

## The Impact of Illegal Mining on Sports Participation and Community Well-Being in Ghana: Challenges and Prospects for Sustainable Development

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### ABSTRACT

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This study aims to evaluate the effects of illegal mining on sports participation and community well-being in Ghana. The study specifically seeks to determine the impact of galamsey activities on community health, athlete development, sports infrastructure, and general sports participation in areas affected by mining. This study evaluates the effects of illegal mining on sports engagement and community well-being in Ghana. The Galamsey, an illegal small-scale mining practice, negatively impacts social infrastructures, particularly community well-being and sports participation. The report suggests that there are health hazards from environmental pollution, deteriorating sporting facilities, and a decline in youth involvement due to unlawful mining activities. However, the shift towards mining has disrupted sustainable livelihoods and communal cohesiveness, impeding local talent and community growth. The study used a qualitative research technique to examine the effects of illicit mining on Manso Datano and Keniago in Amansie West and Amansie South Districts. Thirty participants, including youth leaders, teachers, coaches, health workers, and community elders, were interviewed. This study highlights the devastation of sports facilities, health risks, and mitigating measures. It also highlights the decline in parental and school involvement in sports, as well as the absence of equipment, upkeep, and enthusiasm for sports activities. The study recommends community engagement tactics, public awareness campaigns, school assistance, community activities, and legal actions to lessen these effects. Policy reforms, funding for sports infrastructure restoration, and the integration of health and sports activities are proposed as vital steps towards sustainable development and recovery in affected areas.

### 1. Introduction

Due to the detrimental effects on the environment, public health, and local economy, the practice of illicit mining, known as galamsey in Ghana, has generated a lot of controversies. More recently, its influence has grown to include social infrastructures like involvement in sports and communal well-being. Sports, generally considered a way to foster social cohesion, growth, and health, are facing hitherto unheard-of difficulties in areas substantially impacted by illicit mining operations (Teschner, 2022). According to Owusu and Appiah (2021), illegal mining refers to unlicensed small-scale mining operations that are conducted without following the law or environmental standards. Due to factors like poverty, unemployment, and the increased demand for gold and other minerals, its prevalence has

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increased dramatically in Ghana during the past 20 years. The effects of galamsey are especially noticeable in rural communities where mining is the main source of income. On the other hand, the actions of illicit miners frequently result in severe environmental damage, crop devastation, soil erosion, and water pollution (Obiri, Osei & Boadu, 2021). The less obvious impacts of galamsey on social and recreational activities, such as playing sports, have not gotten as much attention as the more well-documented implications. Sports are an essential component of community life and are important for fostering youth development, social cohesion, and physical health. As such, their disruption is a critical concern in areas affected by galamsey (Ministry of Lands and Natural Resources, 2022).

According to Kumi and Hilson (2018), there are a variety of negative effects of galamsey on sports participation in mining towns and the harm to the sports infrastructure is among the most urgent problems. Recreational places, such as community centres and sports fields, are regularly invaded by mining operations, resulting in land degradation that either destroys or renders unusable these areas. Football grounds, athletics tracks, and other sports fields are frequently taken over by illegal miners, forcing young people and neighbourhood teams to leave these areas. Moreover, the health risks connected to galamsey provide a serious barrier to sports involvement. Mining regions are vulnerable to water pollution, especially when dangerous substances like cyanide and mercury find their way into rivers and streams. Community members' health is negatively impacted by these pollutants, which can result in ailments like skin infections, respiratory issues, and heavy metal toxicity. People are, therefore, less likely to engage in physical activity or outdoor sports, especially young athletes and children, which lowers the number of people who participate in sports (Hilson, 2017). Galamsey also has socioeconomic effects that make it difficult for people to participate in sports. The prevalence of teenage involvement in illicit mining activities takes focus away from academic and recreational endeavours. There is a decline in the number of young people actively participating in community sports programs as a result of many young people in mining districts choosing to forego school and sports in favour of immediate financial benefits from mining. A move away from organized sports hampers efforts to promote young development through sports and erodes community bonds, claim Gyamfi, Amponsah, and Annor (2020).

The demolition of sporting facilities is one of the direct effects of illicit mining operations on sports in Ghana. Uncontrolled land excavation is a common component of illegal mining, which degrades public areas that are commonly used for athletic events. Football fields, school playgrounds, and other recreational spaces have been damaged by the invasion of illegal mining activities. Boakye-Danquah, Kumi, and Appiah (2023) have released research that highlights the loss of sports fields as one of the effects of galamsey operations in the Ashanti and Western regions. This has hurt young people and the community engagement in physical activities, which has reduced the availability of regular exercise opportunities and organized sports tournaments, so hindering the development of local talent. Significant environmental degradation has also been caused by illegal mining operations, especially when it comes to the poisoning of water bodies with dangerous substances like cyanide and mercury. The public, especially athletes who depend on good health to participate in sports, is seriously at risk from these contaminants. Athletes who are exposed to contaminated water or poor air quality run the risk of developing respiratory and cardiovascular problems, which can impair their ability to perform at their best (Bansah, Addo-Fordjour, and Owusu-Nimo, 2020).

Furthermore, the rise of waterborne infections owing to mining contamination further affects the community's potential to preserve a healthy and active sporting culture. The attraction of fast financial benefits from galamsey has directly impacted youth engagement in sports, driving many young people to forego sports in favour of illicit mining. The shift in focus towards mining operations has resulted in a decrease in youth engagement in local sports activities, as highlighted by Asamoah and Mintah (2022). This has an impact on people's health and well-being as well as the sense of community that sports frequently foster. The presence of illegal mining affects community well-being by fostering social disintegration in addition to having a direct negative influence on sports participation. In societies across time, sports have served as a unifying factor by fostering virtues like discipline, teamwork, and resilience. Agyemang and Adu-Gyamfi (2019) have noted that the introduction of galamsey into communal life has led to a collapse in social cohesion. Social unrest and economic instability are exacerbated by illegal mining operations, which frequently result in disputes over resource allocation, land use, and environmental destruction. Since natural resources are exhausted and lands become unusable for agriculture or recreation, this instability worsens living conditions in

mining areas and prolongs poverty. As a result, the potential for sustainable livelihoods is decreasing for the people in the neighbourhood. Because of the ensuing economic instability, social cohesion is strained, and local governments are less able to fund infrastructure for sports and recreation. There have been cases where mining has taken precedence over sports-related projects, resulting in the disregard for sports development initiatives and denying youth the chance to express themselves and grow as individuals (Akabzaa, 2020).

Galamsey poses serious obstacles to the sustained growth of sports and communal well-being. A comprehensive strategy that considers the socio-economic drivers of illegal mining, environmental conservation, and funding for community-based projects is needed to address these issues. To stop illicit miners from intruding on areas set aside for sports and recreation, the government must, first and foremost, strengthen the enforcement of mining legislation. To stop the expansion of illegal mining activities, cooperation between environmental agencies, traditional leaders, and local authorities is essential (Agyemang & Adu-Gyamfi, 2019). Moreover, funding youth development initiatives and sports facilities can serve to lessen illegal mining allure for youth. Alternative livelihood options can be created through education, training, and vocational programs, offering effective routes away from illicit mining. Sports have always been important in bringing people together, creating togetherness, and encouraging social engagement. However, because of unlawful mining, social dislocation has occurred, uprooting numerous families. Mining operations frequently turn regions into war zones, causing social turmoil and making it more difficult to plan athletic events and other group activities. Research by Owusu and Appiah (2021) claims that social networks that formerly promoted sports and leisure activities have deteriorated as a result of illegal mining damage to community cohesion. The short-term cash gained by illicit mining may benefit particular people and families, but the wider economic effects are frequently detrimental. Long-term economic instability results from the degradation of agricultural fields, which are vital to the livelihoods of many populations. The community's ability to fund sports programs, build or maintain facilities, and assist young athletes is all impacted by this disturbance. According to Asamoah & Mintah (2022), the fall in agricultural output brought on by illicit mining has had a knock-on effect that has decreased funding for community development activities, such as sports programs.

Even if there are many obstacles to overcome Galamsey, there are chances for sustainable development that can boost community well-being and sports involvement in mining communities. Putting community-centred sports programs into place to encourage social cohesiveness and increase environmental awareness is one exciting possibility. One way to educate people about the negative effects of illegal mining is to host community sports competitions that support sustainable practices and environmental conservation (Kumi & Hilson, 2018). Furthermore, sports can offer young people an alternative to illicit mining by serving as a platform for education and skill development. Through partnerships with governmental and non-governmental entities, grassroots sports organizations can provide training for jobs in sports administration, coaching, and officiating. These programs can encourage youth to pursue athletic vocations, which lessens the need for them to turn to illicit mining to make quick money. The main problem that illegal mining causes is environmental deterioration, which is in direct opposition to sustainable development goals. Long-term improvement in the impacted areas is threatened by pollution, deforestation, and land destruction. Communities are left with unproductive land as a result, which makes it difficult to develop sports facilities or carry out agriculture, impeding social and economic progress.

Owusu and Appiah (2021) emphasize that communities face difficulties in reconstructing infrastructure for sports and leisure activities because the process of cleaning up the environment after illicit mining activities is expensive and takes time. The effects of galamsey on public health make sustainable development even more challenging. The local healthcare systems are heavily burdened by the prevalence of respiratory ailments, waterborne illnesses, and other health difficulties, which limits the community's capacity to give priority to development projects like sports promotion. The long-term health repercussions of illicit mining can lead to decreased productivity and a lower quality of life, which both limit efforts to achieve sustainable development, as Obiri, Osei, and Boadu (2021) have emphasized. Reforms to the law and policy are necessary to lessen the negative effects of illicit mining on community well-being and involvement in sports. To stop illicit activity, the Ghanaian government has passed laws and implemented policies that try to regulate small-scale mining. Nonetheless, Hilson (2017) contends that to guarantee that people understand the long-term advantages of sustainable mining methods, these regulations must be strictly implemented with an emphasis on training and community involvement. Sports in impacted communities can be revived despite the obstacles presented by galamsey. Rebuilding social cohesion and encouraging healthy lifestyles can be greatly aided by community-based sports programs that emphasize environmental sustainability and inclusivity. According to Kumi and Hilson (2018), community members can develop a sense of ownership and responsibility by being involved in the creation and implementation of these initiatives, which will promote the

sustainable use of public places and resources. Additionally, these initiatives provide a means of teaching youth about the dangers of illicit mining and the value of environmental preservation. Furthermore, sustainable development is made possible by initiatives to restore degraded areas through reforestation and other environmental restoration programs. They suggest that combining environmental restoration projects with neighbourhood sports programs can have two advantages: it can improve physical well-being and raise awareness of environmental issues.

In Ghana, particularly in mining districts, the practice of illegal mining is a danger to community well-being and participation in sports (Akabzaa, 2020). The degradation of sporting facilities, health risks from pollution, and the disintegration of socioeconomic systems are major obstacles to sustainable development. However, there is a chance to lessen Galamsey's effects and promote sustainable development in impacted areas by putting in place focused interventions that emphasise environmental preservation, giving youth agency, and creating community-based sports programs. To ensure that sports can continue to play a crucial role in the overall development of Ghana's youth and communities, the government, local communities, and stakeholders must work together to address these concerns. According to Gyamfi, Amponsah, and Annor (2020), illicit mining has had a substantial negative influence on Ghana's ecology, health, and socioeconomic structure of mining communities, among other areas. There has been much discussion of the negative effects illegal mining, or galamsey has on the ecology and the economy. Its impact on community well-being and engagement in sports, however, is still little known. In particular, young people who would normally participate in sports, the development of athletic infrastructure, and the physical health of individuals are all directly impacted by land degradation, water body pollution, and socio-economic dislocation. The purpose of this study is to evaluate galamsey's effects on sports engagement and community well-being in Ghana. The study specifically aims to determine the impact of galamsey activities on community health, athlete development, sports infrastructure, and general sports participation in areas affected by mining. Furthermore, as part of Ghana's socio-economic development strategy, the research intends to investigate the obstacles galamsey poses to sustainable community development and suggest viable remedies that mesh with national initiatives to support sports and well-being.

### **1.1 Research Questions**

1. How has illegal mining affected access to sports facilities and resources in affected communities in Ghana?
2. What are the health implications of illegal mining activities on athletes and the broader community?
3. What strategies can be implemented to mitigate the negative effects of galamsey on sports participation?

## **2. Materials and Methods**

### **2.1 Research Design**

A qualitative research method using the real-life phenomenon qualitative research design was employed in this study. The study has greater practical significance because its focus on happenings in natural settings makes the findings extremely applicable to real-world situations. With this method, the impact of environmental, social, and cultural variables that controlled environments might ignore can be better understood. It also provides longitudinal observation, which provides a thorough understanding of the evolution of this phenomenon. As a result of encouraging greater participant engagement and producing more real, trustworthy data, the study design's findings are frequently immediately applicable to policy and practice, reflecting social opportunities and troubles.

### **2.2 Study Area**

The Amansie West and Amansie South Districts, which are located in the southern part of the Ashanti Region in Ghana, are the sites of this study. Before their administrative separation, these districts were historically a component of the larger Amansie District. Agriculture is the main economic activity in these primarily rural communities. Growing cocoa has been a significant enterprise, in addition to other food crops. Nonetheless, the rise in illicit mining in recent decades has had a major effect on the area. These areas, which are well-known for having significant gold reserves, are now hubs for uncontrolled mining activity. A result of the increase in illicit mining is the devastation of farmlands, poisoning of water sources, and breakdown of regional infrastructure. These areas include Manso Nkwanta, Manso Adubia, Manso, Datano, and Keniago. Uncontrolled mining activities have caused environmental

degradation and health problems in several of these towns due to galamsey. The livelihoods of the locals and the welfare of future generations are in jeopardy because of this.

**2.3 Data Source and Sampling Procedures**

The researchers performed in-depth interviews to collect data for the study. Rolland (2023) asserts that in-depth interviews give participants the freedom to answer questions in their own words as opposed to being forced to use prepared responses. The participants, who included youth leaders, educators, coaches, health professionals, and community elders, were chosen from the Ghanaian communities of Manso Datano and Keniako. Data saturation was used to establish the study's sample size. Saturation is the moment at which no new information or theories arise, according to Daher (2023). Thirty participants were interviewed with the help of research assistants who were trained and recruited by the research experts. In this study, sample strategies, including accidental, purposeful, and random, were used. By using these strategies, the researchers were able to enrol a sufficient number of participants who satisfied the requirements for inclusion in the study. Using these sample techniques, the researcher chose participants who could offer the data needed to look into the phenomenon under study.

**2.4 Analysis**

**2.4.1 Trustworthiness**

The theme analysis was examined through a peer-review process to guarantee the validity of the results. Examining the research techniques, data analysis, and decision-making processes at every level of the study were all part of this. In addition, the researchers were quite knowledgeable about the community members in the area and had a thorough awareness and understanding of the phenomenon under study. This prior knowledge and understanding made it easier to build rapport with the participants and made the interview process go on effectively and efficiently.

**3. Results**

**Table 1: Participants' Characteristics**

<b>Scale</b>	<b>Sub-Scale</b>	<b>Frequency</b>
<b>Gender</b>	Male	16
	Female	14
<b>Age</b>	18-25	6
	26-35	5
	36-45	10
	46 and above	9
<b>Level of Education</b>	Basic Education	7
	Secondary Education	14
	Tertiary Education	9
<b>Community Folks</b>	Community Elders	4
	Coaches	3
	Teachers	10
	Youth Leaders	7
	Health Workers	6

*Source: Field Data (2024)*

Table 1 presents a thorough segmentation of the participants based on gender, age, educational attainment, and community responsibilities, showcasing a varied representation in all categories. There is a balanced distribution of the 30 participants: 16 men and 14 women. There is a notable representation of older adults in the age distribution, which includes four distinct categories: 18-25 (6 participants), 26-35 (5 participants), 36-45 (10 participants), and 46 and above (9 participants). Seven individuals have only completed their basic education, fourteen (the largest group) have completed secondary education, and nine have completed post-secondary education. With four community elders, three coaches, ten teachers (the largest group), seven youth leaders, and six health professionals, the table also demonstrates the diversity of roles found in the community.

**Table 2: Themes, Sub-themes and Categories**

<b>Theme</b>	<b>Sub-Theme</b>	<b>Category</b>
1. Impact on sports facilities, resources and organisation	Loss of Sports Facilities	Destruction of Physical Spaces
		Encroachment on School Sports Grounds
	Neglect of Sports Resources	Lack of Equipment and Maintenance
		Lack of Motivation and Energy for Sports
	Parental and School Engagement in Sports	Shift in Parental Priorities
		Challenges in Organizing School Sports
2. Health and Well-being Concerns	Physical Health Implications	Respiratory, Gastrointestinal and skin conditions
		Fatigue and Low Energy
	Mental Health Implications	Stress, Anxiety and Depression
		Mental Fatigue for Athletes
3. Strategies for Mitigation	Community Engagement	Awareness and Education
		Support for Schools, Community Programs and Incentives
	Legal Measures and Integration of Sports in Other Community Activities	Policy and Legal Actions
		Funding and Restoration
		Health and Sports Integration

*Source: Field Data (2024)*

The intricate impacts of illicit mining on sports and public health in Ghana are shown in Table 2. It draws attention to important areas of concern, including the harm to resources and infrastructure, serious health effects, and the requirement for effective mitigating actions. To address these issues and protect and improve sports in the impacted areas, stakeholders, including members of the community, legislators, and medical professionals, must work together.

### **3.1 Theme 1: Impact of Galamsey on Sports Facilities, Resources and Organisation**

**Loss of Sports Facilities.** The participants were of the view that galamsey has impacted negatively to sports facilities, resources and organisation. The following excerpts support this claim:

*Our village had a well-kept football field those young men used for practice on the weekends and children frequented after school before galamsey activities became popular. Nevertheless, miners now occupy most of this terrain, making access to the area dangerous. There are no longer any safe areas for kids to play since the ground has grown shaky and riddled with large holes (Community Elder).*

*Galamsey affects facilities that were not situated on mining sites as well; its effects go beyond land acquisition. The field was previously maintained by the community pooling money to buy goalposts, nets, and field markings. Sadly, people who had previously contributed to these initiatives have either moved on or are now actively engaged in galamsey activities. As a result, the field has been neglected and is devoid of the tools and resources that are required. Seeing sports decline in importance within our community is depressing (Youth Leader).*

*There used to be a field next to the riverside that was the centre of a lot of community events, such as festivals. But since the miners came, the region has been plagued by many pits, which has caused significant floods. Consequently, this once-vibrant area is now completely uninhabitable. It's a sombre situation because this was a beloved communal centre with more meaning than just a sports facility (Coach).*

Teachers claim that school sports fields have been invaded by galamsey operations, making it difficult for schools to host interschool competitions. School sports programs have decreased as a result of the lack of appropriate fields, and the fields themselves have deteriorated as a result of inadequate funding and assistance for upkeep. The passages that follow support this claim:

*The environment in educational institutions is getting harder and harder. The area around our sports facilities has grown, and compared to prior years, school sports programs receive less funding. Sometimes it's difficult to schedule interschool games because of the state of the fields and the lack of funding for upkeep. There are parents who no longer value athletics as much as they once did, especially those who work illegally as miners. To get money, they are now more interested in getting their kids involved in mining activities.*

**Neglect of Sports Resources.** The participants voiced worry that recreational opportunities in areas impacted by illicit mining have gone unnoticed. Coaches and Youth Leaders stressed that a lack of community involvement has caused sports facilities to degrade, even those that are not directly affected by mining. The amount of money provided to maintain sporting goods like goalposts, netting, and field markings has decreased. Consequently, there is a shortage of equipment and less incentive to plan sporting activities. These observations are supported by the following excerpts:

*The crisis is most severely affecting the youth. In the past, we had formal training sessions and minor competitions, but these days, the majority of young guys are either directly engaged in galamsey or are fascinated by it. They don't have the motivation or zeal to play sports anymore. Those who are interested in sports also don't have the required space and resources. It's depressing because they used to get a feeling of discipline and purpose from athletics. These days, they are more concerned with making quick money.*

**Parental and School Engagement in Sports.** Teachers have seen that parents' priorities have changed, especially for those who are interested in galamsey, and they are no longer as focused on encouraging their kids to play sports. Rather, there's an increasing focus on getting their kids involved in mining for money. This change has resulted in a drop in funding for sports equipment purchases as well as participation in school sports programs. Instructors have mentioned that little funding from the school and no outside assistance make it difficult to plan interschool sports days and activities. As a result of the widespread occurrence of galamsey, parents' financial donations to sports have

diminished. As a result, it is very difficult for school sports programs to continue operating. This observation is supported by teachers' experiences.

*In the past, we used to receive support from local businesses and members of the community who were willing to contribute. However, the current situation is challenging. Many businesses are either engaged in illegal mining activities or have closed due to tough competition. As a result, there is a lack of donations for sports equipment such as balls, jerseys, and even water for the players. Organizing even small games has become difficult, and planning school sports days is a struggle. The school's budget is limited, and external support is no longer available. Parents are more focused on earning money through illegal mining activities, making it challenging to garner their interest in contributing to sports equipment. The focus has shifted to survival, and unfortunately, sports have been sidelined.*

### **3.2 Theme 2: Health and Well-being Concerns**

**Physical Health Implications.** With the rise in galamsey activities, many young athletes have been complaining of symptoms like exhaustion, coughing, and shortness of breath. Because of exposure to chemicals in the air and water, their endurance has diminished and even the once-strong are now having difficulty. Maybe as a result of the contaminated water, some people have suffered skin rashes. These observations are substantiated by the following excerpts:

*The unlawful mining activities have resulted in notable alterations to our environment and health. Due to the dust and chemicals produced by the mining operations, the air quality has declined, which has created difficulties for athletes who practice outside. Symptoms like exhaustion, coughing, and shortness of breath that were uncommon before the rise in illicit mining operations are now common among young athletes. Their stamina has significantly declined, and even the robust ones are now having difficulty coping with the increased exposure to environmental contaminants found in the air and water. Water bodies contaminated with metals such as mercury affect not only athletes but also the general public who utilize the water for everyday activities. I have observed athletes become sick and lose energy. We believe that the skin rashes that some people have gotten could be related to the contaminated water (Coach).*

Other participants said:

*The health of youngsters and young athletes is a developing concern. Their inability to attend school due to illnesses frequently affects their participation in sports and physical education. When they do go, their performance is impacted by their lack of enthusiasm and concentration. It depresses me as a coach and educator to see their potential hampered by these health problems. Now, a handful of the lads who were formerly among the quickest runners are finding it difficult to keep up, and some are even skipping training sessions. Our community's sports future is suffering from this tendency because, although there is skill, the athletes' physical health is being jeopardized (Health Worker).*

**Mental Health Implications.** The younger generation is experiencing a lack of optimism due to the deteriorating conditions of their surroundings and health. Their concerns about their well-being, their careers, and their children's futures are hurting their mental health. The physical hardship and unknowns surrounding their athletic careers add to their anxiety. One of the young leaders stated:

*Major ramifications for mental health also exist. The constant noise, the harm to the ecosystem, and the concern over contaminated water all contribute to stress. Many young individuals have pessimism about the future because they see their health and land being damaged. Athletes, in particular, are dealing with a sense of identity loss as their health issues now limit their potential, as sports were their escape.*

Another participant was of the view that:

*My attention has also been drawn to a rise in patients with anxiety and sadness. People worry about their health, their future, and their ability to support themselves and their children. Those who train outside are more at risk. They suffer from mental health issues as a result of the physical strains on their bodies and the uncertainty surrounding their sporting careers (Health Worker).*

### **3.3 Theme 3: Strategies for Mitigation**

**Community Engagement.** A few individuals suggested raising awareness of galamsey's long-term effects on the ecosystem and human health. By educating the public about these problems, galamsey's appeal may be lessened by highlighting the benefits of sports and other activities. Others recommended starting neighbourhood-based sports programs that offer instruction, training, and rewards to encourage youth participation. Linking athletic engagement to health advantages may help promote active living and decrease the allure of galamsey. Additionally, some participants underlined the need for prominent role models and the strengthening of sports infrastructure. It may be possible to draw and keep young people involved in sports programs by restoring damaged sports facilities and inviting successful athletes to speak about their experiences. The passages that follow offer proof for these recommendations:

*I think increasing awareness should be our first course of action. The long-term harm that hurricanes are doing to our land, water, and future is something that many people are unaware of. It's about compromising our resources, opportunities, and health, not just about losing sports fields. Telling people about this could make them realize how important it is to take a look at other options, including sports (Community Elder).*

*We've discussed this with the young people as well. Increasing the number of renowned role models in athletics could be one strategy. It would have a big effect on young people if professional players or athletes with success could interact with them and stress the long-term advantages of continuing in sports. Enhancing our infrastructure, whether it is by building new fields or repairing our broken ones, is something else we must prioritize. More kids would be motivated to pick up sports again by better facilities. A game-changer would be to show young people that athletics may provide long-term prospects and involve them with role models (Youth Leader).*

*I'm happy you brought up the facilities issue. The condition of our sporting facilities and the scarcity of funding are serious issues. Without sufficient infrastructure, we are unable to promote sports. Sports fields would be restored and improved with financial support from the public and commercial sectors. This would not only spark a renewed interest in sports but also give young people a safe place to congregate and nurture their skills. Sports field reconstruction ought to be a primary focus. We won't be able to get young people back into sports if there aren't safe and appropriate locations for them to play (Coach).*

**Legal Measures and Integration of Sports in Other Community Activities.** Another person suggested combining health programs with sports. The community can encourage active lives and address health issues exacerbated by galamsey by implementing community-based sports health projects and linking sports involvement to health advantages. This claim is supported by the following excerpts:

*It is critical to emphasize the beneficial effects of sports on youth well-being. Expanding community initiatives to include small incentives to encourage involvement in sports and school attendance in addition to training and education is a good idea. We can encourage more people to lead active lifestyles and deter young people from participating in risky activities like mining by promoting the health advantages of sports and implementing community health programs linked to athletic activities. Creating sports health programs that are rooted in the community can improve the health and overall well-being of youth while also making illegal mining seem less appealing.*

Another participant claims:

*Integrating education into engaging and rewarding sports activities is crucial. Ensuring access to basic sports equipment and providing scholarships to talented student-athletes may prove advantageous. We may persuade youngsters to think twice before turning to illegal mining as their only alternative if we show them that there are bright futures in athletics, both through academic endeavours and professional avenues. To*

*apply this strategy in schools efficiently, more structural and financial assistance is needed. It is essential to combine educational opportunities with engaging sports programs.*

It has been recommended that policies limiting galamsey activities be developed and implemented with the participation of local government and traditional leaders. The implementation of regulations to protect land and encourage sports for the sake of community development may serve to mitigate the negative effects. This perspective is supported by the following assertion:

*As part of an all-encompassing plan for community development, we ought to involve local government and traditional leaders in creating laws protecting our territory and advancing sports. It is imperative to establish municipal rules restricting galamsey operations and to strictly enforce these prohibitions. Starting with policy enforcement and awareness-building is essential. To stop more harm, strict legislation should be passed and people should be made aware of the consequences of galamsey (Community Elder).*

#### **4. Discussion**

The findings of this study are consistent with a larger pattern seen in recent research on the detrimental effects of illicit mining on public health and community infrastructure. Illegal mining effects on sporting facilities, resources, and organizations are consistent with the results of Boadi et al. (2021), who also emphasized the severe harm that galamsey has caused to communal grounds and amenities. Their findings showed that the loss of physical spaces harms the community's social cohesion and health in the long run by hindering organized sports and reducing possibilities for physical activity in general. The present study's findings about the effects of Galamsey operations on sports grounds are consistent with those of Owusu & Sarkodie (2022), who observed that mining operations have resulted in the relocation of leisure areas and sports fields in rural communities. Engagement in the community and physical activity are directly impacted by this relocation.

Furthermore, the state of the school sports fields, as reported in this study, is in line with the conclusions of Mensah et al. (2020), who highlights how illegal activities limit schools' capacity to offer extracurricular programs, which has an impact on students' overall development. The current study shows a lack of such activities in the investigated towns, underlining the need for a more coordinated government and community response, even though some studies imply that local governments have undertaken to reconstruct or rehabilitate these sporting places (Asare & Frempong, 2023). The study's participants noted that Galamsey exacerbates the neglect of sports resources, which lowers funding and lowers community interest in preserving sporting goods. This supports the findings of Akoto et al. (2022), who noted comparable drops in funding for community sports in mining regions, an area where the emphasis moves economically toward extractive industries. But this study also highlights how the social and economic changes brought on by illegal mining disregard even unaffected sports areas. On the other hand, Akoto et al. point out that these spaces can be restored with the right intervention, indicating a possible direction that the current research investigates in the suggested mitigation techniques.

The findings of Arthur et al. (2020), who identified comparable health difficulties among community residents living near mining sites, are consistent with the detrimental impacts on athletes' physical and mental health, including respiratory and skin diseases. According to the current study, athletes, particularly young ones, show signs of exhaustion and diminished physical ability as a result of exposure to environmental pollutants, which is consistent with long-standing public health concerns (Amoah & Agyeman, 2023). Although participants in this study reported experiencing anxiety, despair, and a loss of identity, these findings are consistent with those of Dako-Gyeke et al. (2021), who found that mental health problems are becoming more common, especially among young people living in mining villages. They contend that stress and pessimism are exacerbated by environmental degradation and that this lowers motivation for learning and athletics. This research adds to the conversation by showing that mental exhaustion is linked to health problems as well as the uncertainty that surrounds athletes' futures in competition, a component of the relationship that has not gotten as much emphasis in other studies.

#### **4.1 Practical Implications**

The study's findings imply that interacting with the public through awareness-raising and educational initiatives may be able to mitigate the negative impacts of Galamsey on sports participation. This aligns with the latest suggestions made by Antwi-Boasiako (2022), who suggests incorporating environmental education and sports into community health programs. This strategy lowers the appeal of illicit mining as a source of income while simultaneously promoting physical well-being by linking sports engagement with health advantages, particularly in populations affected by mining. Furthermore, the recommendations made by the participants to enlist the help of role models in reviving community interest in sports are consistent with the research conducted by Acheampong et al. (2023), which found that the presence of accomplished athletes can encourage youth participation in sports even in difficult socioeconomic circumstances.

Fostering a long-lasting culture of sports involvement is one of these techniques' practical consequences; it may help lessen the physical and mental health issues this study identified. Stronger legal action is being called for to protect sporting facilities and limit Galamsey events, which is in line with larger themes in the literature on community-based initiatives. Danso and Appiah (2022) have pointed out that limiting mining near schools and sports facilities through laws is an important first step toward stopping the environmental degradation that jeopardizes community well-being. The suggestion made in this study to incorporate sports into more comprehensive community health initiatives is also consistent with the findings of Osei (2021), who made the case that sports can effectively promote public health, especially when they are linked to government-funded community development activities.

As noted by Asiedu et al. (2023), communities can improve social cohesion and public health outcomes by providing financial and infrastructural support for the restoration of sporting facilities. To support sustainable community development through sports, this research highlights the significance of a cooperative strategy combining traditional leaders, local government, and the commercial sector. The report also clarifies the complicated effects of illicit mining (Galamsey) on community health and sports participation, highlighting the urgent need for legislative changes, policy changes, and community involvement to solve these issues. Practically speaking, this means that a concentrated effort on community-based initiatives, health promotion, and infrastructure might bring back sports as a major part of community life, bringing hope and better health to impacted communities.

#### **4.2 Strengths of this study**

This research topic relates to an important problem in Ghana, where illicit mining has a big influence on a lot of different areas, like sports and community well-being. Interest from communities, policymakers, and stakeholders may be piqued by this relevance. The research provides a thorough understanding of the subject by addressing a variety of topics, including participation in sports, health consequences, community involvement, and sustainable development. The findings may have an impact on community initiatives and legislative modifications intended to mitigate illegal mining's detrimental effects on sports and public health, encouraging more awareness and action. By thoroughly examining individual experiences and community viewpoints, qualitative research methods provide insightful information that quantitative approaches can miss.

#### **4.3 Weaknesses of this study**

Acquiring trustworthy information about the entire scope of the effects of illicit mining proved difficult, especially in isolated locations where these operations take place. Due to participant reluctance to divulge unfavourable experiences relating to illicit mining, bias was introduced into the process of gathering qualitative data. Field research in impacted areas takes a lot of time, money, and logistical assistance, all of which are hard to come by. It was difficult to identify particular elements and establish causal correlations in this study because of the complicated and diverse relationships between illicit mining, sports engagement, and community well-being.

#### **4.4 Suggestions**

To improve the quality and reliability of the data, future research must use a mixed-methods strategy that combines qualitative interviews with quantitative surveys. Working together with neighbourhood NGOs and community organizations is essential to gathering information, making data collection easier, and developing relationships with participants, all of which help to increase the data's accuracy. The Ghanaian government should create specific and useful guidelines to help community members address the effects of galamsey on sports and overall well-being based on the research findings. In addition, holding forums or seminars in the community to explore the implications of illicit mining and share the research findings will support neighbourhood-based efforts toward sustainable development.

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**Ethics approval and consent to participants:** Human rights were protected by taking into consideration the following: the right to informed consent, the right to participate in the study, the right to be free from harm of any kind, and the right to confidentiality and secrecy. Those who voluntarily participated in the study were asked to provide formal consent by signing a familiar agreement form. This document included the research questions for the study as well as other phrases that were used to protect the privacy, confidentiality, and identity of the participants. As advised by specialized literature, particular consideration was given to the asymmetric informants, interviewer relationships, and possible scenarios of participants' susceptibility in public.

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