





A Gendered Perspective on Formalization & Taxation of the Artisanal & Small-Scale Mining Sector in Kenya

Lessons from Taita Taveta

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Authors

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Executive Summary

There has been growing recognition that formalization of artisanal mining could be beneficial to more than 140,000 people working in the sector and 800,000 people indirectly, as well as to the Kenyan government. The process of formalization has mainly focused on development of legal and regulatory frameworks to grant artisanal and small-scale miners' legal access to minerals, but experts have argued that formalization should extend beyond legalization to include other interventions such as training on mining techniques, access to credit and markets, and formation of cooperatives. Formalization, when done right, could address challenges unique to the sector (such as the negative socioeconomic, health and environmental impacts of Artisanal and Small-scale Mining (ASM) activities), and tap into the sector's economic potential for improved welfare and reduced poverty levels. Formalization could also unlock the potential of the sector as a source of revenue for government.

The Kenyan government took the first step toward formalization of the ASM sector seven years ago by enacting the Mining Act, 2016 which was anchored on the Mining and Minerals Policy of 2016. This legal framework granted artisanal mining in Kenya a legal status for the first time. The Mining Act created Artisanal Mining Committees (AMC) through which artisanal miners participate in issuance, renewal, and revocation of artisanal mining permits. The government also developed an Artisanal Mining Strategy (2021-2025) whose objective is professionalization and transformation of artisanal mining operations into small-scale mining operations. This strategy is premised on the belief that an enabling legal and regulatory environment coupled with technical improvements can bring increased value in the sector. Some of the immediate interventions under the strategy are, setting up a specialized ASM unit, delineation and land access facilitation, and issuance of mining and dealings permits.

However, despite the elaborate legal and regulatory framework miners continue to operate informally. The government has not issued any permits to artisanal miners while small-scale miners have been affected by a moratorium on issuance of mining licenses. The moratorium, according to the government, was necessary to allow the government to conduct an airborne geological survey on the country's mineral deposits. Only nine of the targeted eighteen AMCs have been established. The National government attributes this to delays by counties in proposing nominees. Since the AMCs have not been operationalized, they cannot issue artisanal mining permits. In addition to this, the online cadastre system through which the applications are to be made has been offline, and thus applications for mining rights cannot be submitted.

An observed gap in the mining legal framework is a disconnect between the definition of artisanal mining operations in the Mining Act, 2016 and actual artisanal mining operations. The Mining Act defines artisanal mining as "traditional and customary mining operations using traditional or customary ways and means", however, despite artisanal miners undertaking their mining activities in a small area, they have already adopted modern equipment (such as compressors and explosives), which contradicts the definition of artisanal mining in the mining policy. This has created a conflict issuance of mining permits because as per the definition in the mining act, use of modern equipment disqualifies an artisanal from receiving a mining permit. The Taita Taveta Sustainable Mining Action Plan, covering the period from 2021 to 2025, recognizes that good mining practices, adoption of efficient technology, community mobilization and formalization would support sustainable artisanal and small-scale mining in Taita Taveta. This clearly justifies an alternative definition of artisanal mining that does not preclude artisanal miners from use of modern equipment and technology.

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The Kenyan government took the first step toward formalization of the ASM sector seven years ago by enacting the Mining Act, 2016 which was anchored on the Mining and Minerals Policy of 2016. This legal framework granted artisanal mining in Kenya a legal status for the first time. Kenya's mining policy recognizes that women have increasingly been involved in mining but are marginalized. Women are marginalized because they have limited access to and control over resources, productive assets, decision making, access to information and technology and have limited entrepreneurial skills. Women also often use simple mining processing methods that expose them to risk of injury and hazardous materials. One of the guiding principles of Kenya's mining policy is respect for socio-cultural values and safeguarding access to justice, gender equity and inclusiveness. The policy has an objective of providing a framework for gender mainstreaming and eradication of child labour in the sector. This is to be attained through the development and implementation of a community liaison framework to ensure that women, youths, and marginalized groups are involved in the decision-making process and ensure that there is equitable access to ownership, employment, technology, capital, local content, and value addition opportunities.

Whereas one of the core objectives of formalization of the ASM sector in Kenya was to increase participation of women in mining activities and to address historical dominance of men in the sector, this has not been achieved. Women make up a significant proportion of the ASM sector workforce in Kenya. However, cultural definition of gender roles has affected women's participation in some activities and pushed them to lesser productive activities within the ASM sector. There is also evidence of discrimination of women that limits their access to land and allocation of mining rights and consequently their participation in the sector is limited. While formalization is a plausible solution to challenges that women face in the sector. It comes with various requirements that women may not be able to meet due to lack of information, education, technology, and resources. As a result, formalization may end up reinforcing the already prevalent gender inequities in the sector. Rather than an exclusive focus on formalization per se, women need support in acquiring licenses, owning land, value addition, access to buyers, access to equipment, technology, and trainings, and in addressing gender stereotypes.

Formalization has also not achieved its objective of raising revenue for the government as was envisaged. The main source of revenue from the ASM sector in Kenya is at the point of export and from permits and licences. In Taita Taveta, ASMs are also required to pay for a business permit, consent for mining and a prospecting license. The national government also charges a uniform royalty rate of 5 percent on gemstones' exports. Despite having these policies, only low value gemstones are declared to the government, there is little value addition (including cutting and polishing of gemstones), and a significant proportion of the minerals are smuggled out of the country leading to revenue losses. Smuggling is further exacerbated by the fact that the customs scanners at the airports cannot detect gemstones since they are not metallic, and customs officials do not have the technical know-how to identify gems. In addition, lack of access to formal markets has forced ASMs to sell their gemstones to middlemen, who in most cases do not follow the legal channels in exporting them. The government had the intention of supporting value addition and linking miners to buyers through the Voi Gemstones Value Addition Centre, but several years after its completion, the government is yet to commission the centre.

Moving forward, the following recommendations are key to addressing the gaps:

- i. Development of value addition centres akin to Voi Gemstones Value Centre to support value addition, link miners to official buyers and be a point of contact between miners and the government. Such centres can facilitate provision of extension services such as geological data, inspection of mines, equipment and machinery for identification, value addition and inscription of gemstone, training, and support access to credit. Such centres can also double up export centres to make it easier for ASMs to export their gemstones through formal channels to seal revenue leakages through smuggling.
- ii. The national government to issue guidelines on issuance of permits to artisanal miners and lift the blanket moratorium on issuance of licenses to small-scale miners.
- iii. Amendment of the Mining Act, 2016 and Mining (License and Permit) Regulations, 2017 to redefine artisanal mining to reflect the current reality that artisanal miners are increasingly using modern equipment and to ease some of licensing requirements for the ASM sector.
- iv. Fast track implementation of the Artisanal Mining Strategy and interventions proposed there including setting up a specialized ASM unit, delineation of mining zones for artisanal miners, and issuance of mining and dealings permits through the Artisanal Mining Committees (AMCs).
- v. The national government to expedite enactment of royalties sharing framework to pave way for transfer county share of royalties.

1. Introduction

1.1 Background

While the ASM sector is a source of income for many low-income households, it also has negative socioeconomic, health and environmental impacts that are due, at least in part, to the lack of formalization, meaning a lack of legal recognition and incorporation into the regulatory and tax regime of a country. Among the most troubling aspects of current practices in the sector are the death of miners due to poor mining structures, illness due to a lack of proper protective equipment, land degradation, and water, air, and noise pollution¹. In addition to this, the sector has also been associated with child labour as well as Sexual and Gender Based Violence (SGBV) against women.

These challenges are often exacerbated by the fact that because they operate outside of the legal framework, miners are not afforded sufficient legal protection and are unable to organize effectively to protect their interests². The impacts of informality also extend to mine owners, who are unable to access credit facilities for lack of legal documentation. This implies that while some mine owners might want to improve the miners' working conditions on their site, they lack the financial resources to enact the necessary changes including purchase of machines and tools³. Additionally, artisanal miners lack access to additional financing that would allow them to pursue non-mining economic opportunities to improve their livelihood. Further, the rampant tax evasion in the sector- driven by the lack of proper registration of mining enterprises- leads to the loss of government revenue that would otherwise have been raised through taxation⁴.

Calls for formalization have often cited the sector's economic, social, and fiscal potential. Formalization, when done right, could address challenges unique to the sector, tap unto the sector's economic potential for improved welfare and reduce poverty levels.

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In light of these challenges, there has been growing recognition over the last decade that formalization of artisanal mining could be beneficial to the people working in the industry, as well as the government. The process of formalization has mainly focused on development of legal and regulatory frameworks to grant artisanal and small-scale miners' legal access to minerals, but some researchers have argued that formalization should extend beyond legalization to include other interventions such as training on mining techniques, access to credit and markets, formation of cooperatives as well as reducing environmental impacts of mining activities⁵. Calls for formalization have often cited the sector's economic, social, and fiscal potential. Formalization, when done right, could address challenges unique to the sector, tap unto the sector's economic potential for improved welfare and reduce poverty levels. Formalization could also unlock the potential of the sector as a source of revenue for government⁶.

Nevertheless, efforts at formalization have often yielded disappointing results. Formalization has sometimes failed to address inequalities in the sector, or even worsened them, resulting in skewed sharing of the costs and benefits of artisanal mining?. Researchers have attributed such outcomes to the fact that formalization is often paired with other mining policies that on balance favour the state and the interest of large-scale miners and cooperatives at the expense of small-scale miners⁸. Employing the case of the emeralds sector in Zambia, Siwale and Siwale (2017) conclude that the Zambian government used formalization

to push artisanal miners to areas with low economic viability and that the country's regulatory framework overall disproportionately benefits large-scale mining⁹. Besides, even when governments pursue equalizing policies, they may lack the ability to enforce these policies in the Artisanal Small-scale Mining (ASM) sector, such that it remains informal. Formalization has also failed to address a dearth of women in leadership positions in the ASM sector¹⁰.- For example, research from Migori County in Kenya shows that women continue to be underrepresented in cooperatives' membership, decision-making and leadership, even where some efforts at formalization have been made¹¹.

Kenya's informal ASM sector also suffered from the challenges discussed above in addition to inadequate geo-data, poor extraction and processing techniques, and environmental degradation. In 2016, the Kenyan government took steps toward formalization by enacting the Mining Act, 2016 anchored on the Mining and Minerals Policy of 2016. This legal framework introduced significant changes including granting the ASM sector in Kenya a legal status and institutionalizing its governance. The Mining Act created Artisanal Mining Committees (AMC) which provided a platform for small-scale miners to contribute to decisions on granting, renewal, and revocation of artisanal mining permits and air their grievances. The law also introduced artisanal mining permits that would be administered by the County Office of Mining and County Artisanal Mining Committees.

To support implementation of the Mining and Minerals Policy, the Mining Act, 2016 and the attendant regulations the government developed an Artisanal Mining Strategy (2021-2025) whose objective is professionalization and transformation of artisanal mining operations into small-scale mining operations. This strategy is premised on the belief that an enabling legal and regulatory environment coupled with technical improvements can bring increased value in the sector. An immediate intervention under the strategy is setting up a specialized ASM unit, delineation and land access, issuance of mining and dealings permits¹². However, progress has been slow as only nine ASM committees established which the National government attributes to delays by counties in proposing nominees¹³.

While government's intention may have been to formalize the ASM sector through this legal framework, uncertainties with respect to the legal definition of artisanal and small-scale mining (and as a result the applicable permits and licenses) have hampered progress. In addition, the license application process is highly bureaucratic and expensive, and the reporting requirements on sales once a license has been issued are not tailored to the realities of small-scale miners. These challenges have deterred effective formalization of ASM sector as they disenfranchise artisanal and small-scale miners. The situation is even worse for women because they earn less from the sector, have lower representation in cooperatives compared to men and have more domestic responsibilities.

Generally, while Kenya's mining policy is progressive in that it recognizes the rights of communities, gives the ASM sector a legal status and advocates for sustainable environment practices, it still fails to address several important issues in the sector. The policy does not address gender issues that have been prevalent in the sector. Another area of weakness in the framework is that it does not sufficiently address the need for a balance between paying taxes and receiving certain services from the government: while there has been great emphasis on improving regulation of the sector, the policies are not explicit on the fiscal regime for mining. Other than the fact that mining rights holders are obligated to pay taxes and provide evidence of the same periodically, there is little thought put into the question of how policy can create a non-zero-sum outcome for miners and government where taxes are paid willingly in exchange for government services. Such outcomes are central to tackling informality both in mining and in other sectors. Findings from a case of formalization through cooperatives in Migori County indicate that small-scale miners understand that formalization would come with taxation but, in return, they expected access to government services including geo-data to locate mineral reserves¹⁴.

From the foregoing, the 2016 framework needs further reforms, more so in the licensing process. Six years after its passage, miners continue to run their operations without the necessary licenses and permits even in cases where they have formed cooperatives and are represented in Artisanal Mining Committees (AMCs). While anecdotal evidence indicates that there are both technical and political reasons for these failures, there is no comprehensive analysis of the formation and implementation of the 2016 policy that can answer key questions: Why has formalization not been achieved despite having an elaborate legal framework? How would a better policy framework address the real challenges in the sector and facilitate implementation? To what extent can gender be more explicitly incorporated into the policy framework to generate better results and more buy-in from the sector? And can formalization of the ASM sector enhance revenue collection for the government and is it beneficial for miners to motivate tax compliance? These are the key questions we hoped to address through this study. Besides, it would be important to explore whether formalization should move beyond having a policy and legal framework to including targeted incentives for ASM players including financial support, training, and health and safety to create an environment in which miners can operate more effectively. Further, women face unique challenges in the sector, therefore, it would be crucial to understand the kind of support women would need from the government to improve their participation in the sector and whether tailored incentives for women would need from the government to improve their participation in the sector and whether tailored incentives for women would encourage compliance and more revenue for the government.



1.2 Study Objectives

The overall objective of the study was to explore formalization and taxation of Kenya's ASM sector from a gender perspective. The specific objectives of the study were:

- i) To conduct a critical analysis of existing ASM legal and regulatory policy framework and the mining tax regime in Kenya
- ii) To analyse why the 2016 framework has not achieved its policy goals and what changes to the framework could facilitate faster formalization.
- iii) To explore the gendered and non-gendered impacts of formalization of ASM sector
- iv) To explore the extent to which incentives (including financial support for ASMs can enhance tax compliance for increased domestic revenue mobilization.

2. Methodology

The study employed a mixed methods approach combining a review of secondary sources and primary data from Key Informant Interviews (KIIs). The study conducted a desk review of ASM regulatory and institutional framework in Kenya and global best-practices in formalization and taxation of the ASM sector. The study reviewed the cases of Mongolia, Zambia, and Tanzania to draw on approaches that work and those that do not work in formalizing and taxing the sector. Mongolia is one of the few countries that has made significant strides in transforming the ASM sector to highly formalized, regulated and a significant source of livelihood. Tanzania on its part has made progress in formalizing its ASM sector including institutionalization of the sector through issuance of Primary Mining Licenses to ASM cooperatives and associations. Zambia, on the hand, has not been very successful in formalizing artisanal and small-scale mining activities. A review of these country cases provided good case studies of successes and failures.

The research reviewed gemstones mining in Taita Taveta County to contextualize operationalization of the Section 95 and 93 of the Mining Act, 2016 that provides for facilitation of formation of artisanal association groups or cooperatives and granting of licenses to mining artisanal association groups. Taita Taveta is resource rich county with substantial deposits of gemstones and other precious stones such as tsavorite, tanzanite, rubies, and tourmalines. However, artisanal miners in the county continue to wallow in poverty as they are forced to sell their gemstones to middlemen at low prices. This is partly explained by their lack of mining permits and licenses, however, under the emblem of the Taita Taveta Artisanal Miners Association they have been pushing for reforms including issuance of a mining license and completion of Voi Gemstone Value Addition Centre that would avail better equipment for the miners and guarantee better access to export markets. Whereas the Taita Taveta Artisanal Miners Association was able to secure a mining license, the value addition Center lies idle after its completion despite its potential to improve the livelihoods for the artisanal miners in addition to generating revenue for the government. Therefore, Taita Taveta forms a good case study as ASM sector formalization has been slow, the government has not been able to effectively tax the sector and gender inequalities continue to be prevalent in the sector. Further, as Mugo, Ondieki-Mwaura and Omolo (2021) report, requirement for mining permits has a positive impact on participation of women in ASM sector, but the process of obtaining the license is a major hindrance to their participation in the sector¹⁵. Therefore, the research assessed how the formalization initiatives of the ASM activities in Taita Taveta has impacted participation of women in the sector.

KIIs supplemented information from the desk review and were administered in Taita Taveta. The respondents were artisanal miners, representatives from the Taita Taveta Artisanal Miners Association and Dawida Tuweta Artisanal Miners Association as well as government officials both county and national level. As Rop (2014) documents, formalization of the ASM sector in Taita Taveta can potentially improve representation of the government, improve access to credit and help miners leverage economies of scale. The government stands to gain from formalization as it would result to more organized cooperatives and which would in turn lead to better monitoring of revenues from sale of minerals, distribution, and control of mineral resources. Therefore, Taita Taveta provided a good case study of how formalization can be beneficial for the government and artisanal miners as well as its potential in addressing gender inequalities prevalent in the sector.

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3. Kenya ASM Regulatory Framework

Kenya's ASM sector is regulated through the Mining and Minerals Policy, 2016 and the Mining Act, 2016. There are other regulations within the sector that focus on specific aspects. These are; Mining (Dealing in Minerals) Regulations, 2017; Mining (License and Permit) Regulations, 2017; Mining (State Participation) Regulations, 2017; Mining (Use of Local Goods and Services) Regulations, 2017; Mining (Employment and Training) Regulations, 2017; Mining (Use of Assets) Regulations, 2017 and Mining (Prescription of Core Drilling Charges) Regulations, 2013.

3.1 Mining Policy

The Mining and Minerals Policy of 2016 was developed with the overall goal being to establish the framework, principles, and strategies for mining operations within the country. The policy underpins the subsequent Mining Act, 2016. Under this policy, the government committed to developing a framework for the formalization of ASM operations. As part of this commitment, the government would work towards removing barriers to ASM activities such as the lack of finances, lack of recognized mineral rights and the inadequate technologies. This would be attained through several means, among them being appropriate licensing of the miners and provision with market information, development of a new minerals licensing system to offer mining rights to the miners and facilitate credit access through services such as pooled equipment leasing arrangements and government supported concessional lending schemes. The policy establishes the national institutional framework and as the directorates and specialized agencies in charge of all mining operations. These include the Directorate of Mines, Directorate of Geological Surveys, Directorate of Mineral Promotion and Value Addition, Mineral Certification Laboratory and Geo-Data Bank, Mineral Audit Agency, National Mining Corporation National Mining Institute and Mineral Rights Board (Appendix I). It was noted- by both government officials and the miners, that the Mining Policy has been beneficial as it has focused on improved livelihoods to the miners and increasing the benefits accrued to the government (through increased revenues).

3.2 Mining Act, 2016

The Mining Act 2016 recognizes artisanal mining operations' and defines their regulatory framework. Interviewed government officials heralded the current mining policy as one of the of most progressive policies but its impact has not been felt yet due to slow implementation. Interviewed artisanal miners were aware of its different components such as the legal requirements of the miners, the committees established by the act and the differentiation national and county governments' roles including the sharing of royalties. This was achieved through trainings on the Mining Policy and the Act offered by the government in collaboration with other partners such as Association for Women in Energy and Extractives in Kenya (AWEIK). They expressed optimism as the main mining association were represented in the Artisanal Mining Committee which also brought together national and county governments officials. The formal recognition of the ASM sector has made it less derogatory. Prior to the Act, the miners were locally referred to as 'mazururas', loosely translated to mean those who roam around, which discouraged the people from engaging in mining activities due to the prevalent social perception.

The definitions and criteria of determining small scale prospecting and mining operations are provided in the Second Schedule of the Mining Act, 2016. Small scale prospecting operations are classified as prospecting operations that are done in an area not exceeding twentyfive contiguous blocks while small scale mining operations are classified as operations done in an area not exceeding two contiguous blocks. The schedule also provides alternative definitions for the operations where smallscale operations are defined as prospecting or mining operations that do not make use of specialized prospecting, mechanized mining technologies and chemicals such as mercury, cyanide, or explosives. Operations that do not have expenditures exceeding an amount specified by the Cabinet Secretary are also considered to be small scale operations.

For small scale operations, three types of mineral rights can be issued; a reconnaissance permit – which confers the holder non-exclusive rights to conduct mineral reconnaissance in the area specified in the permit, a prospecting permit, and a mining permit. The prospecting permit applicant is to provide their full name, nationality, address, mineral(s) for which the permit is applied, the area of the permit (not exceeding twenty-five contiguous blocks), the prospecting operations to be done and the

¹ Artisanal mining operations are defined as mining operations that use traditional or customary ways and means in their operations.



experience and financial resources that the applicant has to carry out the operations. The prospecting permit does not confer the holder with any rights to dispose the minerals obtained without approval by the Cabinet Secretary. The permit issued is valid for a maximum of five years and is renewable for one more term.

The mining permit is provided for an area not exceeding two contiguous blocks and shall be valid for a maximum of five years and is renewable for a period not exceeding five years or the remaining life of the mine, depending on which is shorter. The holder is required to comply to the mining operations plan approved by the Cabinet Secretary, adopt the necessary measured to ensure that the mining area environment is protected and restored, make submissions to the Cabinet Secretary on the quarterly return on the development of the mine and production of minerals ,comply with their record keeping obligations, avoid use of chemicals such as cyanide and mercury, dump any waste products in the manner established in the permit and make the necessary payments of royalties, fees, mining taxes and charges.

The act allows for the Cabinet Secretary to set up county offices of the ministry and in turn designate a representative of the Director of Mines as the head of the county office. The officer is to oversee granting, renewing, and revoking of artisanal mining permits, monitor their activities, and submit reports on the ASM activities being undertaken within the county. He/ she is also tasked with facilitating of the formation of artisanal association groups and cooperative as well as providing training facilities to ensure that there are effective and efficient mining operations.

However, despite there being an elaborate legal and regulatory framework miners continue to operate informally, and the government has not issued any permits to artisanal miners while small-scale miners have been affected by a moratorium on issuance of mining licenses. The moratorium, according to the government, was necessary to allow the government to conduct an airborne geological survey on the country's mineral deposits. The AMCs are yet to be operationalized for lack of guidelines, and therefore cannot undertake their mandate. In addition to this, the online cadastre system through which small-scale mining licenses applications are to be made has been offline, and thus applications for mining rights cannot be submitted or processed.

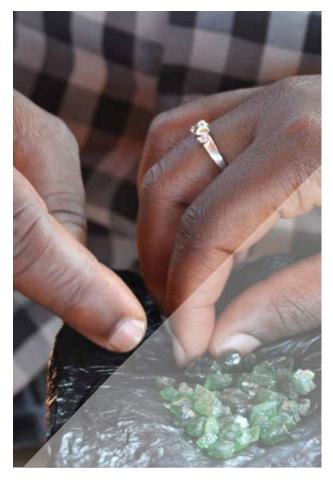
In every county there is to be an Artisanal Mining Committee (AMC) comprising of a representative of the Governor (chairperson), representative of the Director of Mines (secretary), three persons elected by the artisanal miner's association in the county that are not public officers, a representative of the inspectorate division of the Ministry, a representative of the National Environment Management Authority (NEMA) and a representative of the county land board. The committee is to play an advisory role to the representative of the Director of Miners in the granting, renewal, and revocation of the artisanal mining permits. The Taita Taveta's Artisanal Mining Committee (AMC) is already in place and gazetted but is yet to issue mining permits for lack of clarity on application procedural processes and is awaiting guidelines from the national government on issuance of permits.

The artisanal mining permits are only to be issued to Kenyan citizens above the age of 18 years and may be the member of an ASM cooperative association or group. The permit applicant is required to submit their name(s), nationality, address, name of the registered group, cooperative or association, the minerals to be mined, the area that the permit is sought for and the signed landowner's consent if the land is not designated as an ASM activities area. Once the permit is approved, it is valid for three years and can be renewed for one more term and the holder can apply to convert it to a small-scale permit.

Through awareness created on the act and its requirements different government and non-government bv stakeholders in the sector, there has been significant strides in the formalization process as many of the miners have formed and joined registered groups, Community Based Organizations (CBOs) and associations. There are two mining associations registered in Taita Taveta County; the Taita Taveta Artisanal Miners Association and the Dawida Taweta Artisanal Miners Association (DATWEMA) whose membership is drawn from CBOs. However, lack of mining permits and licences has derailed the formalization process. To start off with the mining undertakings, one requires a prospecting permit to carry out the search for mineral deposits. Once you identify a mining area based on the presence of minerals, one can then apply for a Mining License. Historically, the miners had to go to Nairobi to acquire the licenses but under the Mining Act, this is to be done by the county committee. Even though this would be of great benefit to the miners due to the reduced costs as travel to Nairobi would not be necessary, no permits have been issued at the county level as the AMC has not yet been operationalized.

In Taita Taveta County, there is an established Directorate of Mining the Department of Land, Energy and Mining and is made up of county mining officer- the mine inspectors and gemologists. The mine inspectors' primary role is to ensure that there is safety in mining practices while the gemmologists are primarily to be based at the Gem Centre to provide their expertise in mineral identification and value addition. While there is a general view on the fact that there has been government support to the miners, the extent of this support remains a debated issue. The main form of government support has been through the trainings held in partnership with other organizations and through the establishment of the Voi Gemstone Value Addition Centre. The facilities at the centre include an administration block to offer services such as sealing, a gemology laboratory, lapidary laboratory, jewellery making section, security safe, exhibition hall, dealers booth, banking facility and restaurant. The Centre provides trainings on gemology, identification of stones and value addition to the miners and provides affordable value addition services such as cutting and polishing to the miners as they can sell the cut stones or use them to make products such as jewellery for sale at a higher price than they would have sold the uncut gems. The centre is also to hold market days where the miners can sell their gemstones at competitive prices to certified dealers. However, the Centre's full operationalization remains a mirage as it has not been commissioned officially.

A pertinent gap in the regulation of the sector is lack of guiding framework on collaboration between the national government and county government. Both levels of government seemed to be operating independently yet they served the same sector. This is exacerbated by the fact that the Mining Policy and Act, 2016 do not define clear roles for the two levels of government. The lack of collaboration has meant that there is little progress in formalizing the sector. Under the mining act, the acquisition of permits by the miners is to be done at the county level through the county committee with representation from the county government, national government, and artisanal miners. Despite the committee being in place and having held their first meeting in 2022, there has been no significant achievement as the committee has not started issuing the permits in part due to the lack of guidelines from the national government to direct its operations. Some of the miners felt neglected by the government as their officials and representatives are rarely present at the mines to provide support in form geological expertise to the miners. As a result, their presence on mine sites is associated with occurrences of accidents and mine closures.





There are several gaps identified in the Mining Act. First, there is ambiguity in ASM definition making it difficult to distinguish artisanal mining and small-scale mining based on the mining act. This is because the artisanal miners, despite undertaking their mining activities in a small area, are having to rely on machinery such as compressors acquired through hire (including from the county government) or donations to access the minerals. Second, some of the requirements are stringent and too complex for artisanal and small-scale miners, an example of this is the requirement of a feasibility study for the ASM gemstone activities and work plans. While the feasibility study is a necessary requirement for industrial minerals, it should not be the case for the ASM gemstone miners since an assessment would be better suited. The work plans developed by the miners are also not always followed as their activities are often constrained by factors such as the lack of financial resources. The Environmental Impact Assessment is also too costly for the miners. Third, online system used for licensing application is not user friendly. Some of the miners lack the technical knowhow to use computers while others are not literate in reading and writing. The system should be made user friendly through interventions such as providing translation into the local languages to make it easier for the miners to use. Fourth, there are fraudulent officials that grant favours for their own gain through corruption and bribery. Despite the existence of a moratorium on issuance of licenses, there have been instances of individuals acquiring the licenses through back doors.

Fifth, framework guiding the acquisition of consents is weak which curtails dispute resolution efforts. There have been numerous disputes arising due to consents driven by two major factor; lack of county officials' involvement and illiteracy. It is challenging for the county officials to solve the disputes arising as they are not involved in the agreement process, which often involves illiterate landowners who are taken advantage of as they do not have the capacity to bargain for better terms. Sixth, poor regulation of the mining trade has resulted in the prevalence of smuggling. Most of the foreigners purchasing the gemstones within the county are not registered dealers and therefore cannot be easily tracked to ensure their compliance with export and tax requirements. Seventh, most of the mines are abandoned after completion of activities without rehabilitation by their owners. There is a large burden to the county to conduct rehabilitation as there are mines abandoned before the implementation of the Mining Act with some dating back to 2010. Eighth, some of the requirements such as the feasibility studies are not necessary for ASM. They are however important in large scale activities and industrial minerals mining. Fifth, enforcement of the safety measures is difficult as some of the miners ignore expert advice such as on risky mines resulting in mining site collapses.

In addition, artisanal miners had changed the way they mine through adoption of modern equipment which contradicts the definition of artisanal mining in the mining policy. This then created a conflict on the issuance of mining permits and licenses as spelt out in the act. The County Government of Taita Taveta in collaboration with other partners developed the Taita Taveta Sustainable Mining Action Plan covering the 2021 to 2025 to tap its economic potential and address the challenges. The strategy recognizes that good mining practices, adoption of efficient technology, community mobilization and formalization would support sustainable artisanal and small-scale mining in Taita Taveta¹⁶.

4. ASM Formalization

Between 70 and 80 percent of small-scale mining activities are informal. Apart from excluding miners from legal protection, informality propagates negative socio-economic, environmental and health impacts which then keeps miners in vicious cycle of poverty. This has then motivated increased efforts towards formalization of the ASM sector across the world. Formalization entails bringing informal income-generating activities into the formal economy through policy, legal and regulatory frameworks. It also entails establishing monitoring and enforcement frameworks geared towards supporting sector players in meeting their legal obligations, including tax compliance. Gender equity has also been at the centre of formalization efforts, for example, the African Mining Vision provisions for gender equity and women empowerment by incorporating gender equity in mining policies, laws, and regulations¹⁸.

Formalization is beneficial for both miners and governments. From the perspective of a miner formalization promises various prospects such as access to credit facilities, technology, and markets. Formalization would also contribute to improved work conditions including decent wages and improved compliance with Occupational Health Standards (OHS), eradicate child labour and support harmonization of wages earned by men and women (Hilson 2002). Furthermore, formalization would create opportunities for education and training through linkages between governments and local and international organizations. Similarly, formalization is also beneficial to governments by allowing easy detection of illegal mining activities, broaden revenue base (would permit better service delivery to mining communities), facilitate issuance of secure land and mineral rights, support provision of extension services (such as geological information) and support environmentally friendly mining. Despite these potential benefits of formalization, it has not been without challenges. These challenges include ill-suited legal frameworks (primarily focusing on registration and licensing), complex laws and regulations that inhibit compliance, lack of access to credit and markets, and inadequate support from government.

The African Mining Vision provisions for gender equity and women empowerment by incorporating gender equity in mining policies, laws, and regulations.



4.1.1 ASM Formalization in Kenya: Progress and Challenges

Part of the objectives of the policy was mainstreaming the activities of the ASM sector and provide a framework for gender mainstreaming in the mining industry. In addition, the policy set to develop a transparent licensing system for efficient allocation of mining rights as well development and implementation of a transparent and competitive fiscal regime. On ASM, the policy provides for formalizing ASM operations to support livelihoods and entrepreneurship by addressing barriers including access to finance, mineral rights, technical capacity gaps and illegal operations. A key strategy in the mining policy was development and implementation of a frameworks, structures and mechanisms that ensure equitable participation, ownership, and decision-making value chains by women, youth, and disadvantaged groups.

One key provision in the Kenya's mining policy and legal framework is ASM formalization through issuance of artisanal mining permits to a person who is a member of an artisanal mining cooperative association or groups. A county office according to Section 93 of the Act should facilitate formation of artisanal association groups or cooperatives. Therefore, it is important to understand whether cooperatives have in any way facilitated formalization of the ASM sector and specific challenges that have hindered formalization.

Findings from Migori County elucidate that the licensing process is complex for many cooperatives. The required documentation, such as mining knowledge and capital and tax compliance records, is burdensome for artisanal and small miners who for a long time operated informally. In addition, the reporting requirements after acquisition of a license are gruesome for ASM sector players; upon acquisition of a license, the license holder is legally required to begin mining operation within 90 days and provide quarterly reports. Notwithstanding, a mining license/ permit expires on 31st December regardless of the date of issue. Such stringent requirements work against artisanal and small-scale miners and in some cases push them back to informality. Similarly, Mugo et al. (2021) assessed the impact of mining legal framework on women participation employing in Taita Taveta and found that mining permit requirement has a positive influence on women participation, however, the bureaucratic nature of the process dampens women participation. They recommend establishment of field offices to issue mining licenses and permits and streamlining the application process with a view to reduce the existing bureaucratic procedures¹⁹.

Government officials noted that group applications for licensing are more prevalent than individual applications as they are more beneficial. The main advantage for group formation is the fact that it allows for pooling of resources, especially financial resources. This therefore lightens the financial burden as everyone contributes towards offsetting the costs. In addition to this, groups are easily identified and in turn invited to trainings being conducted within the county. Interviewees were quick to note the online cadastre system through which small-scale miners apply for mining permits and miners apply for dealer's license is not user friendly for most miners and this has been compounded by high illiteracy levels. As a result of this, some of the miners are under the impression that the complexities of the system are aimed at locking them out in favour of large-scale miners. To make it easier for the miners, the Voi Gemstones Centre have an open-door policy for the miners, where they can make inquiries and government officials assist miners to make their applications. Apart from the complexity of the online system, both national and county government officials noted that some of required

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in Taita Taveta and found that mining permit requirement has a positive influence on women participation, however, the bureaucratic nature of the process dampens women participation.

documentations such as the Environmental Impact Assessment were punitive to artisanal miners to which they recommended joint assessments for adjustment mining sites. Further, irregularities in giving mining consents by landowners were identified as a main source of conflicts in the county. The county officials noted that where there are geo-coordinates conflicts were easy to resolve and they eliminate cases of double consent on the same land. These then creates a need for greater collaboration between the county government and national government as the former is greatly involved in issuance of consents (in the case of communally owned land) and the latter issues licenses and permits.

4.2 ASM Formalization and Gender

The United Nations in its Sustainable Development Goals identifies gender equality as a key intervention in reducing poverty, promoting economic growth, and improving welfare. In addition, the United Nations recognizes that women play a critical role in supporting their families and communities economically, and therefore access to decent employment is an important component of women empowerment. The UN further indicates that Africa's mining sector presents an opportunity for equitable growth for governments and communities. United Nations Economic Commission for Africa (UNECA) and the Africa Union estimates that there more than eight million artisanal and small-scale miners in the continent where between 40 and 50 percent of the workforce are women²⁰.

The World Bank estimates that women make-up more than 50 percent of the workforce in some countries. However, there is growing evidence that women have not benefited fully from their participation in the sector because their participation is mainly at the bottom of the ASM value chain. In addition, women hardly participate in management decision-making. On the hand, increased participation of women in the sector can potentially affect them negatively due to the already existing inequalities in division of labour and cultural practices²¹. A joint report by UNECA, UN Women, and Africa Minerals Development Centre indicates that women lack access to capital from financial institutions, lack access to relevant technology and equipment, face extreme difficulties in acquiring mining licenses, and lack access to geological information. Similarly, a report by Deloitte and Women in Mining in South Africa identified three key challenges that women

in mining face; culture, legislation, and failure to retain skills that women possess.

One of the core objectives of formalization of the ASM sector is to increase participation of women in mining activities and to address historical dominance of men in the sector. Cultural definition of gender roles may have affected women's participation in some activities and pushed them to lesser productive activities within the ASM sector. Notwithstanding, there is evidence of discrimination of women that limits their access to land and allocation of mining rights and consequently their participation in the sector is limited²². Many actors in the sector have therefore, singled-out formalization as a plausible solution to challenges that women face in the sector. However, formalization comes with various requirements that women may not be able to meet due to lack of information, education, technology, and resources. Therefore, formalization may end up reinforcing the already prevalent gender inequities in the sector. Further, Hilson et al. (2018) argue that Africa's Mining Vision of integrating ASM activities in the national economy could have unintended consequence of further marginalizing vulnerable groups, including women. They therefore call for a clear understanding of the sector's dynamics in formalizing ASM sector and supporting women²³.

Buss et al (2019) in their study demonstrate that governments should consider gender dynamics in the ASM sector in the design of formalization policies. Their research establishes that mining work is gendered and therefore there are women-specific barriers to formalizing



the sector. For example, when licensing procedures are highly bureaucratic, require literacy and are legalistic, women find it hard to acquire mining licenses because they control less resources, have higher illiteracy levels and find it hard to interact with government officials who are predominantly male. In addition, the application process take time, yet women have other household responsibilities including childcare and, in many cases, must get permission from male-heads of the family to venture into mining²⁴. Further, policy makers in many cases do not view women as real miners in the sector with their contribution mostly perceived as digging as opposed to mining even in cases where mining is an important source of livelihood for their families. As a result, women are often left out of list of miners submitted to government officials meaning that they are excluded from taxation, but they also miss out on government services targeting miners. Consequently, women hardly hold mining licenses and as result they miss out on other aspects of formalization including training and cooperative memberships. Consequently women, are underrepresented in cooperatives and mining associations. For example, in Uganda members of mining association compromise of miners who bring an asset that can either be land, mine, equipment, a license or mining expertise and because women hardly possess these assets they are delineated²⁵. These women specific barriers provide a case for gendered formalization policies.

In Kenya, small scale miners exploit small and dispersed minerals deposits scattered in different part of the country. Small scale mining provides an employment opportunity for local communities, most especially women. However, the sector was historically poorly regulated and, in most cases, not taxed²⁶. With the enactment of the Mining Act, 2016, artisanal and small-scale miners were accorded an opportunity to legalize and organize their activities. The Mining and Minerals Policy recognizes that there exist gender issues within the ASM sector. More specifically, it acknowledges that there is a disadvantage to women regarding access to and control over resources, productive assets, their involvement in the decision-making process, their access to information technology and have limited knowledge of enterprise development regarding mining activities.

Women are also left out and overlooked in the implementation of initiatives and development programs that are directed at mining sector transformation. In some counties, such as Migori, Taita Taveta and Turkana, most of mining takes place on communal land which is controlled by gender-biased and patriarchal power structures, which impede participation of women in the sector. Coupled with the predominant gender roles, women are pushed to above-ground low-risk and low-return activities. Despite the above challenges, UN Women reports that women in fact participate in Kenya's mining sector value chain but are often caught in the vicious cycle of low skills, lack of capital, low productivity, and low income. Therefore, affirmative action is needed to push women out of this vicious cycle supported by a conducive policy environment at both levels of government.

Kenya's mining policy recognized that women and children have increasingly been involved in the mining sector, especially in ASM and that women are marginalized within the sector because they have limited access to and control over resources, productive assets, decision making, access to information and technology and have limited entrepreneurial skills. Further, the policy indicates that women and children often use simple mining processing methods that expose then to risk of injury and hazardous materials. One of the guiding principles of Kenya's mining policy is respect for socio cultural values and safeguarding access to justice, gender equity and inclusiveness. The policy has an objective of providing a framework for gender mainstreaming and eradication of child labour in the sector. This is to be attained through the development and implementation of a community liaison framework to ensure that women, youths, and marginalized groups are involved in the decision-making process and ensure that there is equitable access to ownership, employment, technology, capital, local content and value addition opportunities.

The Mining Act, 2016 is largely silent on strategy 12 of the Mining Policy which seeks to mainstream gender and human rights issues in the mining sector. The Act does not explicitly mention women but contain some provisions with implications for women. First, the Act legally recognizes ASMs, therefore since women make up a large proportion of workforce in the sector, they are recognized legally through issuance of licenses and permits. The Act also safeguards ASM operations from displacement by large mining corporations by "

UN Women reports that women in fact participate in Kenya's mining sector value chain but are often caught in the vicious cycle of low skills, lack of capital, low productivity, and low income. designating exclusive areas for ASM operations. Despite the Mining Act, 2016 not being explicit in mentioning women, it does make provisions that have a direct impact on women. Given that a large percentage of the sector is women, the formalization of the sector implies that women in ASM will no longer be considered as illegal miners. Additionally, women will have legal protection from displacement as the Cabinet Secretary has the rights to designate areas for ASM activities. The health and safety regulations developed will also ensure that women are not adversely affected by the unsafe mining conditions that are often associated with the ASM sector. Through the financial and technical trainings, women will be empowered to be more productive within the ASM sector.

The Artisanal Mining Strategy (2021-2025) is more deliberate in addressing challenges that women face in the sector, but it requires more deliberate actions to support its implementation. The policy rightfully indicates that lack of technical and operational capacity as well as income disparity between men and women limits gender mainstreaming in the sector. Though women make up a large share of the workforce, the strategy reports that very few women occupy decision making and leadership roles. Similarly, informality and cultural barriers increases vulnerabilities of women in the sector including access and control of economic resources (such as land, capital, and technology). The strategy therefore proposes various interventions including; elimination of barriers and creation of opportunities to support women's participation in the sector, sensitization in gender mainstreaming and provision of technical support to gender-based groups, and creation of a grant scheme to support formalization.

In Taita Taveta, women in mining were historically defined by stereotypes and were regarded as a bad omen and were not allowed into the mining sites and shafts. In some instances, there were men who would not work in the same mine with women. However, the perception of women in mining is gradually shifting with women not only forming their own mining groups and owning mines, but also being involved in the leadership of the groups and associations. In the Taita Taveta Artisanal Miners Association that has the leadership group comprised of 9 members- 6 officials (Chairperson, Vice chairperson, Secretary, Vice Secretary, Treasurer and Vice Treasurer) and 3 committee members- 4 of the 9 are women. In DATWEMA Association which comprises of over 30 members, 2 of the 5 leadership officials are women while 3 slots are occupied by men. Organizations such as the Young Women Christian Association (YWCA) have also provided women with trainings on how to effectively lead their groups which has greatly increased their success rates.

While these are significant strides towards promoting gender equity and equality in the sector, there is still room for improvement. The presence of Gender Considerations in the legal framework is best exemplified by Mongolia that has laws and policies specifically addressing gender issues. The Law on Toxic and Hazardous Chemicals prohibits the employment of pregnant women and breastfeeding mothers if the positions involve toxic and hazardous chemicals²⁷. In 2019, the Mongolian government introduced the Geology, Mining, Petroleum and Heavy Industry Sector Gender Responsive Policy 2019-2026 that aims at gender mainstreaming in the legal frameworks and policies of the sector and specifically ensure that the women have equal access to the sector's benefits and that the labour relations are family friendly. The policy has four major objectives. The first being gender mainstreaming and capacity building, second, the implementation of necessary measures to ensure that the different gender specific needs are addressed at every level of the sector, ensure that the employees have a work life balance as well as ensuring that both men and women are represented at all sectoral levels including the ministry and government offices. Third, ensure implementation of a comprehensive strategy to change the existing gender stereotypes and attitudes that drive gender discrimination and gender-based violence as well as fostering the strategic partnerships and alliances with the right stakeholders to ensure that the policy is successfully implemented²⁸.

Similarly, Rwanda developed a gender strategy for its mining sector whose objective is to support growth of women in the sector, including ownership of mining businesses.



More specifically, the strategy seeks to implement various strategies to assure gender equity in the mining and quarrying sector. Key areas of intervention include ending gender stereotypes and misconceptions on women, gender mainstreaming in companies and cooperatives, career development and capacity building for women in the sector and gender -sensitive work environment.

While there have been attempts to form groups that are exclusively for women in Taita Taveta, there has been little success. First, the groups eventually must include men: this happens in two ways; first, the high intensity physical work such as digging of the shafts and removal of sand which are done by hand as well as inclusion of men as members. Second, given that most of the women do not have alternative sources of income, they lack the financial capacity to make contributions towards the financing of the mining activities. Third, for some, the burden of familial responsibilities becomes overbearing and thus must sacrifice their involvement in the mining activities. One of the respondents who had been a member of a women's mining group stated that despite making contributions and having employed two handy men on site, the group ultimately collapsed as they did not find a financially viable mining area. In addition, mining sites in the county are located very far from homestead thus miners literary camp for extended periods of time at the mining sites. Women who must take care of children and other domestic chores cannot afford to stay away from their homes. Notwithstanding, the mining sites environment is very hostile to women with basic sanitation services (including water and latrines) being totally non-existent. As a result, women groups are forced to hire male workers and take turns in supervising mining activities.

To support women involvement in the sector, the county government has encouraged formation of women groups and as a result nearly all mining sites within Taita Taveta County have women mining groups on site. Women have also received training on all aspects of mining including simplified geology. There has been more than 500 women who have benefited from these trainings. Within the Voi Gem Centre, there are women enrolled in the courses provided such as gemology (the science of identifying gemstones) and lapidary (engraving, cutting, and polishing of gemstones). In partnership with AWEIK, the gem Centre has collaborated with Moyo Gems (meaning gems from the heart)- a gemstones collaboration that works with women artisanal gem miners to track gemstones and connect them to the market through trading partners. One of the groups trained was a widows' group- Sahaulika Wajane - that comprised of 40 women. The group collapsed after they were unable to finance the operations as their monthly contribution requirement was only Ksh.20 per member, which was hardly enough for mining activity. Despite the trainings offered to them, some lack the confidence in their mining capacity and knowledge. As a result, they hold the perception that the male miners will be unscrupulous in their dealings with them, therefore trusting them less.



4.2.1 Challenges facing the Formalization ASM Sector-Lessons from Taita Taveta

a. Non- Gendered challenges

The interviewed key informants highlighted various challenges facing the sector that coincided with the some of the already documented challenges. First, they indicated that artisanal miners lack prospecting machines and Geodata to locate viable mining sites. Currently, prospecting is mainly based on 'luck' and visual inspection. According to the respondents, one of the common ways of prospecting is by surface level identification, where one looks out for a mineral stone lying on surface. If one finds such a stone, it is interpreted by the miners as being indicative of the mineral's presence underneath the surface. This is however very primitive as the stone may have been artificially transferred by forces such as the wind, washed away by the rain or even accidentally dropped. This method of prospecting often results in loss of time and money by the miners. Second, the miners lack adequate capital to start and run the mining operations. This was seen as a major driver of the formation of groups by the for miners to pool resources. In some instances, group contributions do not suffice to cover the expenses incurred such as food, paying of miners, expenses incurred in making follow-ups, blowing of mines, and hiring of excavators. Credit access is equally challenging as the miners are viewed as 'high-risk' borrowers by the banking and credit institutions as there is no guarantee on whether they will obtain the minerals in time to make the loan repayments. This uncertainty also discourages the miners from going to the banks to seek credit facilities as they risk asset repossession by the bank if they default on the loan. The miners stated that while they have seen advertisements by banks on options of the credit facilities available, they are yet to hear of any successful loan acquisitions by miners. Another stated that while they made an application to the Women Enterprise Fund (WEF), they did not receive any feedback and in turn lost hope in acquiring the funding.

Third, there are few training opportunities for the miners. In addition to this, the few training opportunities are often offered to large and well-known groups and have attendance limits of approximately 2 to 3 people per group. Fourth, lack of access to market has resulted in the increased reliance on brokers and foreigners who take advantage of the miners by purchasing the gemstones at throw away prices. The foreigners in most cases do not export the gemstones through formal channels translating to loss of revenue. One government official highlighted a case where a gemstone in an overseas market was identified to have come from Tanzania, yet it had come from Kenya. Fifth, requirements such as the Environmental Impact Assessment (EIA) that are characterized by high

as they lack adequate financial resources. Sixth, the miners do not have the appropriate machinery for use in activities such as prospecting and mining and lack protective gear. The miners also lack access to explosives needed to access deep-seated mineral pockets as well as technical skills to blast minerals. The existing legal and regulatory framework also limits their use especially in artisanal mining and the miners are therefore restricted to use the less efficient rudimentary equipment.

Notwithstanding, lack of a formal education locks out many of the miners from the long-term mining programs and trainings offered at the local universities such as Taita Taveta University. According to one of the respondents, to be a certified blaster, one must undertake a training and pay approximately Ksh 5,000 (\$40). This is expensive for the miners who on most occasions can only afford their necessities. They therefore opt to observe what the certified blasters do, and then replicate it themselves. Undoubtedly, this raises the risk factor associated with blasting and has resulted in the occurrence of serious accidents and increases the chances of accidental blasting of the mineral pockets resulting in cracks and fractures in the gemstones thus making them of lower market value.

b. Gendered challenges

There are several challenges that were identified that and household responsibilities are borne by the women therefore leaving them with little capacity (both in terms of time and money) to engage in mining activities. The distant cannot be away from their homes for extended periods of times or overnight stays as it would be considered as shirking of their familial responsibilities. Second, some of the women have unsupportive partners who discourage their involvement in mining. In addition to this, they may miss out on trainings that are not done locally as their partners do not allow them to go for distant trainings some time. Third, despite their desire to form exclusively female groups, they are ultimately necessitated to include of the activities. Fourth, the lack of water, poor housing hygiene concerns that disproportionately affect women making them more unlikely to reside near the mines.



5. Taxing the ASM Sector

Some researchers have argued that the optimal way to tax the informal sector (such as the ASM sector) is to leverage on the existing tax regimes such income tax and as a result formalize their activities²⁹. However, high administrative costs discourage governments from enforcing income taxes and value added taxes and opt for special taxes such as presumptive taxes in taxing informal businesses³⁰. From theory, taxpayers are likely to be tax compliant if they believe that the government will use the collected revenues in their interests and that citizens voluntarily pay taxes when they believe that the government will provide them with public goods and services. Therefore, mistrust in government due to things like corruption lead to low voluntary tax compliance. Nonetheless, there some evidence suggests that taxing the informal economy is counterproductive owing to high administrative costs and equity concerns based on the argument that low income that informal firms generate therefore, taxing them maybe regressive³¹.

Formalization is a precursor to effective taxation of the ASM sector. Formalization of the ASM sector is not only beneficial to the sector players through improved livelihood, rather it is also an opportunity for the government to collect tax and other revenue including licensing fees. Therefore, an effective taxation of ASM operations is a good solution for operators and governments. ASM miners in many cases operate informally due the cost (time and money) and the bureaucratic nature of licensing processes but are likely to formalize and pay taxes, if they believe they would accrue benefits from the government and donor communities. Employing the case of Zambia, Hilson et al (2020) suggest that taxation has the potential to speed up formalization because it would benefit both the government (through increased revenue) and ASM operators, most of whom desire to work in more structured environments. Nonetheless, taxation of the ASM sector must recognize that participation is the sector is poverty-driven in designing the sector's fiscal policy.

Governments across the world tax the mining sector differently from other sectors because the nature of mining business is different compared to other economic activities³² and the sector's social and environmental impacts are distinct³³. The Centre for Tax Analysis in Developing Countries (TaxDev) reports that mining fiscal regimes are in most cases a combination of income taxes and royalties. Royalties in most countries are payable once production begins while income taxes fall due once a company begins to make profit. As a result, under declaration of a company's value of production or overstatement of costs significantly government revenue from income-based taxes. 66

From theory, taxpayers are likely to be tax compliant if they believe that the government will use the collected revenues in their interests and that citizens voluntarily pay taxes when they believe that the government will provide them with public goods and services.

In calling for reforms in the Zambia's mining fiscal regime, The Centre for Trade Policy and Development proposed the need to have an ASM-specific taxation regime². This proposal was premised on the understanding that lack of differentiation of ASM and large-scale mining operations led to over-taxation of the former. As a result, ASM operators discouraged by the high taxes failed to formalize their operations. The ASM-specific taxation regime would then seek to lower the effective tax rate for the ASM operations in a bid to formalize the sector and raise more revenue.

Action Aid contends that, in the case of the ASM, a good practice would be ensuring that taxation is progressive to support the formalization of the sector by charging progressive royalties based on production volumes, and an environmental tax in case environmental damage occurs without rehabilitation³⁴. Zimbabwe exemplifies this proposal where a 5 percent royalty is charged on gold weighing more than 0.5kg and 1 percent rate on gold less than 0.5kg, therefore artisanal miners pay a lower rate reflecting their lower ability to pay taxes. Similarly, Tanzania scrapped withholding tax and VAT for artisanal miners and instead charges a license fee and a 7 percent tax on the value of sales³⁵.

5.1 Kenya's Mining Fiscal Regime

Kenya's fiscal regime for the mining sector as provided for in Mining Act 2016, requires holders of mineral rights to pay royalties to the state which is generally determined by the gross value of the sales³⁶. The Act gives the Cabinet Secretary for Petroleum and Mining sole powers to determine the rates of royalty payable. The royalty rates on the different minerals are provided in the Mining (Prescription on Royalties on Minerals) Regulations, 2013 and are summarized in Appendix IV. The collected royalties should be distributed between the national government (70 percent), county government where mining takes place (20 percent), and the community (10 percent). The Mining (State Participation) Regulations, 2017 in Section 6 accords the State a ten percent free equity participation (or free carried interest) in the mining operations for every large mining license granted.

The Ninth Schedule of the Income Tax Act, 1974 provides the income taxation framework for the petroleum and mining operations for the licenseesiii, contractorsiv and subcontractors". If there are any inconsistencies on the appropriate taxation mechanisms, the provisions of the Schedule are to prevail above all others³⁷. Part III of the Ninth Schedule of the Income Tax Act, 1974 provides the framework for petroleum operations where the contractors are subject to an income tax rate of thirty percent if it is a resident company and thirty-seven and a half percent if it is a non-resident company. There also exists common taxation rules that apply to both mining and petroleum operations as provided for by Part IV of the schedule. Non-resident subcontractors^{III} are expected to pay a withholding tax of ten percent for a service fee paid by a contractor or ten percent for a service fee paid by a licensee. This provision is however not applicable to subcontractors providing their services through a permanent established in Kenya. The resident withholding tax rates are provided in the Third Schedule (Appendix III).

The main source of revenue from ASM sector for the government is at the point of export and from permits and licences. Miners are also expected to pay for a prospecting license while exporters are expected to pay for a dealer's license and stamp duty. The associated licensing fees are provided in the Mining (Amendment of Third Schedule) Order, 2014³⁸. The Mining Act, 2016 recognizes three levels of mining rights: artisanal mining permits, small-scale mining permits and large-scale mining licenses. The smallscale permits and large-scale mining licenses are issued at the national level through the Kenya Mineral Rights Board (MRB), while the artisanal mining permits are to be issued through the county artisanal mining committees. In Taita Taveta, ASM miners are also required to pay for a business permit, consent for mining and a prospecting license. The fees and taxes levied on mining activities and operations in the county are summarized in Appendix VI based on the Taita Taveta Finance Act, 2020.

For the minerals to be exported, one requires an export permit and a dealer's license. The government charges a uniform royalty rate of 5 percent on gemstones as indicated in Appendix II. Data from the Ministry of Mining shows that 1,350 metric tonnes of gemstones worth USD 5,408.3 thousand (approximately Ksh 703 million) was exported translating to about USD 270 (Ksh 35 million) in revenue for the government. However, the ministry recognizes that high quality gemstones are not readily declared, with exporters mainly declaring low grade low value bulk exports. Sust-ASM estimates that Ksh 5 billion worth of gemstones are exported from Taita Taveta; with ASMs accounting for 50 percent of gemstones produced³⁹. This then translates to estimated annual revenue loss of Ksh 214 million. This confirms that most gemstones that go out of the country do not go through formal export channels leading to loss in revenues. The data also shows that mineral royalties from Taita Taveta were on the rise from Ksh 6.96 million in FY 2016/17 to Ksh 88.30 million in FY 2020/21.

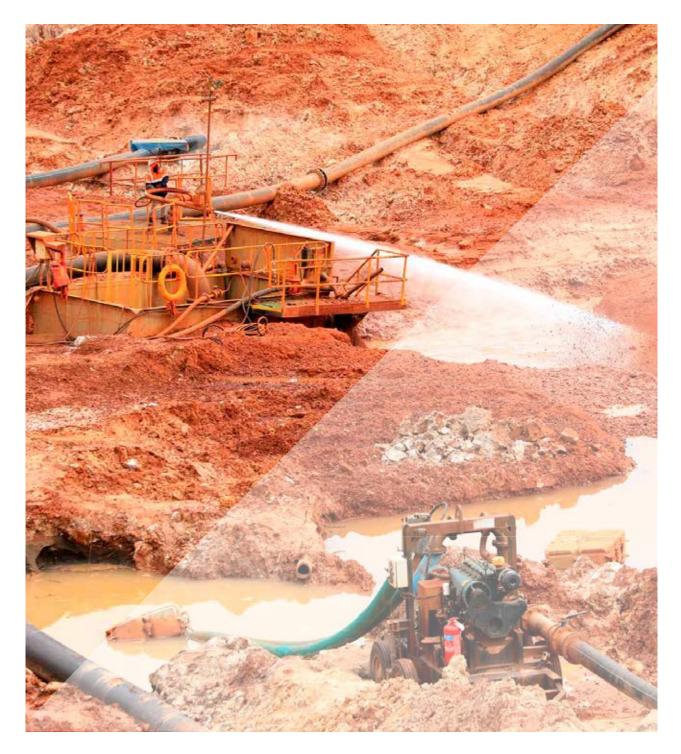
Apart from minerals royalties and mining permits and licence fees, workers in the ASM sector contribute to domestic revenue mobilization through indirect taxes included value added tax (VAT). At the national level, the total value of gemstones is estimated as USD 120 million and on assumption that miners and landowners spend one-half of their mining revenue on vatable goods, it is estimated gemstones miners in Taita Taveta contribute

- Eccensees are defined as individuals who have been assigned a mining right- either a prospecting or extraction right.
- ^{iv} Contractor means a person with whom the Government has concluded a petroleum agreement and includes any successor or assignee of the person.
- Subcontractor means a person supplying services other than a person supplying services as an employee either to a licensee in respect of mining operations undertaken by the licensee or to a contractor in respect to petroleum operations undertaken by the contractor.
- A non-resident subcontractor means a sub-contractor that is not a resident and includes a subcontractor that is a foreign government or foreign government body.

ⁱⁱ https://ctpd.org.zm/wp-content/uploads/2021/07/ARTISANAL-AND-SMALL-SCALE-MINING.pdf

approximately USD 1.6 million (Ksh 208 million) to the tax basket in one year. This estimate is much higher than Ksh 258 million in royalties paid to the national government for the period FY 2016/17 to 2021/22. Therefore, increasing revenue from mining would have a higher contribution to revenues which would be augmented by better regulation of exports⁴⁰.

However, the government has been losing out of revenue as there is a significant proportion of the minerals that are smuggled out of the country. The smuggling is further exacerbated by the fact that the customs scanners at the airports cannot detect gemstones since they are not metallic, and customs officials do not have the technical know-how to identify gems. Further, one of the KIs reported that there are numerous middlemen in the county who undervalue gemstones and, in many cases, do not follow the legal channels in exporting gemstones. In such scenarios the government does not collect any revenue and miners who toil to get gemstones are under compensated. A key challenge faced by the counties, including Taita Taveta County, is that despite the stipulation on sharing of royalties, the counties are yet to receive any royalties. This has imposed constraints on their work as they lack sufficient funds to finance their operations.



6. Incentives for the ASM Sector: A Gendered Perspective

Women make-up a significant proportion of the ASM sector globally. In Taita Taveta, 15 percent of ASM workforce are women. The roles of women in the sector are not strictly mining but are also involved in the supply of food and hauling water. Women's participation is beneficial for improved livelihoods through better management of income and spending. In a family context, women do not receive proportionate income from mining activities compared to men who also control most of the income derived from mining. Therefore, any policy seeking to increase the participation of women in the sector must be gender sensitive. This is particularly important because women join the sector from subsistence farming and women are more likely to spend on their families: thus, supporting women can increase their income and provide an opportunity for the government to expand its tax base. In addition, evidence shows that when women succeed in mining they diversify into other activities and pave wave way for other women to join the sector⁴¹. Further, women face unique challenges in the sector, women occupy less lucrative jobs (due to the perception that mining is a 'male' job), and other familial responsibilities limit women's participation in the ASM sector. Gendered roles in mining activities push women to less important roles in the sector and in most cases, women perform these roles individually. This perhaps maybe explained by the need to balance mining with other household duties. Consequently, women have lesser time to take part in learning activities on mining policies, technical requirements and have lesser less access to networks. Consequently, every formalization attempt must be considering these challenges into account as well as cultural beliefs that disenfranchise women.

To increase women's participation (and as result increase their income and ability to pay tax), there is need to support women in several areas. First, licensing procedures are highly bureaucratic, expensive, and require literacy thereby, making it harder for women compared to men since they are less educated on average making. In addition, women are less likely to own land and have other domestic responsibilities (including caring for children) therefore, they may not have access to capital for a license and have limited time to travel to government offices. Mugo et al (2021) provide evidence that indeed bureaucracies in licensing limit women participation is ASM sector. Buss et al (2019) in their study find that women are not license holders, as result women may end-up being excluded from other formalization requirements including being part of mining cooperatives. A report by the Open Institute reveals that while miners had organized themselves in groups and were keen to formalize their operations to increase their income, accessing mining permits remained a challenge as only one group out of the sampled groups had a mining permit⁴².

A prevalent approach to formalization is through formation of cooperatives yet women are also disadvantaged in the formation of miners' associations and cooperatives. Evidence from Migori, Kenya shows that women have lower representation in cooperative membership as well leadership roles but support from their male-counterparts is crucial in improving their welfare. The sampled women reported difficulties in raising membership fees because they earn lesser than men and were less likely to attend meetings and trainings. Gender stereotypes also limit active participation of women in meetings, therefore there is need for policy interventions to support women's participation in cooperatives and their inclusion in decision-making.

Apart from challenges specific to ASM, women in the sector need support to build their resilience by diversifying their income-generating activities beyond mining. A review of the impact of the COVID-19 pandemic in selected counties in Kenya revealed that the pandemic had far-reaching impacts on livelihoods. The pandemic reduced the number of women in mining sites and in some cases, men forcefully took over activities preserved for women in mining sites. Non-mining activities such a sale of household items, predominantly done by women, were also affected as miners postponed their consumption decisions. These findings are supported by the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) rapid survey. The survey reviewed the impact of the pandemic in Zimbabwe, Peru, and Philippines and found that it caused serious disruptions in the livelihoods of ASM miners. Closure of international borders disrupted the sectors supply chain which had a huge impact since miners depend on regular sales. The pandemic also worsened the already existent gender inequalities, where evidence from Kenya, Uganda and Zimbabwe suggests that women disproportionately loss more jobs during the pandemic. Women also had to commit more time to unpaid work (such as childcare) as schools were closed. Further, while ASM activities were considered essential, supply activities (mostly done by women) were affected by government-imposed restrictions. The Kenya Land Alliance established that women in Kenya resorted to conducting their activities at night which increased their vulnerability to gender-based violence in mining sites⁴⁴.

Below is a discussion on areas for support for women in ASM to support formalization for enhanced domestic resource mobilization.

6.1.1 Licensing

A key hindrance to women's participation in the ASM sector in Taita Taveta and Kenya at large is highly technical and bureaucratic licensing process. Therefore, through tailored ASM policy, the government should streamline the licensing process by reducing fees and time taken to apply for a license. The government should also review the licensing requirements to reduce some technicalities such as previous record of tax compliance because such a requirement may be misplaced for ASM miners whose operations are predominantly informal. Further, while the Mining Act, 2016 prescribes penalties for artisanal miners, including women, who engage in unlicensed mining operations, yet the licensing process remains out of reach for many artisanal miners. The Kenya Land Alliance in their report on economic challenges and opportunities for women in artisanal mining indicates that 90 percent of women they surveyed were not familiar with the licensing process, benefits of operating with a license and the consequences of mining without a license. In addition, a mining permit is attached to a specific mineral and a miner would have to acquire a new permit in the event they were to prospect for a new mineral. Besides, a validity period of 3 years and a renewable period of three years is

too restrictive for women for whom mining is a main source of livelihood. As a result, many women in ASM sector continue to operate informally and without licenses creating the need for the government to sensitize ASM sector players, most especially women, who remain unaware of their legal obligations. One of key provision in the Artisanal Mining Strategy in issuance of mining permits in addition to designating mining zones for artisanal miners. However, this is yet to materialize with only 9 AMCs formed across the country, but they are yet to issue permits.

6.1.2 Cooperatives and Associations

Kenya's mining policy identified cooperative as the best route to formalize the ASM sector. Cooperatives are an avenue for women to invest and run mining businesses but would require leadership skills development for success. Lack of leadership and managerial skills is a key impediment to women's progress in mining. Cooperatives need not to be women-only groups but could include men to make use of their physical and technical skills. As it stands, very few cooperatives are women-led partly attributed to the fact that women have more responsibilities at the household level.

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Lack of leadership and managerial skills is a key impediment to women's progress in mining.

IMPACT implemented a project in Democratic Republic of Congo (DRC), Uganda and Zimbabwe whose objective was to support women working in the ASM sector to reduce challenges they face and to support efforts towards gender equality in the sector. The project supported of two local mining associations in Zimbabwe and improved their formalization (opening of a bank account) to align with the country's legal framework. Capacity building and skills training saw the membership of the associations grow and as result the association became an advocacy vehicle while formalization saw one of the associations open a bank. In Uganda, the project supported formation of cooperatives in line with Uganda's mining law and began license application process. Similarly, the project supported formation of cooperatives in DRC and licensing application. Beyond formation of cooperatives, technical assistance increased women's income and as a result gender income gap in the sector³. Therefore, the government of Kenya in addition to supporting formation of artisanal mining associations could extended technical training to support formalization and increase income that women get from mining activities. Research shows that women's networks are effective in raising awareness on government policy issues. Hence, supporting formation of associations for women in cooperatives would encourage their participation, work conditions and bargaining power, and consequently enhance their economic independence.

Miners in Taita Taveta have made significant strides in formation of associations, with two associations already in place. One of these associations has already acquired a dealer's license which its members can use in exporting their gemstones. At a lower level, members of these associations are part of CBOs including women only CBOs. Women are also part of the leadership, which represents good progress in supporting women in the sector.



6.1.3 Land Rights

6.1.5 Equipment

Land in Kenya is either privately or communally owned. While land ownership is a key determinant of women's participation, the patriarchal cultural practices inhibit land ownership by women. A study in Taita Taveta established that 73 percent of women do not own land in the Kasigau area and 78 percent of women do not own mining sites. Therefore, there is an urgent need to support women towards land ownership and control. While there has been increased focus on women land rights, there is need for a ASM sector specific assessment to map challenges women encounter with a view to develop tailored solutions. The Kenya Land Alliance recommends amendment of the Mining Act, 2016 to reserve land for women artisanal miners. However, the government is yet to reserve areas for artisanal miners.

6.1.4 Technical and Financial Support

Women in mining lack requisite technical skills creating the need for tailored capacity building on processing of minerals, health and safety practices, financial literacy, and entrepreneurial skills. Training would equip women with the necessary technical skills and move them to entrepreneurs by understanding the ASM value chains. Women control less resources at the household level and therefore require financial support. Access to finance in form of loans or grants to purchase equipment, develop sites and finance businesses has the potential to increase the income of women in the ASM sector. This could take the form of a fund for women artisanal miners or targeted programs from government to support women. The government could also leverage on existing fund such as UWEZO and Youth fund to support women. Development agencies and non-state actors could also partner with local banks to offer tailored financial solutions to women.

Women lack proper equipment to facilitate their mining operations because they lack finances and are in many cases are not part of mining associations. Therefore, purchasing equipment for women in mining cooperatives or associations would offer crucial support to improve their livelihood. This could also take the form of processing centre, but such an intervention must consider the local realities to be effective.

6.1.6 Value Addition

Women in artisanal mining in trade unprocessed minerals which fetch a low price in the market. Therefore, value addition centres such as the Voi Gemstones Value Addition Centre could play a critical role when fully operationalized. Partnering with other agencies such as the Micro and Small Enterprises Authority (MSEA) can bolster higher productivity in the sector through enterprise development.

6.1.7 Gender stereotypes

The World Bank in its policy brief on Women and Artisanal and Small-Scale Mining (ASM) reports that enhancing gender equality in the ASM sector is critical to maximizing the socio-economic development and poverty reduction. Understanding of local gender dynamics by key stakeholders including the government, private sector, cooperatives, and civil society is critical to developing better policies, programs, and strategies to formalize the ASM sector. Implicit gender stereotypes influence policy on gender issues and push women to the periphery. Consequently, women have limited influence and report lower participation in decision making. This then creates the need for gender mainstreaming in the design of ASM policy; Kenya's Mining policy identifies gender mainstreaming as one of its key strategies, but progress has been slow. Therefore, an ASM formalization strategy should operationalize gender mainstreaming towards enhancing the role of women in mining.

vii https://impacttransform.org/en/women-associations-gender-equality-drc-uganda-zimbabwe/



7. Conclusion & Recommendations

7.1. Conclusion

World over, various formalization attempts have not yielded the expected results. As the World Bank contends, there is a missing link that has meant that proposed solutions have not yielded the expected results from formalization of the ASM sector. World Bank's preliminary findings identify some possible reasons why formalization interventions have not yielded the expected results including: most projects have been implemented over the short term and do not give time for the interventions to be embraced; most projects have overlooked structural and behavioural barriers to formalization; policy makers have also viewed ASM formalization processes a simple process but it is a complex process; and most interventions overlook demand from miners. The reviewed cases of Mongolia, Tanzania and Zambia provide evidence that formalization processes have had mixed results in different contexts.

Kenya in a bid to better regulate the mining sector developed the Mining and Minerals Policy, 2016 and enacted the Mining Act, 2016. The government aimed to formalize the ASM sector through legal and institutional framework, the implementation of the policy has been relatively slow. Factors such as lack of clarity on licensing process and ambiguous legal definition of artisanal and small-scale mining remains a major obstacle. A review of Kenya's legal and regulatory framework established that there are higher chances of static bureaucracy in licensing process and reporting requirements. A bracket moratorium in issuance of mining licenses has limited progress in formalizing smallscale mining operations. Further, the online cadastre has also been offline for a while meaning that the small-scale miners cannot apply for licenses as provided for the in the law even if the moratorium was lifted.

Despite the Mining Act and the Mining Policy provide guidelines for the mining sector in Kenya, there still exists some gaps that need to be addressed. First, there exists ambiguities in the definition of the scales of operations as well as the licensing guidelines. In the act, the specific level of investment that would be classified as small-scale operations is not defined but is dependent on the Cabinet Secretary's assessment. Additionally, the policy does not clearly specify coverage area for different licenses. Examples of this include the artisanal mining permit that does not have specifications of the area to which it can be assigned, which are also not provided within the definition of artisanal mining in the act. This contrasts with other global practices such as in Mongolia, Tanzania, and Zambia. In Mongolia, the maximum area that can be used for artisanal mining activities and the maximum number of areas for which there shall be artisanal mining are restricted to a maximum of 10 per district in each year. For Zambia, the artisanal mining license can only be issued for an area of a minimum size of 1 cadastre unit and a maximum of 2 cadastre units, while the small-scale mining license is issued for an area between 3-120 cadastre units while in Tanzania, mining activities are classified based on the value of capital investments, there exists the minimum and maximum bands for the value of investments for each classification, unlike the case in the Kenyan mining act, where these amounts are not specified, but are to be determined the Cabinet Secretary. Operations that have capital investments of less than US\$ 100,000 or its equivalent in Tanzanian shillings are small-scale operations and thus eligible for a Primary Mining License (PML) while those with capital investments of between US\$ 100,000 and US\$ 100,000,000 or its equivalent in Tanzanian shillings are medium scale operations and eligible for a Mining License (ML).

Second, they are no clear guidelines on environmental rehabilitation once artisanal and small-scale mining activities are completed, or if the mine is shut down. There however are requirements for large scale operations to obtain an approved environmental impact assessment license, social heritage assessment and environmental management plan and provide a bond or other form of financial security called an environmental protection bond that is sufficient to cover all the costs to be incurred in the implementation of the environmental and rehabilitation obligations of the license holder. Since rehabilitation works are often costintensive, Mongolia developed a cost-efficient method for the rehabilitation of sites that is applicable for the ASM sector. Therefore, to operationalize the recommendation on rehabilitation of abandoned mines as provided for in the Artisanal Mining Strategy.

On revenue from the sector, the government collects royalties at the point export in addition to revenue from permits and licenses. However, minerals from artisanal mining activities are in most cases sold without any value addition therefore, they do not attract high returns. Prevalence of middlemen in the sector also makes it hard for artisanal miners to get a fair price for their minerals. Therefore, lack of direct to access to markets is not only detrimental for the miners but also for the government.

In conclusion, though the Mining Policy was considered beneficial, formalization promises to professionalize and as result formalize the ASM sector, for improved livelihood for miners and enhanced revenue mobilization for the government to increase its revenue. Further, women were also found to be facing unique challenges in the sector, therefore, it would be crucial to provide them with support to allow them to enhance their livelihood and economic stability in the sector. Kenya is still at the formative stages of the formalization process and failure to holistically pursue the formalization process may lead to disappointing results.

7.2 Recommendations

Kenya's mining legal and regulatory framework is progressive but needs further reforms, which include:

- i. Amendment of the Mining Act, 2016 and Mining (License and Permit) Regulations, 2017 to redefine artisanal mining operations and ease some of licensing requirements for artisanal miners.
- ii. The national government in collaboration with the county governments to develop guidelines on issuance of consents with a clear dispute resolution mechanism.
- iii. A simplified and user-friendly online cadastre portal through interventions such as providing translation into the local languages to make it easier for the miners to use.

For a gender-responsive formalization process, the study recommends:

- i) The government and non-state actors to offer continuous trainings to small scale and artisanal miners especially women on different mining aspects such as the identification of different minerals, mining methods, how to find and access the market and record keeping, and value addition. This should extend to the provision of extension services to the ASM sector including but not limited to geological data and inspection of mines.
- ii) Enhance access to credit for ASMs. ASMs have difficulties in accessing credit from the traditional sources of finance including banks and microfinance institutions. It is against this backdrop that the government recommends establishment of cooperative to pool resources. However, these efforts should be augmented by other established funds such Youth Enterprise Fund, Women Enterprise Fund, Uwezo Fund, and National Government Affirmative Action Fund
- iii) Support ASMs in marketing their gemstones: Access to markets remains a key challenge of ASMs who in most cases sell their stones raw, attracting low returns. Apart from ASMs losing, the government also loses revenue when stones are exported in their raw form and in some case outside the formal channels. Therefore, interventions to link miners to markets should be accompanied training on the benefits of selling gemstones through formalized markets. These however must be augmented by access to credit. ASMs are often forced to sell their stones to brokers because they need resources quickly and it may take time to sell a gemstone.
- iV) Increase access to equipment and machinery: Equipment and machinery, especially those that facilitate prospecting should be made available to the miners. The interviewed key informants highlighted various challenges facing the sector including the fact that artisanal miners lack prospecting machines and access to geodata to locate viable mining sites, with visual inspection being a common practice. This approach is inaccurate and leads loss of valuable financial resources. This could be done through purchase of the machinery by the country government.

For enhanced revenue mobilization:

- i) The national government in collaboration with Taita Taveta County government to establish a localized export center. Currently, processing and sealing of minerals for exports is done in Nairobi. The local government is therefore not able to ensure that all the gemstones acquired in the county have been through the right procedure before being exported. This also creates an opportunity for smuggling gemstones. The Ministry of Mining recognizes that high-value gemstones are under-declared leading to revenue leakages. Therefore, we recommend decentralization of sealing of gemstones for export to close these loopholes. For enhanced compliance, this should be complemented by increased support to the ASM sector to improve voluntary compliance.
- ii) Transfer of mineral royalties from the national government to county governments. The national government has been collecting mineral royalties from counties, and yet the county share of these royalties has not been transferred to county governments. As a result, county governments are disincentivized to promote compliance in terms of export through formal channels. Therefore, the national government through the Senate and the National Assembly should expedite enactment of mineral royalties sharing. The sharing of royalties should be implemented to ensure that the county government is adequately funded to allow them to undertake projects such as acquisition of machinery that could be used by the miners through hire agreements.
- iii) The government to ensure traceability of stones mined in Kenya. The government should enforce measures to trace the gemstones mined in Kenya. This could be done by acquiring machinery to inscribe the locally sourced gems. This will help in curbing smuggling and reduce government loss of revenue.

Appendices

Appendix I: Mining Institutional Framework

Directorate/ Specialized Agency	Role
Directorate of Mines	Administration and management of mining policies and laws and auto- mation of exploration and mining licensing
Directorate of Geological Survey	Conducting geological mapping of the whole country to establish the country's mineral wealth and publish geological reports and maps
Directorate of Mineral Promotion and Value Addition	Marketing of investment opportunities, promotion of minerals value addition and provision of technical assistance and extension services on processing of minerals as well as value addition for artisanal and small- scale miners
Directorate of Resource Surveys and Remote Sensing	Collection, storage, analysis, and dissemination of geo-spatial informa- tion on natural resources
Mineral Certification Laboratory and Geo-Data Bank	Analysis, identification, and certification of minerals and undertaking research on mineral analysis techniques
Mineral Audit Agency	Determination of the royalties and taxes payable to the government, ensuring there is no smuggling of minerals and evasion of royalties and taxes and monitoring of mineral exports
National Mining Corporation	Investment arm of the government in the mining sector. It is in charge of investing in large scale mining operations or the purchase of shared in the National Securities Exchange.
National Mining Institute	In charge of capacity building and bridging the skills gap through offering technical trainings and conducting innovative research
Mineral Rights Board	Advisory to the Cabinet Secretary Mining on issued such as Mineral Rights Agreements and areas suitable of artisanal and small-scale mining

Appendix II: Royalties on Minerals

Minerals	Royalty rate
Minerais	(Of gross sale value)
Extracted Minerals	
Diamonds	12%
Rare Earth elements and radioactive minerals	10%
Niobium	10%
Titanium Ore and Zircon	10%
Coal	8%
Gold, Silver, Platinum and other platinoid group minerals	5%
Gemstones	5%
Ores: Metallic ores, iron ores, manganese ore, chromium ore, nickel ore, bauxite	8%
Fluorspar, diatomite, natural carbon dioxide gas	5%
Industrial minerals: gypsum, limestone, silica, sand	1%
Construction materials	2%
Royalty on exports (of gross value to be exported)	
Gold	2%
Industrial Minerals	5%
Raw Gemstones	5%
Value Added Gemstones	1%

Appendix III: General Fees

Fee	s General	Amount (Ksh.)
Pros	pecting and Mining	
a)	Prospecting right or renewal thereof	5,000
b)	Application fee for a mining location	1,000
c)	For registration of a lode claim	1,000
d)	For transfer of a claim	10,000
e)	For renewal of a lode claim	1,000
f)	Application fee (exclusive Prospecting License, Special Prospecting License, Mining lease, Special Mining Lease)	50,000
g)	Annual ground rent for an exclusive prospecting license or special license	2,500 per square kilometre subject to a minimum of 50,000
h)	Penalty for not surrendering an area for an exclusive prospecting license or special license	10,000 per square kilometre
i)	For renewal of an exclusive prospecting license	2,500 per square kilometre subject to a minimum of 50,000
j)	For transfer of an exclusive prospecting license or special license	2,000 per square kilometre subject to a minimum of 100,000
k)	Annual ground rent for a lease per hectare	2,000 per hectare subject to a minimum of 500,000
I)	For renewal of a lease	4,500 per hectare subject to a minimum of 1,000,000
m)	For registration of a document for which no special provision is made	1,000
n)	Fees in lieu of development for each claim or part thereof (not exceeding)	1,000
o)	For copy of a prospecting right, for every half an hour or part thereof of search of register of mining cadastre	1,000
p)	For copy of prospecting right, location certificate or extract from any registered document, or register, for every 100 words or part thereof (stamp duty, Ksh.2)	1,000
q)	For extra carbon copy of or extract from any registered document, or register, for every page	500
r)	On complaint to the commissioner (including hearing fee and order fees)	5,000
s)	For every witness summons	1,000
Min	eral Dealings	
1.	Dealers Permit- (Local) per calendar year	5,000
2.	Dealers License- per calendar year	20,000
3.	Dealers permit- gold (local) per calendar year	5,000
4.	Dealers License- gold (ordinary) per calendar year	20,000
5.	Dealers License- gold (special/exporters) per calendar year	350,000
6.	Dealers License- Diamond (ordinary) per calendar year	20,000
7.	Dealers License-Diamond (special/exporters) per calendar year	350,000
8.	Export permit (processing)	2,000

Appendix IV: Schedule of Mining Fees and Taxes in Taita Taveta

a. Property Taxes

Тах	Amount (Ksh.)
Property Taxes	
Consent for prospecting or mining	
Artisanal	1,000
Small-Scale	2,000
Large Scale	5,000
Leases	
Mining	
1-2,000 acres	20,000
2,001-5,000 acres	50,000
5,001-10,000	100,000
Over 10,000 acres	250,000

b. Application of consent for mining

Description	Unit of Measure	Amount (Ksh.)
Artisanal	Per application	3,000
Small	Per application	40,000
Large	Per application	80,000
Prospecting fees	Per consent	10,000
Renewal fees for prospecting	Per annum	5,000
Compressor charges dry rate	Per day	2,000
Material testing using XRF analyzer	Per sample	500
Single Business Permit artisanal	Per identity card	6,000
Professional Services on Mineral Resource Management	Per claim	1,000
Gemstone testing	Per sample	100
Limestone/fluorspar/magnesite	Per Ton	200
Dolomite	Per Ton	170
Iron Ore	Per Ton	500
Manganese	Per Ton	300
Kaolin clay	Per Ton	250
Copper ore	Per Ton	300
Mica	Per Ton	150
Graphite	Per Ton	200
Nickel	Per Ton	250

c. Single Business Permits- Trade Licenses

Description	Zone A	Zone B	Zone C	Zone D
	(Ksh.)	(Ksh.)	(Ksh.)	(Ksh.)
Large mining or natural resources extraction operation with over 20 employees per site	500,000	500,000	500,000	500,000
Medium Mining or Natural Resources Extraction Operation From 4 to 20 employees per site	30,000	30,000	30,000	30,000
Small Mining or Natural Resources Extraction Operation with 1 up to 3 employees including quarries' and small mining operations	25,000	25,000	25,000	25,000

** Zone A refers to the highly economically viable areas- Voi CBD, Taveta CBD and Mtito Andei Town.

** Zone B refers to the medium economically viable areas- Mwatate CBD and Wundanyi CBD.

** Zone C refers to lower economically viable areas- Njukini, Macknon Road Town, Bura Station, Msharinyi, Dembwa, Landi, Werugha, Mghange Nyika and Maungu.

** Zone D refers to other places within the county other than the mentioned towns in zones A, B and C

Appendix V: Minerals extracted in Taita Taveta

a. Raw Minerals





b. Cut Stone (Value Addition)



Appendix VI: Machinery and Equipment at Voi Gemstone Centre

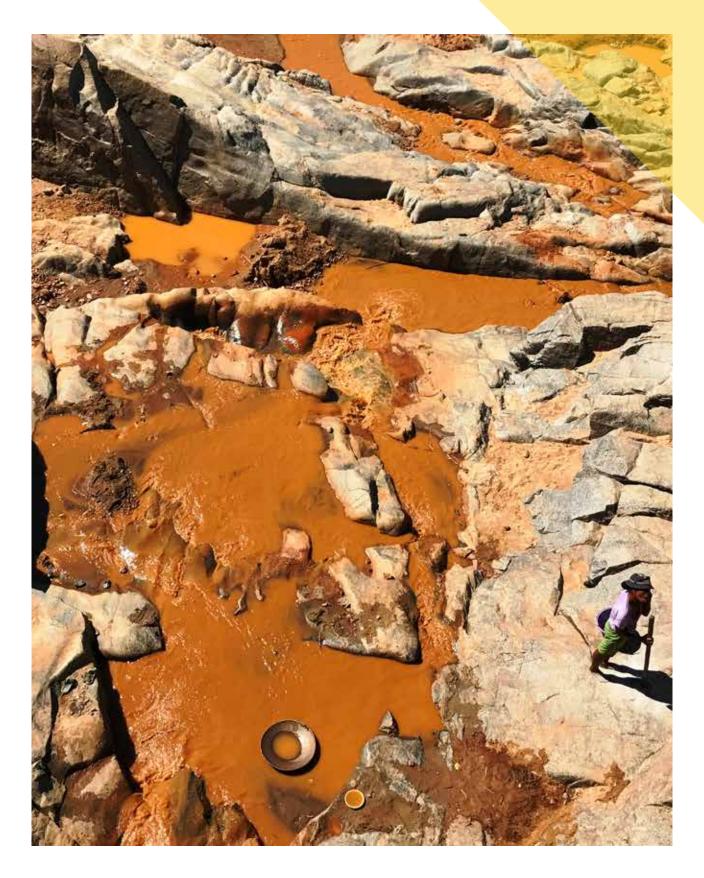




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Jaflo Limited | Block 3 | 106 Brookside Drive | Westlands P. O. Box 25112-00100 Nairobi-Kenya

Contacts

Email: info@taxjusticeafrica.net Tel: +254 728279368] www.taxjusticeafrica.net