

Illicit Gold Mining and The Well-Being of Rural People In Sierra Leone- A Case of Gondama Community, Bo District

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Abstract

This study mainly investigated the socio-economic effects of illegal gold mining on people in rural community of Gondama Tikonko Chiefdom Bo District, Sierra Leone, West Africa. Mining is one of the oldest industries in the history of man's development, albeit its nature and form have evolved over the years. It has provided employment opportunities for millions of people across the world. Although people benefited from the gold, the integrity of both terrestrial and aquatic ecosystems has been compromised. The advertising of mining companies is visible increasingly as a way of imparting employment and enhancing economic growth. However, despite expected pleasantries of this trade, much attention has not been given to the effects these operations have on the surroundings and the inhabitants of these mining areas.

By adopting a purposive-randomized sampling technique, sample of 80 respondents were investigated. Data for the study were generated from primary and secondary sources. The data was analyzed using simple statistical packages.

The study reveals that 93.75% of the targeted sample population was aware of the illegal gold mining activities in the study community and respondents agreed that illegal gold mining is mostly practiced in the study area.

From the study, it was revealed that from the many causes found out, poverty is the main cause of illegal gold mining followed by unemployment in the community, Conflict between policy makers and the villagers, inadequate enforcement of mining regulation and self-interest and family dispute, were also mentioned.

Moreover, although malaria and typhoid were noted as the most common diseases in the community, there were reports of other water borne diseases in the community.

Key recommendations were proper monitoring and adequate policies at all mining areas in the country.

Keywords: Illicit, Gold Mining, Wellbeing, Rural, Sierra Leone, Bo

1. INTRODUCTION

Mining is one of the oldest industries in the history of man's development, albeit its nature and form have evolved over the years. It has provided employment opportunities for millions of people across the world. For example, in Australia, the mining sector provided direct employment to 208,200 people between 2013 and 2014, whereas in Ghana, it has created employment for 34,363 people as of 2020 (Asuamah Yeboah, Samuel: The Impact of Illegal Mining on Economic Growth and Development in Ghana, FBMS, Sunyani Technical University, Sunyani Ghana. 15 January 2023).

Mining has also significantly contributed to the economic development of many nations such as Jordan where government revenues from the mining sector were US\$ 180.4 million and US\$ 152.3 million in 2011 and 2012 respectively (Al Rewashed R, Campbell G, Titi A 2016). Moreover, in the second quarter of 2021, the contribution of the mining and quarrying sector to Ghana's GDP was approximately US\$ 809.4 million, and mining export account for 48.4% of Ghana's total exports as of 2020 (Sasu D (2021) Statist <https://www.statista.com/statistics/1237453/labor-force-in-the-mining-sector-in-ghana/> retrieved on 12:00 pm, 19, August, 2023).

It was reported that the GDP from mining in Liberia increased to 462.30 US\$ Million in 2020, while in Sierra Leone, mineral exports contributed about 0.7 to the country's GDP in 2018, and accounts for 64% of the total exports in 2018 alone (Trading Economics 2021 <https://tradingeconomics.com/liberia/gdp> from-mining retrieved on 12:15 pm, 19, August, 2023).

Mining refers to the technique of extracting metals and minerals from the earth, despite its positive economic impact, there are also negative externalities and anomalies associated with its operations. Mining activities have been reported to have a negative impact on the physio-chemical parameters of local streams, consequently making the water unfit for other recreational and agricultural uses such as irrigation, and swimming. It has also been reported to cause siltation and sedimentation of local streams, and river pollution. In some other regions, mining operations have affected drinking water quality, as reported in the Republic of Guinea where the Lefa gold mine (LGM) released tailing into a lake nearby communities used for domestic chores, resulting in clean drinking water crisis (Asuamah Yeboah, Samuel: The Impact of Illegal Mining on Economic Growth and Development in Ghana, FBMS, Sunyani Technical University, Sunyani Ghana. 15 January 2023).

Furthermore, mining operations are a major point source of air pollution in operational communities, and often release elevated levels of particulate matter (PM), especially PM10 (T. Hauling trucks, drilling, blasting, quarrying, and crushing not only create noise but produce dust, affecting the variables of air quality in mining communities . This poses a threat to the health of the miners as well as the local population. In some cases, it could even result in health complications and death, especially in local residents with heart

and lung disorders. Other studies on mining found that it can cause the disappearance of aquatic flora and fauna. In India, for instance, pollution of the Uppateru estuarine by Iron ore tailing negatively affected the density, diversity, and spatial distribution of benthic foraminifer's fauna. In Mexico, a significant change was found in the composition of floral communities in a mining site contaminated with heavy metals. Deforestation and soil pollution, heavy metals pollution of soil are other notable environmental impacts of mining. The review by other researchers has discussed the impact of mining on human well-being and environmental quality (Chuhan-Pole P, Dabalén AL, and Land BC: Mining in Africa: Are Local Communities Better off? Africa Development Forum, World Bank: Washington, DC, USA, May 2020 pdf).

Mining in Sierra Leone has been visible as one of the key elements for instability inside the United States of America and one of the motives for the use's latest civil warfare. Traditionally, blessings from diamond mining have ended up with private organizations and corrupt officials rather than the use of authorities and those. The Ministry of Mineral resources is accountable for the management of the use's minerals quarter and the Mines and Minerals Act 2009 (<http://www.sierra-leone.org>, retrieved on 1:13 pm, 19, August, 2023).

Sierra Leone is a candidate for the Extraction Industries Transparency Initiative (EITI). GoSL publishes records on licenses and payments by using mining businesses on their Online Repository mounted via Revenue Development Foundation, the repository became released in January 2012. Organized mining began within the Twenties with bauxite first being recorded in 1920 along the Falaba to Waia Avenue. Diamonds were discovered inside the early Nineteen Thirties, from 1934 to 1956, the Sierra Leone Selection Trust (SLST) held the monopoly for mining, prospecting for and advertising and marketing diamonds in the course of Sierra Leone. The Consolidated African Selection Trust Ltd (CAST), which owned mining operation round West Africa, furnished the preliminary capital for the SLST 2009 (<http://www.sierra-leone.org>, retrieved on 1:20 pm, 19, August, 2023).

The monopoly changed into at the start given for 99 years but in 1955, the SLST gave up rights to alluvial deposits outdoor its hire vicinity. This allowed artisan and small-scale mining of alluvial deposits and by way of 1965 there had been a large movement from agricultural paintings to operating those deposits (Schwartz, Priscilla 31 October 2006). In 1970, a joint SLST and government employer become fashioned known as the National Diamond Mining Corporation (NDMC). Before the begin of the Civil War in 1991 250,000 humans made a living in the mining and quarrying area with direct and indirect employment accounting for 14% of the United states of America's overall labor force. (<http://www.sierra-leone.org>, retrieved on 1:25 pm, 19, August, 2023).

Sierra Leone is widely known for its widespread endowment in minerals which consist of diamonds, rutile, bauxite, gold, iron ore, limonite, platinum, chromite, coltan, tantalite, columbine, and zircon, as well as promising petroleum ability. In the Nineteen Nineties, the 11-year civil warfare funded with sales from the

minerals quarter engulfed the United States, resulting in widespread killing, the destruction of infrastructure, and a severe contraction inside the economy. The sector was also significantly stricken by the dual surprise of the drop in iron ore charges and the Ebola epidemic in 2014 (<https://en.m.wikipedia.org> retrieved on 2:20pm, 19, August, 2023).

Irrespective of its environmental implications, there are also social impacts of mining such as high cost of living especially for the non-mining population, high crime rate including violence and tension, and prostitution. The loss of traditional values and norms and a decrease in the rate of social interaction and habitation of families were also been identified as the social impact of mining on local communities. The current study builds on pre-existing studies by investigating/accessing the environmental and socioeconomic impacts of illegal gold mining on selected communities in Tikonko chiefdom Bo District, Southern part of Sierra Leone.

The Sewa River which has been the main source of our agricultural activities, fishing and drinking water for our people living along the Sewa River. It was also used as a source of sand mining, which has never disturbed the river. The Sewa river and the land has been contaminated by illegal gold mining activities in the Southern part of the country, it flow from the north east part of the country, which originated from mountainous area near the border of Guinea before it reaches Tikonko chiefdom and empties into the Atlantic ocean. Despite the chiefdom is without pipe borne water, yet boreholes and the river Sewa have been their main source of water for domestic purposes and agricultural activities likewise the land. (<http://www.sierra-ieone.org>, retrieved on 2:30 pm, 19, August, 2023).

Very recently, people got worried that the fishes or other marine creatures are dying at an alarming rate and poor outcome of crop yield due to soil fertility and environmental degradation as a result of the massive illegal gold mining activities in Gondama Tikonko Chiefdom. The color of the river has chances to dark brown and the land has been degraded and nothing seems to be done by the authorities to address their plight. Gondama, Njala, and Kassama gold mining activities are ongoing there and this is currently affecting the river as well as the land. This water pollution has rapidly spread to several towns along the bank of the river to the point that accessing pure and affordable water is a major concern. On the other hand Land pollution as rapidly degrades several towns in Tikonko Chiefdom which has led to poor soil fertility, Soil erosion, landscape, deforestation, depletion of water quality and lost biodiversity. (<https://en.m.wikipedia.org> retrieved on 2:40pm, 19, August, 2023).

However, there is a need for the researcher to undertake this study, in other to understand the relationship between the Socio-economic effect of illegal gold mining and the people in rural communities and recommend possible ways to address illegal gold mining on rural community people problem before it escalates even further

2. RELATED LITERATURE

2.1 The causes of illegal gold mining

Undoubtedly, mining activities either illegal or legal tend to give financial support and independence to people involved in it and the communities in which mining operations occur tend to indirectly or directly have a fair share of that benefit through employment, improved sales, etc. but these benefits cannot outweigh the negative implications the mining activities have on the environment, the people and their livelihoods. In their paper they laid emphasis on some factors that influence individuals to engage in these activities and they include Poverty, Lack of education and employment skills, Lack of job opportunities, High rate of unemployment, Huge start-up capital for businesses, Poor business performance, High dependency rate in families, Loss of farm lands, Ineffective social intervention programs, Averting cost of legal processing and attached responsibility in mining, Excessive Bureaucracy in attaining requisite license. Based on the findings of Osei A. K et al's (2016) study, household size, age, sex, educational attainment, perceived risk and peer influence were the key influencers of individual's decision to participate in illegal mining activities in the Denkyira corridor in Ghana. On this ground, they recommended an intense mass education on the negative effects of illegal mining to be rolled out for especially males, household heads, and the youth. According to Arah I. K. (2014), there was an upsurge in informal employment in the mining sector which was twice that of the formal sector in the mining industry. These activities created employment for individuals in mining communities, and those around them. Illegal mining activities are predominant in the western, central, and eastern parts of Ghana, and these places hold the majority of unskilled and unemployed youths (60% of Ghana's population are located in rural areas). The availability of these precious rocks and metals seems to be the only alternative lucrative enterprise to venture in. Currently, the unemployment rate in Ghana stands at 6.70% and the majority of this percentage are involved in illegal mining operations. (Obeng Belinda Faamaa: Assessing the factors influencing illegal mining operations; evidence from Ghana. 11, Nov 2020 PDF)

Basically, before an area can be explored and exploited for mining, the area must first be included in the Mining Area. Mining Areas are areas that have mineral and / or coal potential and are not bound by government administrative boundaries that are part of national spatial planning. The determination of the mining area is determined by the local government and consults with the House of Representatives.

- Illegal gold mining activities are gold mining activities carried out either by individuals, groups of people, companies or foundations whose legal entities do not have licenses from the central or regional government in accordance with applicable laws.
- There are several problems in gold mining activities without a permit, including: Work safety is not guaranteed, due to the use of toxic chemicals such as cyanide and mercury used by miners in processing

gold ore. The miners work with very simple techniques that are traditionally learned that were inherited from their ancestors.

- Unauthorized gold mining activities carried out by the local community have resulted in an unharmonious relationship between official mining which has obtained a permit from the local community. On the other hand, the community's ignorance of the laws and regulations that apply in the mining sector as well as the weakness of the laws and regulations in the mining sector are reflected in the weak alignments towards the interests of the wider community.
- Limited employment opportunities and business opportunities according to the level of expertise or skills of the grassroots, poverty in various ways such as economic poverty, low knowledge and skills, and a prolonged economic crisis gave birth to unemployment. These factors are driving the community in the village to conduct gold mining business activities without a permit with a very high risk of personal safety because of the risk of using toxic chemicals such as mercury. On the other hand they are dealing with the authorities who are responsible for mining without permission, so that conflicts often occur between the police and villagers who own land. Exploitation of natural resources by Illegal gold mining that is carried out on a large scale and not in accordance with operational standards results in environmental degradation and damage. Changes in the environment around mining that are not done wisely have a negative impact on farmers who have land around the mine. Besides that, the implications of Illegal gold mining not only damage the ecology and environment, but also disturbed the social community. The social impact of mining causes damage to the social relations that have been fostered between community groups in an area such as suspicion of mutual suspicion, communication between residents and village officials that are often not in line and so forth.
- Illegal gold mining is a very profitable and attractive business. The rise in illegal gold mining has led to a statistically significant increase in violence, as measured by the rate of killings and slaughter victims, gold is believed to be the new engine in the Colombian conflict. On the other hand shows that Illegal gold mining has a positive impact in improving people's lives in the form of work, generating income and meeting health, education needs for families.

2.2 The adverse effect of gold mining on the health condition of the rural people.

Land degradation caused by illegal gold mining activity has three direct negative impacts of concern: the spread of malaria, degradation of agricultural land, the risk of landslides, and, to a more limited extent, deforestation.

Each of these issues is discussed below.

• Increased spread of malaria

Many alluvial gold mining pits that are left behind contain stagnant water. This provides a breeding ground for mosquitos. Those mosquitos spread malaria, especially among the people living, working or playing

close to the open pits, streams and rivers. These people include a large number of female illegal gold miners and the children who are accompanying them (and in a few cases, working with them), who are typically the most vulnerable groups in rural communities.

• **Diminished agricultural production**

The lack of rehabilitation and reclamation efforts affect the land's suitability for agricultural use and thus agricultural production, which may affect food security. In some cases, farmers have taken it upon themselves to recover some of the land, incurring significant effort and costs. Besides the effects from land degradation, agricultural production is also affected because many young men choose to mine gold rather than to farm, given the consistent and fast cash it provides. Many people also chose to combine the two activities and use gold revenues to invest in agriculture, as discussed above.

• **Deforestation, biodiversity loss and soil erosion**

The preparation of illegal gold mining mine sites requires the removal of plants and trees, which are typically not replanted after the mining ends and which are less likely to grow again due to the removal of layers of fertile soil. This contributes to deforestation and may, depending on the location, also cause loss of biodiversity. Moreover, the removal of trees, and with it, their roots, increases soil erosion and undermines slope stability, which could lead to landslides. While actual landslides caused by illegal gold mining activity have not yet been reported in Sierra Leone, there is an increased risk in SSGM or in illegal gold mining if excavators are used because the mining pits are bigger. Soil erosion has also caused the shrinking of swamps through siltation. These issues are particularly pressing as significant illegal gold mining activity has been reported to take place in Sierra Leone's national protected areas, such as the Gola Rainforest.

Contamination of water resources

Another major environmental impact from illegal gold mining activity is the contamination of water resources, particularly streams and rivers. This is mainly caused by the runoff of mining waste from tailings which are poorly managed, if at all. For example, in Baomahun, mining waste and tailings including mercury, is washed down to the valley during excessive rains in the wet season. Even where no chemicals are used water quality is affected; the sediments that are released to the water increase turbidity, thus reducing the amount of light available to the river habitats. This is likely to adversely affect aquatic life and biological diversity in river ecosystems. Moreover, it also affects drinking water that nearby communities and farmers' cattle may rely on, which may further exacerbate the risk of cholera, an important health risk in many of Sierra Leone's rural communities.

Disruption of river systems

In rivers where dredges are used, such as in the small-scale gold mining operations in the Tayei and Pampana rivers, the flows of river systems are disrupted by the excavation of soils and the dumping of mine tailings. The disruption of river systems is less observable and likely less significant in illegal gold mining that takes place in rivers (which are mainly panned by women).

Social disorder (in rushed gold mining settlements)

Sierra Leone's illegal gold mining sector changes rapidly, and the discovery of new gold deposits sometimes leads to the rushed creation of temporary, ill-maintained settlements. People from different areas migrate to such settlements, which in some cases (Komahun is a case in point) leads to large masses of people working and living under precarious conditions (e.g. small houses made of metal plates or sticks that are poorly isolated and cramped together). In such situations, sexual diseases spread more rapidly and teenage pregnancies occur more frequently. Moreover, alcohol and drug abuse are more pronounced in such areas. However, these issues are much less pronounced in illegal gold mining areas that are more established and stable in nature.

Occupational health and safety

Although most of the AGM miners operate in alluvial mines, they increasingly work in deeper pits, where they face the risk of pit collapse. This risk is more pronounced in SSM operations and in AM operations where excavators are used. Besides the risk of pit collapse, ASGM miners also face multiple risks of injury, though the risks in alluvial AGM (the majority of the sector) are significantly lower than in more mechanized and underground operations because alluvial AGM occurs close to the surface level with little mechanized equipment. Some of the more 'minor' health complaints that ASGM miners frequently deal with include back pain and muscle aches resulting from their demanding physical work. Moreover, among alluvial illegal gold mining miners who spend extended amounts of time in the water, cold, fever, coughing, skin rashes and skin aches are frequent symptoms; and dysentery and pneumonia occur to a lesser extent.

Mercury and acid poisoning

Although limited to hard rock sites in only two communities (Komahun and Baomahun) and (likely) SSGM companies operating elsewhere, people in those areas are exposed to mercury intoxication as mercury amalgams are burned openly without the use of mercury-capturing devices. Depending on the scale and length of exposure, mercury intoxication likely affects the central nervous, digestive and immune systems, and kidneys and lungs of those who are exposed to it – notably gold miners, traders and community members (including women and children). Besides the health effects on human beings, the mercury which is emitted to the air increases global pollution levels. Moreover, the mercury which is released to land and water degrades the environment and bio accumulates in aquatic life in nearby rivers, thereby likely affecting

local fish consumers. This is particularly concerning since many Sierra Leoneans depends mainly on fish for protein in view of high meat prices.(Republic of Sierra Leone National Action Plan for Reducing Mercury Use in the Artisanal and Small-scale Gold Mining (ASGM) Sector in Sierra Leone. April 2020)

3. RESEARCH METHODOLOGY

3.1 Description of study area

The study was carried out in Gondama and other communities situated along the Sewa River in Tikonko chiefdom, Bo District, Southern part of Sierra Leone. Tikonko Chiefdom is one of the 15 chiefdoms in Bo District. Although according to Statistics Sierra Leone (2015), the Chiefdom has a population of 53,206, estimates by local authorities suggest that Gondama has a population of 3,500 people and about 550 homes in 2013 (www.sierraexpressmedia.com, retrieved on 19/04/24 at 10; 49 am). The community is 7 miles away from Bo city. The community was used has played host to a huge number of suffering refugees from neighboring Liberia during the country's bloody civil war in between the 80s and 90s. Additionally, Gondama also hosted Sierra Leoneans displaced by our own decade-long civil war.

Even after the war ended, some individuals found a safe haven in the community and established families and other relations there. The 5th Infantry Brigade of the Republic of Sierra Leone Armed Forces (RSLAF) is also located at the Gondama community, often dubbed as "Gondama Barracks". Owing to the presence of the Sewa River in the community, and the presence of precious minerals like diamonds, gold, and other sand-based minerals, the community is known for extensive extraction of minerals. Sand mining is also very common in the Gondama community. Extraction pumps (dredges) used for the mining of gold and diamonds are very common. During the dries, women of all ages (see Figure 1 below) are often spotted by the foot of the river, and some times in the middle of it, with their sieving pans mining gold. Those who get lucky, sometimes make a find in diamonds.



Figure 1: Women using local tools in search of gold and other minerals along the Sewa River in Gondama. Source: Field survey, 2024

In addition to these activities, the community is also known for hosting other miners who use dredging machines (see Figure 2 below) to extract minerals like diamonds, chromite, and gold. Some of these dredge machines use chemical substances like mercury in the process of extracting gold. In addition to the use of mercury, diesel and gasoline fuel are also used in this process. These substances, known to be harmful to

humans, if consumed, drop into the river, which is also the source for drinking for most residents in this area.



Figure 2: Dredging system used by miners in mineral rich rivers in Sierra Leone. Source: Field survey, 2024

3.2 Techniques

Both qualitative and quantitative research designs were used for this study. Questionnaires were administered and focus group discussions held.

Primary data was collected from 80 respondents, who constitute mainly residents along the riverside of the community, miners (both males and females) Mines officers, community stakeholders, and health practitioners. The data was analyzed using simple descriptive techniques and computer program which included MS word and excel. The data was presented in the form of table, charts and graphs for easy understanding.

4. DISCUSSION OF RESULTS

4.1 implications of illegal gold mining on the wellbeing of residents along the Gondama Sewa community

Majority, 93.75%, of the respondents confirmed that illegal gold mining is taking place along the Gondama River Sewa. Both aborigines of the community and strangers do these mining activities from other parts of the country. Foreigners, Nigerians, Ghanaians, Chinese, Americans, and more also visit the community for similar activities to either mine directly or buy from the local miners. Key among the reasons for the mining

activities by the residents of this community is the high level of poverty, unemployment, poor mining regulations enforcement, and the desire to be wealthy (See Figure 4).

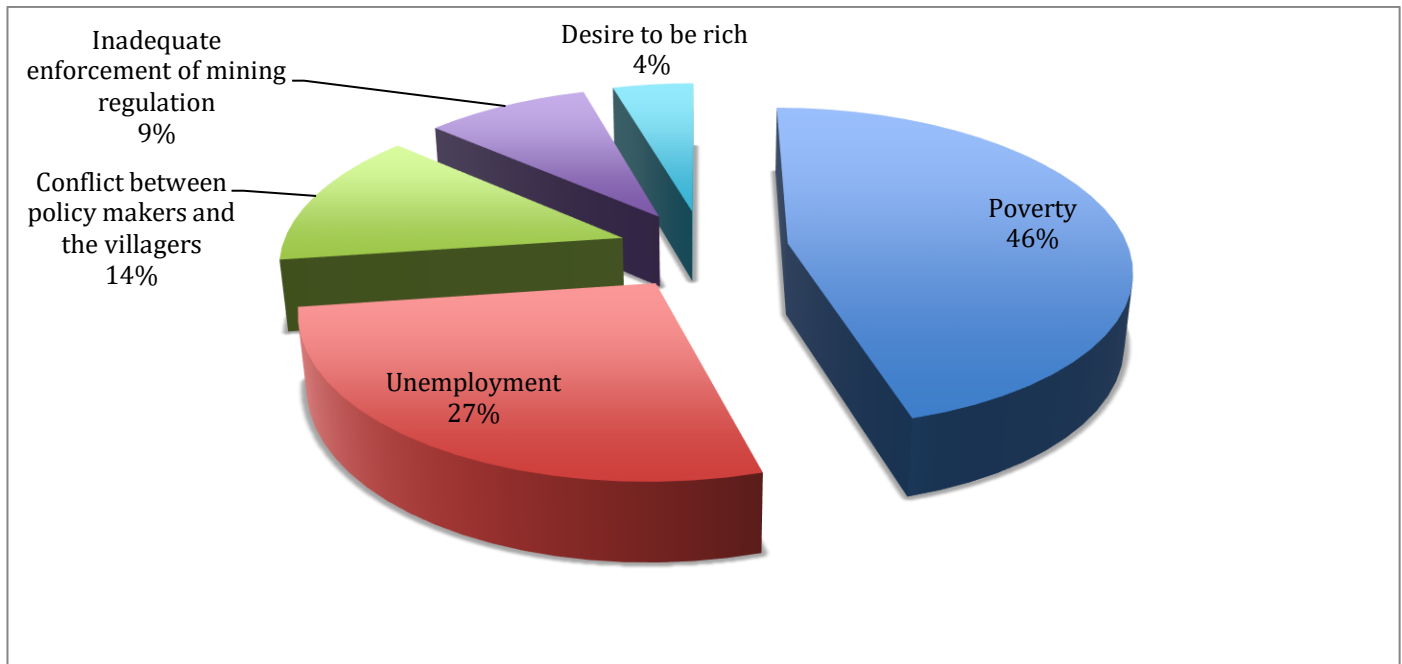


Figure 4: Reasons for illegal gold mining in the study area. Source: Field survey, 2024

The above figure shows the reasons for illegal gold mining in Gondama community. The study indicated that poverty, which accounts for 46% , inadequate enforcement of mining regulation (9%), conflict between policy makers and the villagers (14%), desired to be rich (4%) and unemployment (27) were major reasons for illegal mining in the Gondama environment.

The study also considered challenges posed by illegal gold mining to the Gondama community. Deforestation in the mining environment has created devastating consequences on the inhabitant of the community. The preparation of illegal gold mining sites requires the removal of plants and trees, which are typically not replanted after the mining ends and which are less likely to grow again due to the removal of layers of fertile soil. This act has rendered the community with multiple effects such as less agricultural productivity, erosion and consequently poverty among the community members.

Illegal gold mining activities in Gondama has reduced the community to child labor. Children between the ages of 6-10 years are often found on the mining sites transporting debris at far locations. Many of these children who are supposed to be at home or school are normally at the mining sites for survival. In the process of survival, many got ill while others injured.

Increased number of miners in the study area has an impact on their sexual activities, uncontrolled sex and other clandestine behavior can escalate diseases such as sexually transmitted diseases and other incurable health issues. Early marriage and gender based violence can also take a centre stage. Since Gondama is engaged in illegal gold mining, the responsibility of the family have shifted drastically.

Although gold mining, like other mining activities, is a source of livelihood for most of the residents in the Gondama community, there are reports of several health-related challenges associated with these mining activities. Whilst malaria and typhoid stand as the most common ailments in the community, Cholera, Skin diseases like scabies, rash, etc., cholera, dysentery, and lung diseases are also very common. These diseases (see Figure 3) are all, in one way or the other, related to water pollution challenges in the community. Human activities pollute drinking water sources. This is especially so when the major sources of water are the nearby streams. Mining pits are dug closer to these streams, often referred to as “Pit-banks” by miners. These pit-banks get filled with water and pose danger to the nearby community members through their harboring of mosquito parasites and other disease-causing parasites, as well as increasing the chances for flooding, which also pollute water sources like hand dug wells in the community.

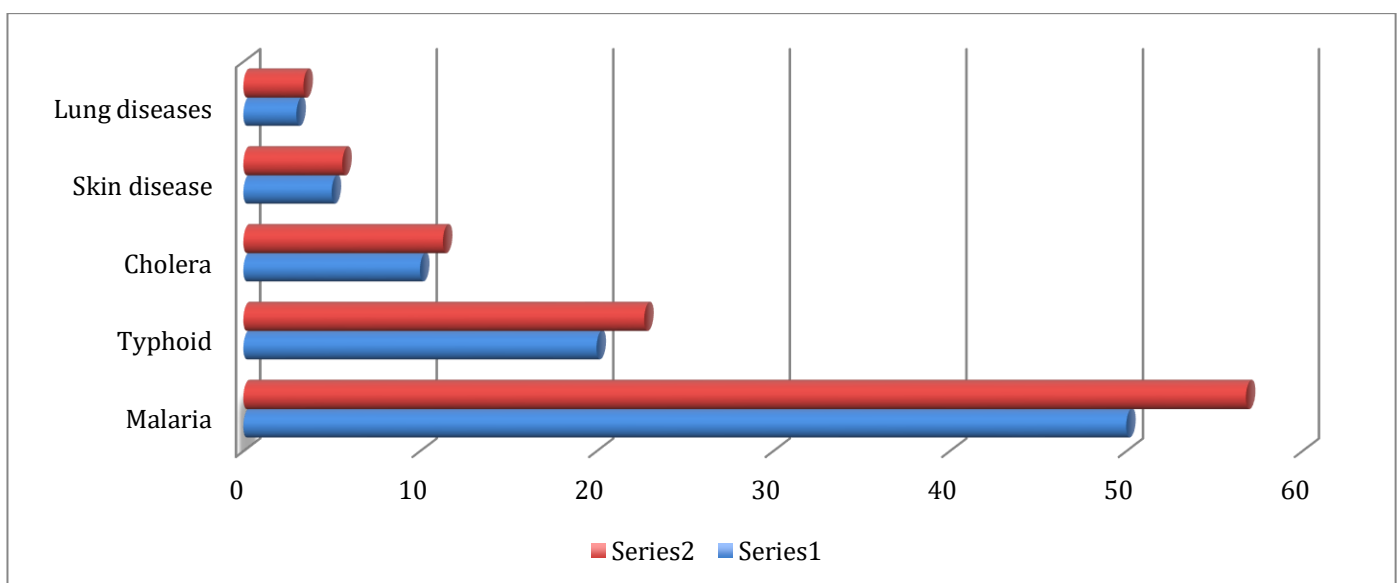


Figure 3: most common diseases among residents along the Sewa River at Gondama

From the data collected, majority of the respondents agreed to Malaria as the most common sickness, next to typhoid, and cholera in the study community during the study, and majority of the respondents agreed to Increases frequency of insect-borne diseases (malaria and skin diseases) as the major adverse effect of gold mining on the health condition in the study area during the study.

5. CONCLUSION

Base on the study, it can be concluded that, 93.75% of the targeted sample population of the study area aware of illegal gold mining in the study community and respondents agreed that illegal gold mining is mostly practice in the study area. There was very great extend agreements to the happening of illegal gold mining in the community which make it very severe in the study area.

From the many causes find out, poverty as the cause of illegal gold mining was prevailed during the study than any other causes as majority of them contacted agreed to it, next to unemployment rate in the

community, Conflict between policy makers and the villagers, Inadequate enforcement of mining regulation and self-interest and family dispute.

The negative impacts of illegal gold mining on rural people was malaria as the most common sickness in the study area, next to Typhoid, Cholera, Skin diseases and lung diseases. Also the major adverse effect of gold mining on the health condition in the study area was Increases frequency of insect-borne diseases (malaria and skin diseases), next to Increases frequency of cancer, bronchus, silicosis, Reduces the life expectancy and flooding and climate change.

Furthermore, respondent agreed that stakeholders come to the community to address illegal gold mining, and also majority said mines officers visiting their community to address illegal gold mining issues, next to police officers, community authorities and chiefs, EPA, and NPAA coming to their community.

6. RECOMMENDATIONS

This study has generated information that may be of great benefits to many stakeholders. These are policy makers such as, ministry of mines and ministry of lands, government authorities, community authorities and community people. Based on the investigation carried out the study put forward the following recommendations to help mitigate the problem:

Government

- Government need to focus on the illegal gold mining acts and policies and its full force ratifications to help reduce the pronounced illegal gold mining in not only Gondama Tikonko Chiefdom Bo District but also in the Country. This is because, no matter the rigidity of mining regulations on illegal gold mining in Sierra Leone, hence the practice of illegal gold mining is pronounced in the country; mining regulations will be highly fruitless in handling the menace.
- Government need to provide job opportunities in the community at least one industrial institute for both skill and unskilled laborers in every mining communities and big towns to be providing employment supports to people found in illegal gold mining.

NGO (Non-Governmental Organization)

- Non-governmental organization should provide offices in all mining areas to carry out proper monitoring and policy at mining site. This will aid, by taking care of the rural communities people wellbeing and needs that they wish to share in confidence but lack the platform to do so and in return end up turning to illegal gold miners.
- And as well NGO should collaborate with the government to make mining policies that will help in the reduction of mining waste and the control of mining activities in rural communities.

Community/people

- Community Authorities should make by-law in the community to regulate mining activities. This will help to mitigate the rapid illegal gold mining in rural communities.
- Community Chiefs and other stakeholders in the community should serve as role models by the illegal gold miners in and out of community terrine therefore, they have to be a good examples to the community people will like them to be. So, do all that you know can deter the progress of your people.
- Finally, Community authorities have to do proper monitoring always on their people and other miners in the community, know the type of mining activities that is happening and its effect in the community.

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