



A Review of Policies Governing Artisanal and Small-Scale Gold Mining to Identify Opportunities and Challenges in Tanzania

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ABSTRACT

The mineral sector has become increasingly significant in mineral-rich African countries, including Tanzania. Particularly, artisan and small-scale gold mining segment which contributes to Tanzania economy about 1.6% to the nation's GDP. However of its economy contribution, the artisanal and small scale gold mining activities are accompanied by some widespread criticisms and often viewed as unsustainable, environmentally damaging, and inefficient. This study aim at reviewing the policies governing artisanal and small scale gold mining activities to explore their opportunities and challenges associated with emerging critics, whereby a qualitative research approach were employed and secondary data drawn from a wide range of sources were collected. Thematic analyses were used to examine the data, with the primary objective of evaluating the opportunities and challenges associated with enforcing policies governing artisanal and small-scale mining (ASGM) operations. And also, the Tanzania Mining Policy (2019) and The Mining Act [CAP. 123 R.E. 2019] were reviewed to provide deeper insights into the regulatory framework shaping ASGM operations in Tanzania. The findings showed that the policies governing small scale mining in Tanzania has several advantages with respects to social, economic and environmental sustainability, but less awareness of regulatory implementers results to poor perceptions on regulations governing small scale mining activities as the source of criticism in small scale gold mining operations. This paper recommends Tanzania government to have a coordinate approaches that involve policymakers, industry practitioners, local communities, and other stakeholders to establish an enabling environment for sustainable small-scale gold mining.

Key Words: *Policies, Minerals & Artisan and Small Scale Mining*

1.0 Introduction

Small-scale gold mining sector is a vital component of Tanzania's economy, contributing roughly 1.6% to the nation's GDP (World Bank, 2021). This sector also play a role of job security by offers jobs to around 1.5 million individuals (Tomassi, 2024) and boosting local communities development through various economic activities, including trade and service delivery (Geita Gold Mine, 2020). Despite of the economic significantly of small scale gold mining in Tanzania, several studies explore its environmental and community health impacts. The study by (Kinyondo and Huggins 2021) revealed that small scale gold mining operations drive to environmental degradation, particularly deforestation, soil erosion, and water pollution due to cleaning of vast areas of forests to access gold deposits and resulted to habitat destruction and loss of biodiversity. And also the use of mercury in gold extraction contaminates rivers and soil, posing a serious threat to aquatic life and human health affecting the entire community health (Keane *et al.*, 2023)

To respond these impact of small scale gold mining, since 1990s Tanzania has initiated efforts to reshape its regulatory frameworks including policies concerning with mineral operations within the country (Tomassi, 2024). Despite of the efforts initiated there is notable gap remaining with the established policies in addressing environmental and community health issues, for example the Mining policy established in 2009 was designed to promote effective extraction and enhance mining achievements by improving the quality of the Tanzania's refined and processed mineral resources growth (Mdee, 2015; URT, 2009). The Mining Act [CAP.123 R.E. 2019], it emphasizing in regulating the laws relating to prospecting for minerals, mining, processing and dealing in minerals with minimal concerns of the environmental and community health issues. The mentioned gap is evident that, the current welfares for small-scale gold miners and their surrounding communities have not significantly improved. And this need urgent review and studies so as to provide insights that can be incorporated in policies to address community health and environment concerns. Therefore, this paper aims to review existing policies governing small scale operation so as to explore its opportunities and challenge in fostering sustainable mining operations while safe guard environment and community.

2.0 Methodology

This study were based on secondary data collection drawn from a wide range of sources, including books, journal articles, conference proceedings, government reports, and policy documents. A qualitative research approach was employed, with a particular focus on explaining and characterizing the collected data. Thematic analysis was used to examine the data, with the primary objective of evaluating the opportunities and challenges associated with enforcing policies governing artisanal and small-scale mining (ASGM) operations. Additionally, three case studies on the implementation of ASGM policies in Tanzania were analyzed to enhance understanding of the sector's regulatory challenges and opportunities. Furthermore, the Tanzania Mining Policy (2019) and The Mining Act [CAP. 123 R.E. 2019] were reviewed to provide deeper insights into the regulatory framework shaping ASGM operations in Tanzania.

3.0 Results and Discussion

3.1 Selected Case Studies to give overview of four key areas of ASGM policy in Tanzania to explore its opportunities and challenges

Case study 1: Land Allocation Policies for Small scale Gold Mining

The Tanzanian Parliament promulgated a mining law in 2010 that stipulated measures to allocate land areas specifically for small scale mining. Recognizing the need for the government to expand significantly upon previous efforts to regulate ASGM, this legislative measure signals a potentially momentous development designed to help to reduce conflict between small--scale miners and larger companies, provide a more equitable playing field for accessing mining permits, and create a more stable foundation for local environmental planning and livelihood planning. Improving security of tenure is widely recognized by researchers as a key strategy to improve small scale mining technologies and labour practices. Although most of the mineral exploitation and exploration rights in Tanzania historically have been allocated to large and medium sized companies, the new mining law was established with the recognition that poorer artisanal and small scale miners in Tanzania should be included more centrally in the process of allocating land and mining rights. To make this policy effective, concerted efforts are needed to conduct geological investigations in small-scale mining areas, to ensure appropriate resource viability, and to ensure that poorer mining groups are not marginalized by being confined to too narrow a field of designated permit areas.

Case study 2: Policies for Capacity Building

Tanzania government has initiated policies and programs to strengthen institutional capacities to conduct outreach and training activities with artisanal and small scale mining groups (licensed as well as informal/unlicensed workers) and improve environmental management, technology upgrade programs, and regional regulatory implementation. Zonal Mines Offices are responsible for conducting extension services, but limited funds have hampered their capacity to do so. Future programs to support local participation and planning in mining communities (with support from international donors) could be key point to improving local capacity building and environmental regulation. Past programs to reduce mercury use and address health and safety were most effective when developed through strong collaboration and partnership at the local level, for instance, with organizations such as the Mwanza Regional Miners Association and the Tanzania Women Miners Association. "Top down" policies and interventions have tended to be ineffective; local ownership and "bottom up" approaches to project design are vital to achieve positive and sustainable results.

Case study 3: Microfinance policies

The government initiated steps in 2011 to develop microfinance services tailored for the artisanal and small scale mining sector. While past attempts to create public private sector linkages have been limited, recent efforts to encourage banks, companies, and microfinance institutions to assist mineworkers could yield numerous opportunities for enhancing technological capacities across the sector. As artisanal and small scale miners often lack collateral and do not qualify for credit under existing commercial banking channels, a number of strategies drawn up by the government are vital (discussed later in this report). Ongoing debate about reform processes in Tanzania highlight the need for attention to financial empowerment strategies to support marginalized groups.

3.1.1 Lesson learn from case studies

The effectiveness of policies governing artisan and small gold mining operations is evident in three case studies. Both highlight the significance of policies in guiding sustainable small mining operations such as allocating specific areas for small-scale miners reduces conflicts with larger companies and ensures fair access to mining permits, Partnerships with local organizations, such as miners' associations, enhance the

effectiveness of training and environmental management program and Tailored microfinance services address the lack of access to credit for small scale miners, enabling technological upgrades and improved operations.

3.2 Opportunities of Policies Governing Artisanal and Small-Scale Gold Mining in Tanzania

The policies governing artisanal and small-scale gold mining (ASGM) in Tanzania present several opportunities for enhancing the sector's economic contribution. One key opportunity is formalization, which allows miners to obtain legal status through licensing. This provides them with protection from exploitation, access to financial support, and the ability to sell gold legally in both local and international markets. The formalization process also encourages responsible mining practices, leading to improved working conditions and compliance with safety regulations (Kinyondo and Huggins, 2020).

According (Maganga, 2023) another opportunity is financial inclusion and support. The Tanzanian government, through its policies, has created a framework that enables ASGM operators to access financial services, including loans and grants. Financial institutions are increasingly willing to support small-scale miners who operate legally. This access to capital helps miners acquire better technology, improve productivity, and reduce the environmental impact of their activities. Additionally, formalized miners benefit from value addition initiatives such as gold refining and jewelry production, increasing their earnings.

Mangasini et al (2025) noted that Policy frameworks offer opportunities for improved governance and revenue collection. By integrating ASGM into the formal economy, the government can collect taxes and royalties, increasing national revenue. These funds can be reinvested in infrastructure, education, and health services, benefiting the broader community. Additionally, improved governance reduces illegal mining activities and conflicts over land use, fostering a more stable and organized mining sector in Tanzania.

3.3 Challenges encountered by Policies Governing Artisanal and Small-Scale Gold Mining in Tanzania

Despite the opportunities presented by policies governing artisanal and small-scale gold mining (ASGM) in Tanzania, several challenges hinder their effective implementation.

The firstly one challenge is the complex and costly licensing process; many small-scale miners find it difficult to obtain legal permits due to bureaucratic red tape, high application fees, and long approval periods. As a result, a significant number of miners continue to operate illegally, missing out on the benefits of formalization and government support (Kinyondo and Huggins, 2019).

According to Poignant (2023) another challenge is limited access to financial resources, Even though policies encourage financial inclusion, many miners still struggle to secure loans and investment due to their lack of collateral and formal business records. Without financial support, miners are unable to invest in modern equipment, leading to inefficient and environmentally harmful mining practices. Additionally, financial institutions are often hesitant to lend to small-scale miners due to the perceived risks associated with the sector.

An additional challenge is environmental degradation and poor enforcement of regulations pose serious concerns. While policies promote sustainable mining practices, enforcement remains weak due to limited resources and corruption. Many miners continue to use mercury and other harmful chemicals, leading to soil, water, and air pollution. Deforestation and land degradation caused by unregulated mining further threaten ecosystems and biodiversity, undermining conservation efforts in mining areas (Kessey and Arko, 2013).

As well as Lenga, (2024) reported that conflicts over land and resource ownership also challenge the effectiveness of ASGM policies. Many small-scale miners operate in areas where land tenure is unclear or disputed, leading to frequent conflicts with large-scale mining companies, local communities, and conservation authorities. Weak enforcement of land laws and unclear demarcation of mining zones exacerbate tensions, sometimes resulting in forced evictions and violence.

Also poor market access and price exploitation noted as one of challenge by , While the government has set up mineral trading centers to promote fair pricing, many miners still sell their gold through informal channels due to factors such as high taxation and lack of awareness. This exposes them to exploitation by middlemen who offer lower prices. Additionally, policies restricting the export of raw gold limit the bargaining power of small-scale miners in international markets (Mangasini et al 2025).

Lastly, Rwiza et al (2023) noted that inadequate technical and safety training remains a major obstacle. Many artisanal miners lack formal education and training on efficient mining techniques, health and safety standards, and environmental conservation. The absence of widespread capacity-building programs means that miners continue to use outdated and dangerous mining methods, leading to frequent accidents, health risks, and reduced productivity. Addressing these challenges requires stronger policy enforcement, simplified licensing procedures, increased financial support, and enhanced training programs for ASGM operators in Tanzania.

4.0 Conclusion and Recommendation

4.1 Conclusion

In conclusion, the sustainable development of the ASGM sector in Tanzania is constrained by multiple challenges, including regulatory inefficiencies, environmental degradation, and limited access to financial and technical resources. However, by strengthening formalization processes, enhancing capacity-building initiatives, promoting environmentally responsible mining practices, improving market structures, fostering community participation, and leveraging technological advancements, Tanzania will establish a robust policy framework. Such an approach would not only optimize the sector's economic contributions but also ensure environmental sustainability and socio-economic benefits for local communities.

4.2 Recommendation

This review underscores the necessity of addressing the identified challenges while leveraging the existing opportunities to unlock the full potential of the ASGM sector in Tanzania. Achieving this requires a coordinated approach involving policymakers, industry practitioners, local communities, and other stakeholders to establish an enabling environment for sustainable small-scale gold mining. By implementing these recommendations, Tanzania can promote a more equitable, economically resilient, and environmentally sustainable ASGM sector, ultimately contributing to long-term socio-economic development and responsible mineral resource management.

5.0 References

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