using hospitals or health stations. The reasons for this preference were attitude, belief in traditional healers, inaccessibility of health centers, and economic factors. But now this phenomenon seems to be changing that people have good attitude towards health centers and modern medication which are accessible, people are having cash money in their pocket so that they can afford the expenses for medical service and the belief in traditional healers is declining. Of course, 'tsebel' is still well taken by people.*

4.2 General Awareness and Consciousness of People in the Villages

Today, the awareness of rural people regarding issues relating to their lives such as natural resource management, STDs, home sanitation, technology, relevance of formal education and so on has improved profoundly. Children are receiving better education, farmers know more about issues which were said to be urban issues before and they are respecting laws as they are aware of it.

Before the expansion of physical infrastructures, high school students from rural families were obliged either to travel on foot for hours to reach to the school or rent a small quarter from house owners in the town where the high school is located. The case is straight forward especially in high school educational carriers because of the existence of a single high school in the *woreda*. The great difficulty for students was the food they use to eat. They used to eat *enjera*get dried by sun light which is uncomfortable for body due to inappropriate preparation.

Now days, transport facilities are available connecting Amanuel town (where the high school is found) and center *gotts.* Students can use this facility to meet their families and receive things they need. Moreover, rural students of any cycle are benefiting from electric light because it enables them to study for longer time during the night. This is crucial because most of the time students from rural families are busy of work in the agricultural field during the day time.

Rural families are using the transport facilities made available by *woreda* administration and learning appropriately without worrying about their food as their families and people from their localities supply them on time. Moreover, electric light availability is benefiting students by enabling them to study for longer time during the night. In the day time, it is very difficult for students in rural areas to study because they use their time more for undertaking agricultural activities. Parents' awareness regarding the importance education is also improving which in turn help students attend their education with good motivation.

4.3 The Impact of Rural Physical Infrastructural Expansion on the Social Interaction Rural People

This section consists of a discussion of the impact of rural physical infrastructure expansion on the general social life of rural people residing in the *woreda*. More specifically, it highlights impact on social institutions and networks, impact on patterns of social behavior, impact on the social relationship of the community and tries to uncover what seems the social relationship among member people of the rural area, and between member people of different localities and urban residents of anywhere.

In this part, the results are analyzed based on data obtained through the utilization of tools of data collection such as field observation, in-depth interviews and focus group discussions. The impact of rural physical infrastructural expansion on social life of rural people of the area is discussed by taking both the negative and positive impacts in to consideration with no disaggregation.

4.3.1 Impact on Local Social Institutions and Social Networks

It was found in the study that the expansion of rural roads and the accompanying expansion of rural electrification and water schemes had a tremendous impact on the social institution (especially that of marriage and the family), and social networks such as *mahiber*, *iddir* and *iqub.*

The establishment of rural physical infrastructures only is some center *gotts* and/or sub - *kebeles* of many rural *kebeles* has created an internal movement of people such as divorced ones, those who want to diversity their livelihood using infrastructures and others into center *kebele*areas on permanent and temporary basis. Most of the time, internal displacements are starting from very remote areas. For instance the majority of *tela*, *arequi*, and tea sellers are divorces who did not want to sustain their family (marital relationship) with their husband. These women list out several reasons for this which includes the possibility of leading their own life (even together with their children) by themselves with no one's help as they could earn income from livelihood activities they established in localities where infrastructures are available. This has been clarified by 36years old who stated as;

> *Earlier, the only fate for a divorced female/woman was to live together with her families (parents) if she has, or live alone by building herown shelter, usually a hut made of wood, grass and mud. Such women did not have opportunities to engage in livelihood activities*

unlike the present situation. But these times, thanks to the government, which is ensuring our rights and expanding infrastructures, divorcees are getting legal backing and leading their life independently working their own livelihood activities. We could for example, start our own livelihood activities by coming here. Some of us rent houses while others build their own homes using the property they have shared from their husbands.

The availability of physical infrastructures as new phenomena in rural localities had created a confidence on the part of women as they realized the possibility of leading life by themselves in addition to legal protections by the law. Family breakdown such as divorce is not seen as a difficult and impossible way of solving crisis and conflicts within the family institution. Divorce is no more being seen as socially shameful act; it is becoming easier overtime. This situation in turn continues to create single parent families which disenable children to get family love, protection and sense of belongingness that could be obtained from an intact family.

From focus group discussions, it is apparent that as people displace from relatively remote localities (areas where infrastructures are unavailable) to center areas or *gotts* (areas where infrastructures are already made available), their membership in social networks such as *mahiber* and *iddir* faces a problem. This is due to physical dislocation of displaced people with their own intention from the rest of people they have been a part. It is difficult to meet with *mahiber* and *iddir* members in cases meeting are mandatory by travelling distances. Moreover, establishing social relationship and membership in *mahiber* and *iddir* in host localities takes time until getting adaptation to the situations and asnew membership has its own procedures. This gap (absence of membership neither with the previous localities nor in the new ones for a period of time) is dangerous for the displacing people as they may encounter problems such as death of a family member, which highly requires help and support through the networks of *iddir* and *mahiber*.

4.3.2 Impact on Social Relationship among Rural People

The expansion of physical rural infrastructures in the rural localities of *Machakel woreda* has been found to have a lot to do with social relationship among members of same rural *kebeles*, among members of different rural *kebele s*and among different rural *kebels*. This phenomenon could be viewed in terms of two dimensions; the first is the situation that happened in relation to the social relationship of rural people on varying scales during the process of constricting and/or expanding infrastructures. The other is the one that ruralpeople had experienced changes in their social relationship after the expansion of infrastructures in their localities.

As it has been described in the preceding sub-sections, the impact of rural physical infrastructural expansion on the social life of rural people in the area is viewedin termsof both of its positive and negative consequences on the social life of the people. Therefore, both positive and negative impacts are discussed altogether with no disaggregation. The following discussion highlights the impact of physical rural infrastructure on social relationship among rural people during the process of expansion.

During the construction of infrastructures, there happened social phenomena such as establishments of new social ties and intensification of former ones, weakening and ending up of previoussocialties, and conflicts among rural people. An informant in an in-depth interview, who is a *kebele* chairman with the age of 42, explained the phenomenon as follows.

When infrastructures are established, many things happen in the social life of kebele members. Some people for instance become socially related who were not known to each other deeply. On the other hand, some other members may enter into dissolution of their social ties and conflict. These things might be caused by different reasons. For example, during the construction of water schemes, rural people contribute 20% of the total expenses in terms of labor. When people participate in such activities as digging holes, transporting construction materials like stone and sand, they could establish new social ties or strengthen it as the work is done in groups. Conflicts betweenassigned people who are responsible for following up the construction and local dwellers could also arise when ordinary members of the locality refuse to participate because of their own reasons. Not only under such cases social ties or conflict between members of the locality could arise in the process of expending electric power line. For example, some people claimed the setting up of electric power transformers to be held at their homestead while expert' decision was not that. Food for the power line workers was provided by the local people in groupturn by turn. In doing such activities, people relate socially to each other. In addition, some farmers refused to give their farmland for roads construction as they would have lost their plots, while others want the roads to pass through their farm land calculating future benefits that they may obtain such as building and renting out houses alongside the roads.

As the above key informant data indicates, the construction of physical infrastructures would have caused decline or intensifications in social ties among individuals and groups. This is mainly because the expansion process required the participation and resources of local people. Rural people might quarrel each other when their benefit especially land is taken over for other purpose as they may become socially close when their benefits are secured. Occasions such as celebration of the accomplishment of constructions, feeding in group of construction

workers and, the likes would have strengthen or disrupt social ties. Therefore, such situation would finally lead to establishment of new strengthening of previous social ties, weakening and ceasing of previous social contacts or the creation of conflict among local people.

The expansion of physical infrastructures in the rural areas of *Machakel woreda* has positively impacted the social relationship of people among each other once after the accomplishment of the construction processes as it did during the construction period. People of different localities could strengthen their social ties as they use physical infrastructures in common. From focus group discussions, I understood that when people use infrastructures like water schemes in common, they could also share their social issues which intensify the bond among them.

On the contrary, the social ties and contact, among people of localities were found to have been negatively affected are result of the expansion of infrastructures. Actually it is not rural infrastructural expansion creating problems by itself; rather it is the unbalanced availability of such infrastructures across *gotts* with increasing demands on the behalf of local people. Focus group discussion results for instance, indicated that the shortage of electric meters (a device measuring the amount of electric power used in a certain place) is endangering the neighborhood tiesin the localities. Those who own the device engage in conflict with those without the device regarding payments and uses of service (electric power).

When water schemes fail to provide water to users in a given locality or *gott*, members of the *got* go to nearby *gotts* so as to fetch water, which as a result creates pressure on the host *gott* dwellers. As a result, people enter in to unnecessary disagreements, which might have affected their social contacts.

The other problem which is affecting rural people socially is unpredicted gaps or stoppages in electric light services. When electric light service ceases due to problems in the power lines, owners of grain mills took an informal responsibility of recovering the problems so as not to lose their own benefits which could be obtained by electric light availability. But such problems had been found to be frequent when people consciously cut down power lines expecting payments for maintenance again from owners of gain mils. An informant who is a vice *woreda*administrator and took the role of overseeing rural electrification with the age of 46 elaborated the phenomenon as follows.

> *There occur repeated conscious or unconscious breakages of power lines by individuals. Those who break the power lines are suspected to be local electric experts, who might have been knowingly cutting the power lines to benefit through maintenance payments, usually from grain mill owners. The problem becomes even worse when owners of grain mills take a prime responsibility of covering costs of maintenance by their own will. But when similar problems occur in other times, other people in the localities refused to contribute to maintenance costs as they know that grain mill owners would take the responsibility.*

Such problems of frequent breakups in power lines and refusal of non-grain mill owner people might have affected the social interactionbetween grain mill owners and the rest majority which could create social differences beyond the already existent economic disparity.

4.3.3 Impact on the Social Relationship between Rural People and Urban Residents

Among the three newly expanded physical rural infrastructures (rural electrification, roads and water provision), the impact of rural roads, is highly magnified in terms of affecting the social interactions and ties between rural people of *machakelworeda* and urban people of nearby towns of Amanuel, Dembecha, Rebu-gebeya and Debre-ellias. The construction of roads and resulting interconnection between rural *kebeles* and the aforementioned *woreda* towns is narrowing both the social and physical (topographical) disparity between people of rural and urban areas. In terms of topographic disparity, rural roads reduced the amount of time that people may need to travel on foot as it is made possible to use transplant facilities. On the other hand, the impact of rural roads on the social life of rural people partly lies on the process of increasing connection and declining social disparity between people, and here lies the focus of this sub-section, which is dealt with in the following paragraphs.

The connection of rural *kebeles* to urban areas (such as the *woreda* towns) resulted in the intensification of social interaction between people of the two areas. Rural people are becoming aware of urban mode of life helped by infrastructural development in the area. They use transport facilities, drink pure water, accessnational and global in formationsand begun to appreciate urban way of life. Urbandwellers are also participating in rural social issues and organizations better than ever before through involvement in *mahiber*and other related ceremonies such as yearly spiritual ceremonies known as *negis* or amet*beales*. The availability of road transport eases travel between rural *kebeles* and towns. As focus group discussions showed, strengthening social interactions are also facilitating economic relationships between people from both areas. For example, traders in Amanuel town who has social bond in rural *kebeles* buy different kinds of commodities from rural people. Simply those who are socially bonded are also economically interdependent as they would have become customers.

5. Conclusions

Rural physical infrastructural expansion has also a contributed in terms of changing the life of the people. Poverty

and backwardness were reduced through:1) increased number of income sources and improving household income, 2) improving health status, and 3) raising the general awareness and educational profile of rural people. The study indicates that people are transforming in to a better way of life assisted by expanding infrastructure.

The expansion of physical infrastructures impacted the social life of rural people in the study area both negatively and positively. On a positive dimension, rural people could strengthen and establish social ties among themselves during and after the establishment of infrastructures.

On the negative side, the expansion of unevenly distributed infrastructure causes problems on social institutions and networks. It has caused and inter-rural and intra-rural *kebele* displacement of people including divorced people. Absence and lack of maintenance of physical infrastructures is creating social disputes among individuals and groups.

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