



**The Socioeconomic Effects of Large-Scale Gold Mining on Local Community in Ethiopia:
Empirical Evidence from Lega Dambi Gold Mining Company**

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ABSTRACT

This research describes the socioeconomic effects of a large scale gold mining on the local community in the Lega Dambi gold mining, Ethiopia. The study employed both qualitative and quantitative methods. A sample of 377 participants was selected from the local communities through systematic random sampling technique. Further, semi-structured interview was used to collect data from the investment office, and land administration office of Guji Zone; mining and energy office, social and labor affairs, land administration office, environmental protection, forest and climate change authority, and investment office of Odo Shakiso Woreda; and local elders ('Abbaa Gadaa' and religious leaders). The participants were selected purposively to elicit their views on the effects of gold mining on the local community. Also, two focus group discussions which consist of eight participants were held with landholders and artisans. Furthermore, a descriptive case study research design was employed. The finding of this research reveals that Lega Dambi large scale gold mining, albeit it generates foreign currency at the national level, has negative effects on the local community. Those effects are a miscarriage in pregnant women and animals, reduction quality of livelihood of landholders and artisans, eviction of landholders from their lands without any compensation, reduction of the current income of the landholders, the death of the local community and their animals, and the loose relationship between the local community and the company. The researcher concluded that Lega Dambi large scale gold mining withered the welfares and livelihoods of the local community by releasing hazardous chemicals—Cyanide and Mercury—into the surrounding environment which was responsible for the current termination of the company. The researcher recommended that formal agreements such as community development agreement, social license to operate, and regional corporate social responsibility should be designed and incorporated into the legal framework of the country and implemented practically. It is also recommended that compensation should be paid as remedial actions for landholders who were expropriated from their lands without compensation and victims who were affected by released chemicals from the Company.

Keywords: Effect; Landholder; Lega Dambi; Large Scale Gold Mining; Local Community

1. Introduction

Mining makes a significant contribution to national economic development (Ericsson and Lof, 2019). In addition, mining supplies inputs for other industrial sectors that are vital for sustaining population well-being and the functioning of global economies (Mancini and Sala, 2018; World Gold Council, 2015). Besides, mining plays a pivotal role in the economy and has been central to the socioeconomic development strategies (Hailemariam *et al.*, 2015; Mining Journal-Ethiopia, 2011; Ministry of Mining and Energy, 2009; Nguyen *et al.*, 2018; World Gold Council, 2015; World Bank, 2016). Mining companies have positive influences on community development as they address community conflict (Adonteng-Kissi, O. and Adonteng-Kissi, B., 2017). Mining can create job opportunities, contribute to economic development, afford social services, and generate taxes and royalties (Hailemariam *et al.*, 2015; Ministry of Mining and Energy, 2009; Nguyen *et al.*, 2018).

Specifically, gold mining is a major economic driver for many countries across the world (World Gold Council, 2019). A formal large scale gold mining creates job opportunities for many people in the top 15 producing countries. And gold mining is a significant source of exports for some countries like Tanzanian, Ghana, and Papua New Guinea in 2012 (World Gold Council, 2013), and thus, gold is an investment asset (Ferland *et al.*, 2015). In contrast, some mining industries have positive impacts on social, economic, and environmental whereas most of them have negative impacts (Meisanti *et al.*, 2012). The entry of mining companies into communities caused the displacement of the local community from their lands, loss of indigenous knowledge and societal cohesion, loss of self-confidence, and capacity to adapt to the environment and survive (Tenkorang and Osei-Kufuor, 2013). Additionally, mining companies fail to inform prior consent and authentic participation of the local community (Hamann, 2003), and did not live up to their responsibility to support local development (Garvin, *et al.*, 2009).

On the other hands, since the gold mining contributes to the whole economy, companies have to implement corporate social responsibility because it is a manifestation of a move toward greater sustainability in the mining industry (Jenkins and Obara, 2006; Kapelus, 2002; Kemp *et al.*, 2011; Vintro and Comajuncosa, 2010). Though mining is anticipated to promote economic growth, it brings little improvements in the local community's welfare in African countries (Chuhan-Pole *et al.*, 2017). Also, it increases social and economic inequality among the community in Africa (Addison *et al.*, 2017).

Besides, Kitula (2006) asserts that mining practices have already caused serious social and environmental impacts in some mining areas in Tanzania. To overcome such challenges, organizations need to employ social license to operate since it maintains a mutual benefit between the miners and the local community (Melanie *et al.*, 2014). In Africa, although large scale gold mining is substantially contributing to countries' Growth Domestic Product (GDP) and export revenue, its impact on socioeconomics and employments of the local community is minimum (Andersson *et al.*, 2015). To reduce such challenges, several companies attempt to integrate professional development opportunities into the process, at least informally, although there is an emphasis on compliance (Kemp *et al.*, 2011).

As one of the African countries, Ethiopia has vast ambitions for the mining sector to increase its contribution to GDP from 1.5% to 10% by 2025 (Ministry of Mining and Energy, 2009; World Bank, 2016). During the Derg regime, the minerals of Ethiopia were not available to the private sector. Thus, only government institutions had the right to explore and develop the country's mineral wealth (Hagos *et al.*, 2016; Ministry of Mining and Energy, 2009). Following the coming of the Ethiopian People Revolutionary Democratic Front (EPRDF) into power in 1991, privatization of mining sectors was launched (Hagos *et al.*, 2016; Mining Journal-Ethiopia, 2011). Consequently, the government promulgated different laws such as new mining proclamation No. 52/1993, Mining Regulations No. 182/1994, and Mining Income Tax Proclamations No. 53/1993 to encourage the participation of private capital in mineral prospecting, exploration, and development activity (Ibid). In Ethiopia, a large-scale primary gold mine has been found at Lega Dambi which was privatized in early 1997/8 with an average production of 3.6t/y gold. Ethiopia has one existing privately-owned mine, Mohammed International Development and Research Organization Company (MIDROC) Gold Mine plc's Lega Dambi operation, which is the only larger gold mining in the country. MIDROC Lega Dambi Gold Mine plc is located in the Oromia regional state, Guji Zone, Odo Shakiso *Woreda*, about 470km far away from Addis Ababa, the capital city of Ethiopia to South direction (Mining Journal-Ethiopia, 2011).

Impacts of mining have become an issue of public interest in the world because of its impact on the local communities and environments (Meisanti *et al.*, 2012). Moreover, Nguyen *et al.* (2018) explain that the relations between mining companies and local communities are complicated, nuanced, and context-specific. In contrast, Hailemariam *et al.* (2015) argue that scale gold mining has more positive effects on the national economy albeit it has both positive and negative effects on miners and the local community. Although the supra mentioned scholars contributed their parts, they did not explain the effects of a large scale gold mining on the local community. Also, Cherinet (2018) researched entitled

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“gold mining and its effects on the natural and socioeconomic environment: The case of Odo Shakiso district, Oromia region, Ethiopia” focuses on environmental issues by assessing Ethiopian Mining Policy. The author attempted to describe the effects of traditional gold mining and artisanal mining on the natural and social environment by assessing mining policy implementation. But the author did not address the socioeconomic effects of a large scale gold mining on the local communities. As a result, this research is designed to address this gap—whether large scale gold mining has positive or negative effects on the socioeconomic conditions of the local community by taking Lega Dambi gold mining as a case study.

2. Methodology of the Study

To conduct this research, the researcher used a mixed-method—both qualitative and quantitative methods. A descriptive case study research design was applied for a detailed description of the company’s effects in the local community. The qualitative method was used to collect data through semi-structured interviews from the investment office, and land administration office of Guji *Zone*, mining and energy office, social and labor affairs, land administration office, environmental protection, forest and climate change authority, and investment office of Odo Shakiso *Woreda*; and local elders (*‘Abbaa Gadaa’* and religious leaders) who were selected purposively to elicit their views on the effect of Lega Dambi large scale gold mining on the socioeconomic conditions of the local community.

In addition, a quantitative method was also used to describe the income of landholders (both before and after the operation of the company) by using the independent t-test, and the adequacy of paid compensation of landholders by using the simple statistical method—simple statistical frequency distribution.

The target population of this study is the local communities that live surround the company; particularly, landholders who were expropriated from their lands and victims due to the coming of large scale gold mining—Lega Dambi gold mining, MIDROC Private Limited Company (PLC) are the target population of this research. The *Woreda* reported that the company affected four Kebeles of the *Woreda*—*Dhiibbaa Battee* (Diba Bate), *Reejjii* (Reji), *Saamwana* (Sawana), and *Diidola* (Didola) kebeles. Also, the *Woreda* reported that 20,030 populations live to surround the company in the four *Kebeles* of the *woreda*. The sample size of this population was determined through by Krejcie, and Morgan, (1970) sampling technique i.e.,

$$S = \frac{(X)^2 NP (1-P)}{(d)^2 x (N-1) + (X)^2 P (1-P)}$$

Where:

S = Required sample size

$X^2 = Z \text{ value}$ (1.96 for 95% confidence level. $X^2=1.96^2=3.841$)

N = Population size

P = Population proportion (expressed as decimal) (assumed to be 0.5 (50%))

d^2 = Degree of accuracy (5%), expressed as a proportion (.05); It is margin of error.

The formula is selected because of its appropriateness to social sciences research having a finite population. Accordingly, 377 participants were selected with the sampling error of 5% and 95% confidence as indicated below.

$$S = \frac{(1.96)^2 \times 20030 \times 0.5 (1-0.5)}{(0.05)^2 \times (20030-1) + (1.96)^2 \times 0.5 (1-0.5)} = 377$$

The sample of the participants was drawn using a systematic random sample technique because it allows the researcher to the degree of the system to determine the sample, and it is easy to construct, compute, and understand. Furthermore, 20 participants were selected from the investment office, and land administration office of Guji *Zone*, mining and energy office, social and labor affairs, land administration office, environmental protection, forest and climate change authority, and investment office of Odo Shakiso *Woreda* in which two participants were drawn from each office. Also, three participants from local elders (*Abbaa Gadaa*) and three participants from religious leaders were selected to elucidate their views. Additionally, two focus group discussions which consist of eight participants were held with landholders and artisans. Generally, the sample size of this research is 413 participants. Finally, the collected data were analyzed by the multi-stage method, qualitative and quantitative, data analysis. The qualitative data were analyzed by the content and thematic analyzing method whereas the quantitative data were analyzed by Statistical Package for Social Science (SPSS) version 20— independent t-test and simple frequency distribution. Then, information obtained from the quantitative method was cross-checked with information obtained through qualitative methods to triangulate the data.

3. Findings and Discussion

3.1. Demographic Characteristics of Participants

The participants of this research are local communities who live surround the MIDROC gold mining company. The participants were selected through a systematic sample technique. As summarized in Table 1, of total sampled participants, 50.40% were males and 49.60% were females, and thus, an

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attempt made to balance the gender. Also, the majority of participants, 53.05%, could write and read; 38.46% were grade ten completed; 5.01% were diploma holders and 0.51% was degree holders so that they could answer the questions easily. Hence, they knew what they answer. Concerning the participants' marital status, 25.20%, 72.94%, and 1.80% were single, married, and divorced respectively. This indicates that the majority of the participants led families. Thus both the benefits and costs which can affect one person, especially, husband, can affect the whole family since the lives of all members of the family depend on the leader of the family, usually the husband.

Besides, the work status of the participants showed that 47.75% were farmers, 24.67% were merchants, 10.20% were artisans and 16.33% were others—charcoal dealers, government employees, construction workers, and pastoralists. As the factory, Lega Dambi large scale gold mining, expanded its production, it had negative effects on the livelihood of those farmers and pastoralists because it could control their lands through the expansion of gold exploration. Artisanal was the common practice in the study area so that local communities were engaged in the traditional mining activities. This also attracted other people from different areas. The ages of participants were dominated by the range of 29-39 years old, which means 34.48% followed by age between 18-28 years old, which means 28.48%. This shows that most of them lead their families. Hence, they had at least their work to feed their families.

3.2. Positive Effects of Large Scale Gold Mining on Socioeconomics of Local Community

Lega Dambi gold mining has both positive and negative effects on the socioeconomic conditions of the local communities albeit the company has more negative effects than positive effects. Those effects relate to the provisions of infrastructures like roads, water, school and social aspect—job opportunity.

Roads: Lega Dambi large scale gold mining constructed more than 10kms road which connects Adola town with Shakiso town. The interview results with Odo Shakiso *Woreda* Investment Office and Land Administration Office administrators showed that Lega Dambi gold mining company played a lion share when the road was connected from Adola and Shakiso towns. As a result, the travel time is reduced to less than 15 minutes to travel from Shakiso Town to Adola Town. Besides, the company constructed internal roads of the Shakiso Town although the constructed roads are not sufficient compared with the income of the company.

Schools: MIDROC group large scale gold mining PLC constructed two schools in two kebeles. Hence, many children accessed to education. The interview result with the Guji *zone* investment office

and land administration office administrators disclosed that two schools in Diba Bate and Reji Kebeles were constructed by MIDROC gold mining plc. Further, the company contributed 12,000,000 Ethiopia Birr (ETB) to construct Technical and Vocational Education and Training (TVET) which were divided for 12 *woredas* in the Guji Zone. But the local communities and administrators of government offices both at *Woreda* and *Zonal* levels claimed that the contribution made by the company was low when compared with the income of the company that generated from the gold because the company produced more than 4500kgs gold per year.

Water pipe/water bed: Interview results with both Investment Office and Mining and Energy Office administrators of Shakiso *Woreda* revealed that MIDROC gold mining plc constructed water bed for Shakiso *Woreda* dwellers in many Kebeles. This is also one of the positive effects of a large scale gold mining on the local community via community development program. However, the urban dwellers blamed that the company constructed only water beds without supplying water sources. Consequently, the water bed remained as symbol since there is shortage of water in the Shakiso Town. To sum up, the finding of this research exhibited that the water bed was constructed in the town albeit the company located in the rural areas.

Job opportunity: like other companies, which opened job opportunities for local laborers, MIDROC gold mining plc also created job opportunities for local laborers. The Odo Shakiso *Woreda* social and labor affairs administrator argued that “The company created job opportunities for local laborers initially, especially, at guard positions. But gradually, the local guards were replaced by federal police and national armies of unknown reasons”. Also, the *Woreda* investment office administrator explained that even though the company created job opportunities for a few local labors, many local labors could not get a job in the company due to specialization of the field. The company posted vacancy in Addis Ababa, about 470kms away from the site of the company. The researcher inferred that the number of local laborers is minimum in the company due to the company’s bureaucracy and field of specialization.

3.3. *Negative Effects of Large Scale Gold Mining on Socioeconomics of Local Community Livelihood*

Livelihood can be defined in different ways. But for this research, it is defined as any job that the local community works to generate income as a means of living. Lega Dambi large scale gold mining company has negatively affected the livelihoods of the local community through massive expansion into lands of the local community. The landholders claimed that they neither got a job in the company

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nor paid compensation though they were evicted from their lands. Consequently, most landholders and youths became jobless; some of them migrated to Shakiso Town and work casual works to feed themselves. Others are still worrying about their daily food. The administrator of the mining and energy office of Shakiso *Woreda* presented that before the plant expanded to their lands, they traditionally had dug the ground and explored gold from their lands and sold it and fed their children and parents.

The landholder focus group discussants explained that “Lega Dambi gold mining devastated our livelihood”. The participants further argued that:

Before the coming of Lega Dambi gold mining, we used to plow our lands. We further rear cattle like cows, bulls, goats, sheep, and donkeys since there were large lands for farm and grass. But currently, the factory is expanding its territory rapidly to explore golds. The expansion of territory is beyond the former borders of the company. We repeatedly report to the concerned body about the illegal expansion of the company. But no one could give a response for us since the accountability of the factory is directly to the federal government. What surprising is that no compensation is paid for us albeit the factory has expanded to our lands. Currently, these all are affecting our livelihood **(Landholder Focus Group Discussants).**

The *Woreda* Investment Office, Mining and Energy Office, Land Administration Office, and Environment, Weather Condition and Forest Authority Office administrators have assured what the landholders complained. The administrators explained that recently, the factory has rapidly expanded to the land of landholders. The administrators also suggested that the expansion of the factory was beyond our capacity. The finding of this research disclosed that albeit landholders brought their complaint to their office many times, they could not solve the problem since the factory had no relation with the *woreda* offices: investment office, mining and energy office, land administration office, and **environmental protection, forest, and climate change authority** have no power to control the company, also, the company has no contact with *Guji Zone* and Oromia Regional State.

By the same vein, Lega Dambi gold mining affected the livelihood of local artisans who sustained their lives by exploring the gold around the company. While the company was expanding its territory to explore further gold, the artisans were obliged to leave the areas where they used to explore the gold since the power of the factory is superior to the power of artisans. The artisans had to feed their families, educate their children, generate incomes and save the money from the income which was generated from the gold exploration by their hands. WHO (2016) assured that millions of people in

the developing world depend on artisanal and small-scale gold mining for their livelihoods. In addition, the focus group discussants from the artisans explained that:

We are artisans there for a long period. The place is rich in the gold deposit. We had to generate much money from gold. Besides, that money was enough income to manage our families. We had to buy what we eat, what we wear, pay for schools to educate our children, and save for an emergency time from the money we generated from the gold. But currently, since the place where we used to explore gold and sustain our livelihood has been taken by MIDROC Company, we could not sustain our lives. Most of our students dropped their education and became shoeshine boys in Shakiso Town to feed themselves. We also became jobless.

From this data, the researcher inferred that the current livelihood of the local community is more declined in quality than former livelihood because the main income of their former livelihood, lands, was taken by Lega Dambi gold mining Company and 250 landholders were evicted from their lands without compensation.

Income

Before the Lega Dambi gold mining company had evicted the landholders, they had diversified incomes. Most of the income was in kind, usually lands and cattle. The finding of this research indicated that the current income of the landholders is varied. Some of the current income of landholders is from trade whereas most of the landholders lacked constant income since they became jobless. Those landholders were evicted from their lands and sold their cattle, sheep, goats, horses, and donkeys. Finally, they immigrated to Shakiso Town. Before they had removed from their lands, they sold the calves of their animals and generated incomes. Likewise, most of their income was in kinds. Hence, they did not worry about their income since they could sell if they needed the cash. But currently, they have no constant income.

By the same token, the quantitative results, as indicated in Tables 2 and 3, shows that the former income of landholders was better than the current one. This indicates that the quantitative finding is consistent with qualitative findings—both findings stated that the former income of landholders was better than the current income.

As indicated in Table 2, the former income of landholders score is better ($M=4775.15$, $S=1234.75$) than the current income of landholders ($M=2269.79$, $S=1278.80$) on a measure of the betterment of income. Moreover, the independent-sample t-test, as indicated in Table 3, revealed that the observed differences between the former income and current income of landholders were found to be statistically significant, $t(390)=19.711$, $MD= 2505.36$ $p<.05$.

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Generally, the finding of this research exhibited that landholders, whose lands were taken by the company, used to plow, rear animals on it, and even mine golds when they like and generate income from them. But currently, those landholders have become landless and hence, their income is not multidirectional as former ones because their lands were taken without any compensation.

Exclusion of Local Labors

According to the data from the company, more than 1,500 laborers worked in the company. But the number of local labors was less. The focus group discussants of the local community mentioned that “Though there are competent and the educated local communities, the company is unwilling to hire local community”. The data collected from the Investment Office, and Labor and Social Affairs of the *Woreda* also showed that the vacancy for labor recruitment was never posted in the area where the factory is situated albeit the company is found in Oromia regional state, Guji *zone*, Odo Shakiso *Woreda*. The vacancies were posted in Addis Ababa. The reason behind this is to exclude local laborers from the competition because the local laborers cannot access the notice which is posted in Addis Ababa. By the same token, the data collected from local labors, local community and land administration and investment offices of the Guji *Zone* showed that the few local labors who got a chance to work in Lega Dambi large scale gold mining denied the incentives of houses and insurance that in turn discourages other local laborers. The study also indicated that there is a wage difference between local labors and other labors who were working in the company nevertheless they have the same qualification and experience. This sabotaged the rights of equal pay for equal works for those laborers who have the same qualifications, rank, and experiences. The local community focus group discussants argued that the local laborers were forced to leave the work when they asked the manager of the company for their rights. Accordingly, more than 30 local laborers were fired out from the company when they asked for their rights.

Generally, the finding of this research revealed that there was no transparency in the company on labor recruitment and wage payment. This upset local laborers and it was responsible for the local community protest in the company which caused the termination of the company by now. For understanding the issues of local labor, it is critical to engage with local knowledge on a case by case basis (Fisher, *et al.*, 2019).

Rights to Land of Landholders

In Ethiopia, the land is a common property of the Nations, Nationalities, and Peoples of Ethiopia and shall not be subject to sale or other means of exchange (Federal Democratic Republic of Ethiopia

(FDRE) Constitution, 1995). Besides, FDRE constitution article 40(4), the Federal Rural Land Administration and Land Use Proclamation No. 456/2005 article 5(1a), and the Oromia Regional State Land Use and Administration, the amended Proclamation No. 130/2007 article 5 (1) state that citizens have the right to obtain land without payment and the protection against eviction from their possession. Abdisa (2018) argues that albeit the supra mentioned proclamations, both the federal and the Oromia Regional State, give rights for landholders to the produced on it, and transfer it to the coming generation theoretically. However, they didn't protect the rights of landholders practically because many landholders are expropriated from their lands by the name of investment and public use without any compensation.

The entire local community focus group discussants explained:

Albeit we had a land ownership certificate for the land we inherited from our ancestors, we lost the right to use our lands despite being granted in the constitution because the Lega Dambi gold mining expanded to our lands and evicted us from our lands. Following this, we strongly protested and tried to fight for our rights, which caused the termination of the company at the end (Landholder focus group discussants).

The interview with Odo Shakiso *Woreda* land administrator showed that the Lega Dambi gold mining evicted more than 250 landholders from their lands without any compensation. Further, the Guji *Zone* Investment Office administrator explained that “Since the company is directly controlled by the federal government, we cannot interfere and take necessary measurement to answer complain of the local community”. Generally, though the land is given to landholders freely, it is not up to end because many landholders are expropriated from their lands by the name of investment without sufficient preparation to resettlement. This shows that there is a great gap between the theoretical and practical application of the constitution and many proclamations on landholders' rights.

Welfare and Health Related Problems of the Local Community

Though different companies follow Corporate Social Responsibility (CSR) principles and dehydrate the used chemicals, the Lega Dambi gold mining company negatively affected the health conditions of local communities and their cattle, goats, and donkey. The local community focus group discussion and interviews with local elders, religious leaders, and government officials of the *Woreda* witnessed that the main causes of the problems were that the company used dangerous chemicals like Hydrogen Cyanide and Mercury to purify the gold from the soil. The government officials explained that “Those chemicals were released to the environment and water—*Mormoraa* River— and streams nearby the company”. Even though the company denied the use of a toxic substance which can affect the health

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condition of human beings and animals, the notice (as pointed in figure 1) posted nearby one of the streams around that area could justify the release of chemicals into the water.

The collected data from the study area showed that as a result of the released toxic chemical from the company, more than 30 children, who live around the company, are disabled and injured. According to the evidences recorded in health station and hospital in the study area, the kinds of injuries the local community faced are: disabled, legs and hands injury, deafness, blindness, weak spinal cord, diabetes, blood pleasure, and heart disease (shown in figure 2). The *Woreda* administrator re-marked that “Four Kebeles, namely: Diba Batte, Reji, Didola, and Sawana were highly affected by this problem because they are the nearest to the company”. The health station and the hospital reported that about 159 women and 500 cattle were forced to unexpected miscarriage. The WHO (2016) realizes that mercury is a serious threat to the health of miners, the surrounding communities and, in particular, children and pregnant women.

By the same vein, the *woreda* presented that about 600 cattle, 3 donkeys, and 12 goats of 200 households died by drinking poisoned water, which released from the company. The estimated value is 6,045,000 ETB, and it resulted in economic crisis. Additionally, cattle, goats, and donkeys born unrelated gene off-springs. Kitula (2006) found that Cyanide and Mercury leakage or spillage, and improper disposal of mine wastes, can be deadly to humans and can poison groundwater, farming land and the resources in water bodies. Besides, the World Bank (2016) asserts that Cyanide is used in gold leaching processes in Ethiopian mines. Likewise, the finding of this research exhibited that the Cyanide and Mercury outflow which were used by Lega Dambi large scale gold mining company and released to water and environment were affecting the livelihood, and health of local communities, and their cattle, sheep, and goats.

Local Community Protests

Local community protest is the reaction of the local community to the MIDROC gold mining company to show their grievance on the company. It can be from peaceful protest up to strikes. The local community was reacting to the owner of the Lega Dambi gold mining company, MIDROC gold mining PLC, (as shown in figure 3) which was responsible for the termination of the company at the end. According to the collected data from the study area, the main causes of social unrest were two sources—the government side and the company side. The interview with government officials of the *Woreda* showed that the sources of social unrest on the side of the government are the absence of clear agreement, clear rules and regulations about the rights of the local community and CSR of the factory, the federal government didn't decentralize the clear agreement it entered with MIDROC to region,

zone, and *woreda* when it transferred the company to MIDROC, both the federal and regional governments could not compensate the local communities who were affected by the company, and violation of Environmental Protection Proclamation No. 176/2005.

On the other hands, sources of the local community protest from the company side are un-construction of infrastructures like road, hospital, and electricity for the local community. Also, holding large lands of the company without investing on it, and absence of transparency in the company intensified the protest. Besides, royalty and land taxes are not paid properly since the work of the company is secret. And there is no clear border demarcation of the company from local communities' lands. Generally, exclusion of local labors from job opportunity, jobless of youths, eviction of more than 250 households without compensation, creation of landslide, release of toxic water to *Mormoraa* River and small streams, the death of many people and animals of the local community; and a weak relationship between the local communities and the company caused of the protest.

From legal perspectives, the company violated the FDRE constitution article 44 (2)—all people who have been displaced or whose livelihoods have been adversely affected as a result of State programs have the right to commensurate monetary or alternative means of compensation. Besides, it violates FDRE constitution article 92(1)—the government shall endeavor to ensure that all Ethiopians live in a clean and healthy environment. Here, the government failed to put the written laws into practice albeit the life of the local community is affected by the dust and waste products released from the Lega Dambi gold mining company to the environment. Lastly, the local community protests caused the termination of the company and hence, now, the company is not functional.

Hentschel *et al.* (2003) present that artisanal and small scale gold activities are featured by unstable communities that are prone to conflict. But this research found that large scale gold mining activities lead local communities to conflict since its administration is far away from the local communities; and due to the weak relationship between the company and the local community.

Methods of Compensation Payment

The term compensation can be defined from different point of views. Some dictionaries such as Encarta states that compensation is an amount of money or something else given to pay for the loss, damage, or work is done. But for this research, the researcher defined compensation as an amount of money that is paid for the landholders to use the lands of landholders. And compensation is an amount of money that is paid as remedial actions for the local community who were affected by Lega Dambi gold mining company because of releasing poisoned chemicals into the surrounding areas. In this

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research, the researcher attempted to discuss two types of compensation—compensation for landholders who were evicted from the lands, and compensation for the victims—the local community who were negatively affected by the company.

a. Compensation for Landholders

The interview of local elders disclosed that until the company was privatized in 1997, Lega Dambi gold mining operated in the land area in which the government left it as gold mining. But following the privatization of the company, more than 250 landholders were expropriated from their lands without any compensation. The FDRE constitution article 40 (4) declares that Ethiopian peasants have the right to protection against eviction from their land possession. Sub-article 7 of this article states that every Ethiopian shall have the full right to the immovable property he/she builds. This right shall include the right to alienate, to bequeath, and, where the right of use expires, to remove his property, transfer his/her title, or claim compensation for it.

Moreover, the Federal Expropriation of Landholdings for Public Purposes and Payment of Compensation Proclamation No. 455/2005 article 7 assures landholders which states that “A landholder whose holding has been expropriated shall be entitled to payment of compensation for his property situated on the land”. But this proclamation failed to protect the evicted landholders because of the illegal expansion of Lega Dambi gold mining into the lands of landholders and expropriated them from their lands. Similarly, article 8 (1) of this proclamation states that “A rural landholder whose landholding has been permanently expropriated shall be paid displacement compensation which shall be equivalent to ten times the average annual income he secured during the five years preceding the expropriation of the land”. Besides, the FDRE Mining Operations Proclamation No. 678/2010 article 57(1) states that the Licensing Authority may expropriate any immovable property on any land and shall cause the payment of fair compensation by the licensee per the relevant laws. But in practice, like other laws and proclamations, it left on paper since both the government and MIDROC plc gold mining company did not pay any compensation for evicted peoples. Also, as indicated in table 4, all landholders, who asked whether the compensation was paid or not, responded that no compensation was paid for them while their lands were taken away.

Adonteng-Kissi (2017) posits compensation is inadequate in alleviating poverty because the package is not commensurate with the value of the profitable farming industry. Meisanti *et al.* (2012) present local farmers and the agricultural sector suffered a shock in social, economic, and environmental impacts from the gold mining activities. By the same token, the finding of this research exhibits that

large scale gold mining in the study area negatively affected the ways of life, economic activities, social setting, and income of local communities since there is no paid compensation for them and no attempt was made to resettle them.

b. Compensation for Victims

As the researcher tried to mention above, under the sub-section of welfare and health related problems of the local community, many local communities who live around the Lega Dambi gold mining company die because of the polluted water. Further, cattle, goats, sheep, and donkeys of the local community dead because of the released chemicals and toxic water from the company. Besides, the World Bank (2016) explained that Cyanide is used in gold leaching processes in Ethiopian mines. Following this, local communities asked for compensation, but no compensation has been paid for them yet. Some people provided compliance to the *woreda* whereas others took their case into law.

The local community focus group discussants mentioned that:

We lost the lives of many people because of drinking the toxic water, which was added to the nearby streams from the company. Others faced skin problems, a lot of women were miscarried, the children were born without testis so that they will not replace their off-springs through reproductions. Likewise, we lost the lives of many cattle, sheep, goats, and donkeys because of the supra mentioned reasons. We requested both the government and the MIDROC many times for compensation as remedial, but they did not give any response to us yet (**Local community focus group discussants**).

FDRE Mining Operations Proclamation No. 678/2010 article 57 (2) declares any license holder shall be liable for any damage caused to property in connection with its mining operations. In line with this, what local communities are questioning is legal. For landholders, what constitutes properties are their cattle, goats, sheep, and/or donkeys. Even though this proclamation did not explain the mechanism of compensation payment of the license holder—MIDROC—for the local community, it stated about the liability of the company for the damage to the property of the local community. Hence, the company is responsible for the damage it caused. Hence, the company has to compensate the landholders—victims.

4. Conclusion

Currently, Ethiopia has attracted both domestic and foreign investors to increase economic growth and boost development. To achieve this, the country has launched an export promotion and import substitution strategies. The main export items of the country are coffee, Khat, skins, pulses, and

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minerals. Ethiopia is rich in gold deposits which are mostly found in the north, south, and west parts of the country. Gold is highly produced by artisans through traditional means in Ethiopia. In addition to this, the government has been producing gold in Oromia Regional State, Guji *Zone*, Odo Shakiso *Woreda* since late 1930 as state-owned gold mining. After 1997, the state-owned Lega Dambi gold mining has been privatized to the MIDROC PLC gold mining company. Since then, it has produced 4.5 t/y gold for the last two decades.

The company affected the life of the local community through a decline in the quality of livelihood of landholders and artisans, and the decline of current income of the landholders. Absence and/or lowness of getting job opportunity of local labor and community in the Company, and absence of transparency in the company on labors recruitment and wage payment violated the right to get job of local labors. The company also expropriated of more than 250 landholders from their lands without any compensation. Similarly, the company negatively affected the welfare and health of the local community and their animals: disabled, legs and hands injury, miscarriage of women and animals, diabetes, blood pleasure, and heart disease since it used dangerous chemicals like Hydrogen Cyanide and Mercury to purify the gold from the soil without rehydrating them. Moreover, isolation of the company from the local community and local administrators, absence of transparency in the company, and improper payment of royalty and land taxes forced the local community to oppose the renewal of the license of MIDROC Lega Dambi gold mining company which was responsible for the termination of the company.

In addition to this, the company has violated legal rules of the country like the FDRE constitution, the federal land administration, the compensation payment, and the Oromia Region State land administration proclamations. To tackle those problems, the federal government should decentralize corporate social responsibility to the regional state and local government. Besides, formal agreements such as social and labor plan, impact and benefit agreement, community development agreement, and regional corporate social responsibility have to be designed and incorporated into the legal framework of the country. Lastly, the company should re-enter into commencement after they widely discuss with the local community, arrive at a consensus, solve their difference and rehydrate the hazardous chemicals because the company plays a pivotal role in paying taxes and generating foreign currency for the country. Lastly, the company should pay compensation for both the evicted local communities and the victims.

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Lists of Tables

Table 1. Demographic Characteristics of Sampled Participants

Personal Information		Participants Respondents	
		Frequency (N)	Percentages (%)
Sex	Male	190	50.40
	Female	187	49.60
	Total	377	100
Educational Status	Read & Write	200	53.05
	Ten completed	145	38.46
	Diploma	20	5.10
	Degree	2	0.51
	Others	10	2.55
	Total	377	100
Marital Status	Single	95	25.20
	Married	275	72.94
	Divorced	7	1.80
	Total	377	100
Work status	Farmers	180	47.75
	Merchants	93	24.67
	Mining	40	10.20
	Others	64	16.33

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	Total	377	100
Age	18-28	107	28.38
	29-39	130	34.48
	40-50	89	22.70
	51-60	30	7.65
	Above 60 years	21	5.36
	Total	377	100

Source: Own Computation Based on the Field Data, 2018/19

Table 2: Descriptive Statistics of Comparison of Landholders' Income

Group Statistics

	Group	N	Mean	Std. Deviation
Income	1.00	204	4775.1531	1234.74780
Score	2.00	173	2269.7923	1278.79639

NB. Group 1= former income Group 2= current income

Source: Own Computation Based on the Field Data, 2018/19

Table 3: Independent Sample T-Test Result of Comparison of Landholders' Income

	Levene's Test for Equality of Variances		t- test for Equality of Means							
	F	Sig.	T	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Income Score variances assumed	.511	.475	19.711	390	.000	2505.36076	127.10415	2255.6570	2755.25582	
			19.665	379.274	.000	2505.36076	127.40064	2254.86073	2755.86079	
Income Score variances not assumed										

Source: Own Computation Based on the Field Data, 2018/19.

Table 4: Status of Compensation Payment for Landholders

Items	Options	Respondents	
		Frequency (N)	Percentage (%)
Have you paid compensation?	Yes	0	0
	No	377	100
	Total	377	100

Source: Own Computation Based on Field Data, 2018/2019.

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Figure 1: Notice Shows the Prohibition of the Local Community from Toxic Water



Source: Field Observation, 2018/2019

Figure 2: Kinds of Injuries Local Communities Faced



Hands and legs problems



Skin problem



Spinal cord problem

Source: Odo Shakiso Environmental Protection, Forest and Climate Change Authority, and Field Observation, 2018/2019

Figure 3: Protesting of Local Communities against Renewal of Agreement of MIDROC



Source: Environmental Justice Atlas, EjAtlas.org, 2018