



Formalising and enhancing performance of artisanal and small-scale gold mining in Ethiopia

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- The mining sector in Ethiopia remains underdeveloped, constituting less than 1% of the GDP. Artisanal and small-scale mining (ASM) is a significant source of employment for over 1.2 million people, primarily in rural communities and among urban youth.
- However, the sector faces challenges such as lack of proper documentation, legal protection, and government support.
- We conducted a baseline study in collaboration with the Ministry of Mines focused on artisanal and small-scale gold miners in intervention and control *woredas* to understand the challenges and opportunities for the ASM sector in Ethiopia.
- The study finds that most gold miners are individual miners (64%), with limited education and significant migration. Technological challenges persist, with only 33% using modern mining technologies.
- Economic issues include limited access to finance and information on market prices, and institutional gaps lead to inconsistencies in regulations, lack of documentation, and low coordination among government bodies.
- This policy brief includes policy recommendations in the areas of production and technology, markets, legal and institutional matters, and social and environmental issues.

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Policy motivation

The mining sector in Ethiopia, in general, is a part of the economy which has not been harnessed. Large scale and small mining alike are underdeveloped. The share of this industry in GDP remained less than one percent in recent years. Artisanal and small-scale mining (ASM) is a sector where more than 1.2 million rural communities and urban youth are employed (CIRDI-SUMM, 2019). In Ethiopia, as it is in the whole world, artisanal and small-scale mining is an industry of the poor, where many unskilled and semi-skilled labour force find refuge in developing countries. It is an informal engagement which has not been properly studied and recorded.

The informality is manifested by people working without licenses, without legal protection, and without support of the government on the one hand and not complying with regulations on the other. As the sector has large untapped potential to output and employment, the government has given attention to the development and formalisation of this sub-sector through the Ministry of Mines (MoM).

The development and formalisation of this sector requires adequate information about the sector. Currently, available information is inadequate and a scoping study by Keili and Hailu (2021) developed a framework for a more comprehensive survey of the sub-sector. Following the developed framework, the main objective of the study is the identification of the following aspects of the sector: Technical; Legal; Economic; Institutional; Organisational; Environmental; Health and safety; Gender; Child labour; and Community.

Data and methods

In consultation with the Ministry of Mines, a baseline study was conducted on artisanal and small-scale gold miners in two groups of *woredas*: where the first group which was selected by the government as intervention *woredas* and other group was control *woredas*. The *woredas* selected for intervention by government were those with relatively higher potential of production of gold.

The Ministry provided lists of all gold miners, except from regions where there were no lists of individual gold miners. In the list two types of major groups of gold miners were identified: organized artisanal and small-scale gold miners and licensed and unlicensed individual artisanal gold miners.

Once all artisanal and small-scale gold miners are identified, the study made complete enumeration or census of all the organised gold miners and sample of individual miners.

Summary of key findings

Profile of sampled gold miners

Most of the miners (64%) were individual miners while the rest were more organized miners (19% Micro and Small Enterprises (MSE), 5% cooperatives, and 12% Special Small-Scale Miners (SSME). Overall, 76% of miners were males. The majority of individual miners (78%) have a maximum of 8 years of schooling with 52% having a maximum of 6 years of schooling. On average, about one-third of miners migrated from other areas. Overall, gold miners interviewed have about 6.8 years of experience.

The state of artisanal and small-scale gold mining

Technological aspects

- Getting appropriate and affordable technologies is one of the key challenges facing the gold mining sector.
- Most miners use traditional tools for gold mining and processing. Only 33% of sampled gold miners use modern gold mining technologies, of which only 10% of individual miners uses modern technologies and relatively larger proportion of organised miners, mainly SSSM, use modern technologies.
- Limited access to finance and lack of technical skills and business skills are conditions perpetuating the shortcomings in accessing technologies.

Economic aspects

- Effective market transaction of gold requires a mechanism of testing its purity that only few miners possess.
- The problem is more prevalent when the transactions take place in parallel markets, or the major buyers are traders/collectors.
- Miners' decision to sell is affected by the amount of gold, readiness of buyers to make the payments immediately, the closeness in distance of the buyers to the sellers, the higher the price buyers are willing to pay, the wielding of weighing facilities, the readiness to provide advances, and the willingness to lend money to miners.
- Since the Bank does not accept less than 50 grams of gold, it is rational for the sellers to approach other buyers who don't impose such restrictions.
- Lack of information on market price bothers miners.

- The licensing procedures and requirements, the minimum gram threshold set by the bank, and the distance to the nearest bank are factors that influence domestic illicit trade and cross border smuggling of gold.

Institutional aspect

- Miners' attitude and perception on the existing rules and regulations is at variance with that of regulatory bodies.
- Effective collaboration with miners requires reorienting the miners' attitude and perception which may be affected either by changing the regulations or by creating awareness about the existing ones.
- There is no well-organised documentation on proper mineral prospection, exploration, feasibility studies, archive data, etc.
- There are no working manuals and guidelines for handling artisanal and small-scale gold miners.
- Absence of documentation and guidelines leads to low integrated moves among administrative bodies that are responsible in licensing, administrating, and marketing products.
- Requirements for issuing licenses, duration of the validity period of the license, and royalty and income taxes levied are cross-regionally inconsistent.
- Government stakeholders at regional, zonal and *woreda* levels have limited capacity to follow up on the implementation of laws and regulations that govern the mining sectors. There is also limited coordination among concerned government stakeholders (mining bureau, trade bureau, environmental protection bureau, etc.)
- Political assignment of administrative bodies with lack of mining related know-how contributes to low implementation capacity.

Gender aspect

- Women's role in mining sites is mainly in supportive activities such as preparing food, while some take part in washing gold and administrative tasks.
- Perceived existence of gender-based violence (GBV) is slightly higher among men miners than women miners. While the existence of GBV is admitted, the level seems suppressed and could be the tip of the iceberg. It seems appropriate to institute mechanisms for protection of women from GBV.

- There are negative norms against the involvement of women in mining that limit women's role to domestic matters and restricts the participation of women in mining.
- The most potent inducement for involvement in ASM is the opportunity to get "better income as compared to other local activities", which is closely related to "luck of alternative livelihood".

Child labour aspect

- As a negative effect of ASM, "increasing school dropouts" stands out as the most frequent response, followed by "Physical damage on children".

Community aspect

- "Proliferation of sex work", "Drug and alcohols addiction", "conflict", "Displacement", are social problems that arise in mining sites calling for some intervention.

Environmental aspect

- The level of awareness of artisanal operators on the environmental effect of artisanal mining is low, although the extent of awareness varies with the type of miners. MSE miners have more percentage of aware members than unaware members.

Health and safety aspect

- The survey indicates that more than half of all the miners across regions (55%) have experienced sickness.
- The most prominent sickness is malaria, remotely followed by waterborne diseases.
- The use of protective devices is not the norm and only a little percentage of the miners use protective devices.
- The overwhelming majority of the operators do not regularly get their health status inspected as there was no organised body for inspection and monitoring of health status in their localities.
- Health services, miners' health and equipment inspection facilities are missing.

Policy recommendations

Production- and technology-related

- Facilitating and providing improved gold mining and processing technologies.
- Providing technical and entrepreneurship trainings to ASM and small-scale operators.
- Availing credit lines and creating access to formal credit.

Market-related

- Enhancing access to markets to miners (making markets nearer to miners).
- Addressing sellers' preferences by making transactions at the mining site, providing advances or lending money to the miners/sellers.
- Improving the availability and accuracy of weighing and quality testing facilities.
- Standardising prices and providing price information.
- Addressing the selling difficulties for miners associated with quantity thresholds.

Legal and institutional matters

- Changing the regulation or creating awareness about the existing ones.
- Organising documentations on mining in terms of proper mineral prospection, exploration, feasibility study, archive data etc.
- Providing working manuals and guidelines for artisanal and small-scale gold miners.
- Harmonising cross-regional issuance of licenses, duration of the validation period of the license and royalty and income taxes levied the activities of stakeholders (mining bureau, trade bureau, environmental protection bureau, etc.)
- Building capacity of government stakeholders at regional, zonal, and *woreda* levels and avoiding political assignment of administrative bodies that lack know how on mining.

Social and environmental issues

- Attending to health and safety issues from miners regarding sickness due to malaria, waterborne diseases, and lack of protective devices, as

well as providing health status inspection facilities and miners' equipment inspection facilities.

- Addressing environmental issues through environmental-friendly technologies and enhancing environmental awareness among artisanal and small-scale gold miners.
- Help women to have a better role in mining.
- Provide improved protection for women against possible gender-based violence.
- Protect children in mining localities from dropping out from school and from physical damage.