



An Exploratory Study on the Psychological Effects of Illegal Mining on Women and Children in Suburb Area of Osun State, Nigeria

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Abstract

Illegal mining has transpired into a serious psychosocial and economic problem with significant implications on children and women in Nigeria. The study delve into the psychological implications of illegal mining activities in Ilesha are of Osun State. The study focused on three specific objectives to (a) explore how the perceive the presence of the illegal miners in their community (b) explore how it affect their psychological wellbeing and that of their children. (c) delve into how it affects their socio-economic other areas of their lives. The study used qualitative study particularly Focus Group Discussion to investigate and assessed the objectives. Ten native settlers were selected using convenient sampling method to elicit responses based on the objectives. The study found a quite number of emerging themes that confirmed issues with psychological wellbeing and economic implications. The study concluded that the women and children consist a vulnerable group that is mostly negatively imparted by the presence of illegal miners. The study recommends a stringent rule to stop the activities of the illegal miners and ensure that if mining must take place, the original settlers must be compensated monetarily and still ensure that they feel safe in their communities.

Keywords

Illegal Mining, Women and Children, Psychological effect, Socio-economic

1. Background to the Study

The United Nation's Sustainable Development Goals (SDGs) has primarily focused on all issues that promote development activities across all continue to promote achieving a healthy world. The activities of miners are of great important to the promotion of sustainable climate and ecosystem. The illegal activities of miners have continually affected the mineral resources and the gains that will accrued to the revenue of the nations. Mineral resources are essential assets though naturally given to all nations abundantly and paleontological verification confirmed that since the creation of the universe, minerals are taken from the globe and used to make life meaningful. . Mining is one of the oldest economic activities in Nigeria, like in other countries and it has continued to contribute immensely to its growth and development. The sector has contributed to the growth and the development the country has witnessed in the last five to ten decades of its existence. Mining in Nigeria is regulated by the Ministry of environment and natural resources however the presence of illegal miners has created a big economic, physical and security challenges to several communities that host these illegal miners. Nigeria is bestowed with several mineral resources that some people are now exploiting through backdoor activities. Some of the available minerals are iron ore at (Itakpe), cassiterite is also found in Jos, columbite (Barkin Ladi), lead and zinc (Abakaliki), Kaolin (Nahuta), limestone (Ashaka), Marble (Toto), diatomite (Bularaba), gold (Ilesha), gemstones (Keffi), talc (Kagara), bitumen (east of Ijehu Ode), coal (Enugu), petroleum and natural gas (Niger Delta). Since the early 20th century, some minerals—most notably cassiterite (tin ore), columbite, tantalite, wolframite, lead, zinc, gold, and coal—have been mined and processed commercially. These minerals have significantly boosted Nigeria's national income and socioeconomic development. In smaller amounts, other minerals like monazite, xenotime, zirconium, thorite, and molybdenite have also been mined and exported. Mining and mineral processing have a variety of negative

effects on the environment (Ugodulunwa and Taiwo, 1997). One entails frightening the earth (by excavating a portion of it) and the ensuing fallout, including gullyng, rock falls, landslides, waste mounds, siltation of ponds and aquatic habitats, subsidence, and erosion. The immediate environment's pollution is the other type of impact. Consequently, major illegal mining activities are carried out in Osun State without paying attention of the extant laws that guide these excavating and mining operations.

2. Effects of Illegal Mining

Liquid and solid waste from mining/mineral processing areas requires specified storage and handling so as to prevent health related hazard. The mining industries mostly avoid the responsibility by channeling the waste into any nearby stream thereby affecting the quality of water available to people for drinking and household use. This has been noted to be responsible for pollution and destroys marine life. In the same vein, breathing and inhaling of dusty particles produced in mines could cause a major lung related disease (Pneumoconiosis) which may be deadly and incurable. Silicosis is another type of lung fibrosis that is mostly caused by the accumulation of silica particles. Additionally, the atmosphere is contaminated by gaseous waste released by mineral processing facilities. They have a negative impact on the ozone layer in the high atmosphere. Certain gases, such as nitrogen, methane, and acetylene, are inert and can result in asphyxiation by lowering the amount of oxygen that is available in the lungs to a level that is harmful for living. An further significant risk associated with mining is the occurrence of mine collapses, which are not frequently documented in Nigeria. Humans have frequently been affected by contaminated water or indirectly through the food chain. Mining operations may result in socio-environmental issues, such as the emergence of "deserted towns," which are former mining villages that sprung up and are now deserted as a result of the miners' activities. The huge damage done to the environment by mining and mineral exploitation activities seem to have reached an alarming dimension, and is the cause of incessant conflicts (often fatal) between villagers and the illegal mineral entrepreneurs who have taken over their communities forcefully.

Illegal mining operators mostly run on cheaper production costs due to its informal nature, which also allows it to avoid environmental restrictions and labor requirements. As a result, there are fewer prospects for growth and employment in the formal sector and the competitiveness and viability of mining businesses that are operating lawfully are compromised (Hilson & Potter, 2005).

3. The Current Study

Illegal Mining and Processing can cause adverse effect on the Environment and the dwellers of such communities. The illegal mining activities affect women and children such that several children live in abject poverty, lack access to basic health facilities and education. Before minerals can become useful commodities, they have to undergo series of processes or stages of development: exploration with or without prior processing, mine development, mining and processing. The presence of illegal miners in some of our communities has driven the settlers away and more like turning them to squatters in another community that may host them. This has a severe implication on the growth and the development of these children as many of them have lost their fathers as a result of crisis by the illegal miners who have seized their community from them. In addition to other environmental issues, the detrimental effects on the women and children may include household poverty and a lack of necessities for survival. The most frequent aerosol issue in the mineral industries is dust, which is a byproduct of illegal mining. It is typically created by fragmentation processes like drilling, crushing, and grinding, but it can also result from re-suspension from air movement or equipment operation. The noise produced by mining operations including drilling, blasting, and excavation of crystalline rocks with explosives can result in permanent hearing loss or impairment. It has been determined that exposure to high amplitude whole-body vibration poses a serious risk for the development of musculoskeletal illnesses and related health issues (Griffin 1990) It may also be associated with various co-morbid health conditions such as disc herniation, low back discomfort, early spinal degeneration, loss of visual acuity, and loss of postural stability and manual control. Radioactive elements from the host minerals are also more easily released into the environment as a result of mineral resource exploitation. The gaps identified in previous study shows that adequate research attention has not been given to the psychological implication of mining on the women and children in the host communities. The main objective of the study is to explore how illegal mining has affected women and children in Ilesa area of Osun State, Nigeria, where the main source of livelihood for these residents is farming, and with heavy reliance on stream water for drinking, household uses and for their farm's irrigation. Addressing these gaps will provide a more comprehensive understanding of the impact of illegal mining on the psychological wellbeing and economic growth and development in Nigeria and inform evidence-based policy and interventions. The specific objectives are:

- (a) Explore how they perceive the presence of the illegal miners in their community.
- (b) Explore how it affects their psychological wellbeing and that of their children.
- (c) Delve into how it affects their socio-economic other areas of their lives.

4. Method

The choice of exploratory research here is informed by the need to investigate how the illegal mining activities affect women and children with the primary aim of formulating more specific questions for the study. The population for this study consists of men and women from Oora Igbomina Community Ilesa area of Osun State ranging from 18 to 60 years of

age. Participants from 18-25 years were selected to cover transformation issues in the research, while 36–59-year-olds will cover issues on family burden. In this study two sub-types of non-probability sampling were adopted namely, snowballing and purposive sampling method since the researcher realized that it will be quite difficult to get qualifying participants, hence, the adoption of snowball sampling techniques. The study utilized eighteen participants - 12 participants (12 women) were from the informal and formal sectors of the community. Thematic analysis was used for its advantage in breaking down interview information into clear sections which makes the research process easier, thus, making the most out of the data collected. Themes captured the most important aspects of the data in relation to the research questions.

Ethics in research was strictly adhere to for the study to regulate the procedures of a study and to ensure that the research does not cause harm and providing the best possible benefits for all stakeholders.

Respondent	Gender	Marital Status	Education Level
1. Saki	Female	Married	Secondary
2. Bunmi	Female	Single	Tertiary
3. Sherifat	Female	Married	Secondary
4. Tawakat	Female	Widow	Secondary
5. Victory	Female	Widow	No formal education
6. Olukemi	Female	Married	Tertiary
7. Ibilola	Female	Married	Tertiary
8. Funke	Female	Widow	Tertiary
9. Olubayode	Female	Married	No formal education
10. Tolu	Female	Married	No formal education
11. Abisola	Female	Married	Primary
12. Mopelola	Female	Widow	Secondary

This distribution picture is essential because of the need to take education levels into account when discussing how the activities of illegal miners affect women and children.

5. Result and Findings

▪ What do you understand by the illegal mining?

This section discusses the participants understanding of the term ‘illegal mining’. The data demonstrate that majority of the participants are familiar with the term, although in their native language as “ole ajialumoni”. The participants responded as follows:

- Men who are stealing our natural resources
- People that excavating our resources
- Thieves that are working for our leaders to steal our minerals.
- Superior people that have been given permission to destroy our lands
- Ole aji alumoni ile wa

A good number of the participants said that they were aware that these illegal miners are not sent by the government to do their activities, but they believed that some of their leaders sold those lands to them hence why they have right to do whatever they want of the land. Their statements above show that they understood that their activities are illegal.

▪ How do you perceive the presence of the illegal miners in their community?

The next question sought the views of participants regarding the presence of illegal miners in your community? Investigating the participants’ views on how they perceive the presence of illegal miners in your community. 80% of the participants indicated that are not comfortable with the presence of illegal miners as can be seen by their statements hereunder:

- The presence of the miners has affected how we live our lives.
- Our children are no longer feeling safe because they use to abuse and harass our children
- They make life generally difficult as we do not have our peace
- We are not happy with them
- Only the traditional rulers are benefitting from them.

The responses from the participants thus reveal that they are not happy with the presence of illegal miners because they do so many illegal behaviors like harassing and raping of their young children and several of them feel very unsafe with them.

▪ In what ways does the presence of the illegal miners affect your psychological wellbeing and that of your children?

The questions investigated how they have seen life and how the presence of the illegal immigrant alters their lives.

- The presence of the illegal immigrant does not allow us to like ourselves
- We do not feel we are doing enough in caring for our children because they have disrupted our proper way of life

- *I wake up and I work aimlessness around because I do not. Have any managing thing doing*
- *The demands of everyday weigh me down and my children could not go to school because of the fear of strangers kidnapping them on their way to school*
- *I feel like we are no longer in charge of our environment as we used to be where we can even plant our corns.*
- *Our experience with this illegal miner shows they are trustworthy and reliable*
- *As a native citizen here, our experience does not matter because they do not really care about us.*

The responses gotten from the participants thus reveal that they are not psychologically well with the presence of the miners who they consider as disturbing them and obstructing their lives. It is important to note that they are not psychologically comfortable with the illegal miners.

▪ **In what ways does the presence of the illegal miners affect your feeding and basic physiological need?**

The question delves into how they have been surviving in terms of basic life need like food, water and air, all the participants indicated that are suffering from the presence of illegal miners as can be seen by their statements hereunder:

- *Our live stocks are no longer safe, these people have stolen a good number of the livestock we have nurtured over the years.*
- *WE are finding it difficult to get good harvest from our farms because their tractors have cleared and damage many of our crops.*
- *My fear is that my children will not die because our stream water which we have relied on for years are no longer edible because it has turn to brown. Their machines are big and they keep digging the grounds for it.*
- *Food is more expensive as we could not farm again because of their presence.*
- *They are thieves; they have plucked all our ripe fruits without paying.*
- *Even the air we breathe in is dusty, our children complain of chesty cough and catarrh all the times.*
- *We don't even breathe in fresh air again.*
- *The machines they use for excavation has damage the taste of our water.*

The responses elicited from the participants truly depict the present suffering of the native owners of land where illegal miners are operation are been carried out. The participants related their fears, hunger and the discomfort brought upon them by the illegal miners on their land.

▪ **In what ways does the presence of the illegal miners affect your marriage?**

The questions delve into the area of marital satisfaction, spousal abuse, financial support and a host of issues relating to their relationships. The participants stated various ways in which the presence of illegal miners have disrupted their relationships and negatively affected them and some of the responses can be seen by their statements hereunder:

- *My husband has travelled out of this town leaving me and 4 children because he does not have any means of surviving here.*
- *Our men who were recruited by the miners died because they were made to face the difficult aspect of the job.*
- *I am a widow, my husband died during the excavation job, he went down into the well but he died there. No compensation till today.*
- *My marriage has suffered no money to keep the family together.*

As we rightly know that marriage is one of the key issues that promote psychological wellbeing of adults particularly women as evident in scientific literatures. The participants complained of loss of jobs for their spouses, some talked about the risk they were exposed to and how that has made some of them even lose the husband. The reaction shows that the women have suffered significantly as a result of the presence of illegal miners in their community.

▪ **In what ways does the presence of the illegal miners affect your future plans and aspirations?**

The question delves into the plans for the future, on things they need to do to that can cause a big improvement to their lives and future. All the participants indicated that their inability to work as a result of the presence of illegal miners as can be seen by their statements hereunder:

- *I don't even know if I will live long with this sickness in my body.*
- *Is it the children that we don't train that will cater for us when we are old.*
- *I will have to relocate to another city before I can start planning my future.*
- *We don't even have lands that we can sell to make money and start another business.*
- *Future is not important like today; we want to eat first.*
- *We cannot even farm to get money to send our children to school.*
- *I am tired of everything.*
- *I hope these aliens will leave our land someday, so that we can start planning for the future.*

The responses revealed that the women who participated in this study does not have any hope hindsight for the future because the illegal miners have disrupted their lives and living condition. They only want to survive and probably live for the day.

▪ **In what ways does the presence of the illegal miners affect your socioeconomic life?**

The participants were asked about how the presence of illegal miners affect their socioeconomic activities, their jobs and financial status. The responses of some of how the activities of the illegal miners affect them financially can be seen by their statements hereunder:

- *Lack of income has worsened my situation. I feel helpless because I have lost my job and now, I cannot buy food for my children*
- *I am worried that my children may not be able to get education because I don't even have money to send them to school this year*
- *Since I have lost my job, I have lost my respect at home and my husband now beat me because he is financially taking care of me during this period*
- *Before miners came, I was trying to improve my financial status and now I feel stuck*
- *These miners are wicked; they don't pity us at all. They sometimes go to our farms and harvest food they never planted.*

The responses revealed that loss of jobs is one of the major economic challenges for women and has got potential to lead to other social challenges for women in rural communities.

▪ **In which way are you as a woman feel concerned for your children's growth and development as a result of the illegal mining activities in your communities?**

The questions in this area centered majorly around how the women are feeling towards the general welfare of their children, the questions delve into issues of their education, health, feeding and other related concerns that could impede the optimal growth and development of children in the community. Some of the responses by the respondent about how the presence of illegal miners affects their children can be seen by their statements hereunder:

- My biggest fear is that my children may not be a graduate because of the way he has been missing schools lately
- Health is my own fear, my child cough at all times and the nurses keeps saying the air the child breathe in is not good
- Hunger is real in our community, our children are not feeding well, they don't even eat fruits from our farms because these people are thieves.
- My children are not drinking neat water and I cannot afford to travel to another town to buy sachet water.
- I just pity my children and I don't know where else to take them too

The response clearly shows that the women are concerns about the general wellbeing of their children and they felt that the activities of the illegal miners are seriously affecting the children and may likely impact their lives negatively as they are growing up.

6. Discussions

6.1 Perception and Understanding the Activities of Illegal Miners

As low as the educational level of the respondent, they are quite aware of the activities of the illegal miners in the community. This is to further clarify on the fact that maybe they really do not know what the activities are. It is sad to know that they are there illegally with the help of elites in the country to mine resources and disrupt their lives and living conditions without fear. The respondents are quite aware of the fact that the miners live large despite that they do not have the government permission to operate. They expressed their dissatisfaction and how the activities have hindered a lot of progress and development in their communities. They are quite aware that the security forces even protect them with some of them holding life firearms to scare them especially when they have their grievances. It was reported that they act as if they are above the laws and they see them get away with several havoc in their communities. Some of them mentioned that the miners are not just Nigerians, but some foreigners specifically Chinese are in the operation. The respondent noted how well they are afraid of the activities of the illegal miners in their communities, the complained about how it affects their general wellbeing and how difficult it is for them to survive among the illegal miners that are basically alien to their community.

6.2 Psychosocial Implication

Garuba et al. (2020) reported that Women, youth, and other vulnerable groups such as children, persons with disabilities, the poor, and the aged are a collective social category that has become most negatively impacted by mining in communities in Nigeria. The psychological wellbeing of the people is fundamental to their growth and development, is a multifaceted and multi-dimensional construct that encompasses an individual's overall happiness, satisfaction with life, and mental and emotional health.

They respondent are not happy with the presence of the illegal miners, they expressed how their activities has dampened on their mental health with fear of living in the environment. The complained about how helpless they feel especially with these people that makes lives difficult for them. They complained about how their girls are being harassed, abused and even exposed to prostitution just to earn little money for survival. They expressed how their children could not go to schools in the community because the environment is generally unsafe for the children. They also expressed how their marriages have suffered because they have lost their spouses to the illegal operation and how those

ones around could not keep up with the need of the family. They aired their fear for the future as they do not have plans for themselves because of the intrusion in their communities. Rose (1994) noted that the most common conditions associated with wars and displacement are depression, anxiety and psychosomatic problems such as insomnia, or back and stomach aches. This simply means there is a number of health risks these people are facing and some may have long-term effects on their mental health. Akinwale et al. (2024) study unveiled the burden of energy crisis among women in rural communities of Lagos State, as predicted, the study revealed that all the challenges that come with lack of access to basic and clean energy has severe implications for children and women, the study noted that clean and modern energy is not a luxury for city dwellers or the rich alone, but a necessity for every individual irrespective of age, status and educational background. The respondents noted how a basic amenity has continually been a nightmare because the little infrastructure they had has been destroyed by the illegal miners that intruded into their communities. This simply implies that the presence of the illegal miners has continued to pose a severe threat to their lives and the available infrastructure.

6.3 Socio-Economic Implication

The Nigerian Senate reported that as of 2021, \$9bn had been lost to illegal mining activities. It is also alleged that the illegal miners are friends and associates of elites' class in the country, it is sad to note that they have connived and bribed the security agents to mine minerals illegally. Illegal miners now prosper in the state and even own luxurious residences at the detriment of the original settlers of those communities. They have been so empowered to use firearms to wade off the indigenous people in the areas. Ogunnowo & Ojajorotu (2024) reported that poverty in the illegal mining sites in Osun state has been particularly fueled by the illegal mining activities that has now made the indigenous jobs of farming and hunting to be less attractive, interrupted, further hampering socio-economic productivity, and increasing the level of hunger among individuals and they further reported that destruction of the ecosystem through deforestation, soil contamination, and damage to natural assets such as brooks and streams that were hitherto sources of drinking water in the communities. Associated with that are sustainable livelihoods problems such as migration of animals that affects hunting and agriculture, including snail gathering and cocoa/kolanut plantations. The study noted that all these have a disproportionate socio-economic impact on women and children who are mostly at home. Siyanbade et al., (2023) recommends that the government at all levels be more active in terms of ensuring safety, eradicating poverty through the provision of agricultural infrastructure like modern storage systems and tractors, as well as improving social amenities such as roads, electricity, health, and education so that job creation can be a reality for the young people.

7. Conclusion

Nigeria is blessed with an abundance of diverse natural resources, the types and locations of which are influenced by the intricate geological past (pre-Cambrian origin) of both the nation and the surrounding continental shelf. These resources are national assets, and the generation of wealth, the nation's infrastructure, and the population's quality of life all depend heavily on their extraction and—more importantly—use.

In developing nations like Nigeria, the extraction of solid minerals is linked to significant negative effects on the environment and human health at every stage of the process. This study assessed the psychological implications of illegal mining activities on children and women in an identified illegal miner's operation site in Osun East Senatorial District of Osun State. The study explored the psychological wellbeing of women in the mining communities and found that a significant number of women in those communities reported low psychological wellbeing, they are living in fear, hunger and have no plan for the future and reported a high level of concerns about their socio-economic.

8. Recommendation

The recommendations are intended for stakeholders who are influential in approving and granting access for illegal miners. This includes the consumers of this research, policy makers and the professions. The researcher identified the psychosocial challenges faced by women who are living in communities where illegal miners have invaded. Therefore, based on the findings of the study, the following recommendations were made.

The study recommends that women at local communities and the rest of the township should be considered in the planning especially while giving out their lands to miner. Having a community dialogue will decrease the socio-economic challenges that women faced in illegal mining sites.

The researcher also recommends that the township members, the local police and psychosocial workers should actively work together to ensure safety and well-being of women in communities where illegal activities especially mining is going on to forestall these activities and possibly still ensure that their environment is still safe with adequate security measures. The police can intervene for women and children who have been harassed and molested by the illegal miners instead having to deal with it themselves. The psychologist and social workers can help the most vulnerable and affected women with counseling.

The Nigeria government should consider adopting immediate measures from all the agencies that are involved to ensure that illegal miners, whether foreigners or Nigerians are not allowed to mine mineral resources indiscriminately without adequate provision for the original settlers and users of the land. Fundamentally, all policy responses of the country concerning the illegal activities must embed a gender lens and advocate for women's unique needs. Furthermore,

responses aimed at reducing the impact of the illegal activities should highly consider protecting human rights for both men and women, which will bring about a safer community and building a more resilient Nigerians.

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