

ARTISANAL AND SMALL-SCALE MINING IN TANZANIA:



EVIDENCE TO INFORM AN
'ACTION DIALOGUE'

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EXECUTIVE SUMMARY

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BACKGROUND

Tanzania is endowed with a variety of mineral resources exploited by large-scale mining (LSM) and artisanal and small-scale mining (ASM) operations in various parts of the country. ASM is an important sub-sector in Tanzania, providing direct employment to an estimated million and half people mainly from rural communities. Since the introduction of the economic policy reforms in late 1980's and early 1990's, there have been efforts made by the Government to modernize ASM through various programs and extension services. However, there are still significant challenges constraining the subsector mainly in mining and processing technology, access to land, financing and value addition to minerals, just to mention a few. These challenges call for intervention in order to enable the country benefit from the subsector's potential towards sustainable development.

The International Institute for Environment and Development (IIED) runs a global ASM dialogue programme which is designed to help national stakeholders identify solutions that promote formalised, rights-based, productive ASM within a more inclusive and responsible mining sector. A scoping study conducted in Tanzania by IIED in September 2016 established Tanzania's readiness and interest on an ASM dialogue programme giving rise to the undertaking of pre-dialogue activities with local partners. This document presents the findings of the dialogue research, a component of the pre-dialogue activities, which has been conducted by MTL Consulting with guidance from IIED. The study adopted a multi-method approach that involved desk top study on secondary information, primary data collection and consultation with stakeholders at national, regional, district and community levels. It identifies the challenges facing ASM in the country and recommends the way forward.

OVERVIEW

ASM Activities cover a wide range of minerals

In Tanzania ASM involves mining, processing and trading of gold, gemstones, industrial minerals and metallic ores such as copper. ASM activities have been increasing in the past 20 years. For example: -

- The number of Tanzanians directly employed in ASM rose from 150,000 in 1987 to 550,000 in 1996 (MEM Baseline survey, 2012). The Ministry of Mines (MM) currently estimates the number to be more than one million (2015 MEM Budget Speech) Other estimates release recently have put the number of people directly involved in ASM to be around 1.5 Million (Hilson, 2016).
- The number of PMLs issued annually rose from a mere 35 in 1999 to more than 5.000 in 2016, (data obtained from MM, 2017)

The 2012 baseline survey also indicated that women made up about 27% of people directly employed by ASM. In most cases, women are active in the mineral processing and the delivery of auxiliary services while men do most of the digging related activities. Although the Government has been conducting awareness campaigns aimed at improving women participation in mining, women still face economic and socio-cultural barriers that restrict their effective involvement in mining activities and hence they receive minimal benefits. Some of the main challenges faced by women in ASM include social cultural practices and taboos undermining the role of women in the community, challenges to access capital and markets as the mining industry is highly male dominated, and sexual harassment and abuses.

Further, data collected by the baseline survey indicated that more than 50% of ASM involves gold mining. ASM gold mining areas are located in many

parts of Tanzania, mostly in the well-known Lake Victoria greenstone belt north of Tanzania, Singida – Sekenke in the central part; and some in other parts of the country in the Proterozoic system such as Mpanda goldfields in the western part and Lupa goldfields in the South-western highlands. Some of the recent discoveries include Mbinga areas in the southern part bordering Mozambique; Sambaru and Londoni areas in the central-part, and Morogoro, Kilindi and Handeni in the eastern part of the Country.

Official statistics indicate that in 2015 ASM produced more than 1,500kg of gold valued at around USD 40 million. However, this represents a small percentage of the overall production as an independent study conducted in Geita Region revealed that only 2.5% of gold was produced by ASM. This indicates the lack of productivity due to the various challenges faced by the sector.

Gemstone mining in Tanzania has traditionally been undertaken by artisanal and small-scale miners. Some of the famous gemstone mining areas include Mirerani (tanzanite) and Mayoka (emeralds) in Manyara Region; Longido (ruby) in Arusha Region; Mahenge and Matombo (ruby) in Morogoro Region; Mpanda (emeralds) in Rukwa Region; Tunduru (alexandrite and its variants) and Mbinga (sapphire and its variants) in the Ruvuma Region. Others include Mpwapa (sapphire and its varieties) in Dodoma Region, and alluvial diamonds in Shinyanga Region. According to the 2012 baseline survey, gemstone mining (excluding diamonds) accounts for nearly 12% of the ASM population.

ASM of industrial minerals (collectively known as “Development Minerals”) has a long history dating back to late 1960s, and to date accounts for nearly 24% of the ASM population in Tanzania. The minerals mined in this category include limestone, bentonite, meerschaum, mica, building stones, aggregates, gypsum, kaolin, dolomite, to mention a few. Mining, quarrying and processing of industrial minerals and building materials vary depending on the commodity and range from basic tools such as picks and shovels for gypsum, to modern equipment such as drill rigs, crushers and screens and the use of explosives

for rock blasting. Despite the huge potential of development mineral resources in the country, the high transportation costs to market and the low unit cost compared to gold and gemstones, limits the number of participants in this group. The mining of other mineral commodities including copper, diamonds and salt account for about 6% of total ASM population. These minerals are spread across the country with salt mainly found along the coastline on the Indian Ocean, diamonds in Shinyanga Region near Lake Victoria and Copper from different parts of the country.

Negative Health, Safety, Environmental (HSE) and socio-economic Impacts

Although formalization of ASM has been ongoing in Tanzania since the enactment of the 1998 Mining Act, there is still a high level of informality in the sub-sector. This is usually related to the limited capacity of the Government to deal with the large and fast-growing number of new entrants. Even where the operations are formal, the lack of technical knowledge and limited access to resources, means that most operations are carried out by trial and error and using rudimentary technology that result in substantial negative HSE and socio-economic impacts. These include deforestation, destruction of habitats and arable land, contamination of surface and ground water, noise and air pollution. drilling, ore loading, surface crushing and grinding are all dry processes generating dust, which have the potential to cause respiratory problems and lung diseases. Amalgamation that is commonly used for recovery of gold and the release of mercury to air, soils and water leads to direct health impacts and indirectly through the food chain. The application of rudimentary tools and technology, lack of technical skills, limited access to technology and finance usually lead to increased safety risks. Accidents from falling rocks from poorly supported excavations, lack of appropriate personal protective equipment, falling pits, flooding and other safety risks lead to increased fatalities in ASM. Statistics from the Ministry of Minerals show frequent mine accidents in licensed

and unlicensed ASM operations. For example, from January to May 2017, 11 mine accidents were reported resulting in 26 deaths.

The discovery of minerals in a particular area leads to influx of miners and people looking for opportunities. The large influx of people usually leads to socio-economic pressures including increased crime and violence, increased demand for health, education, water and power supply and other social welfare services. Local authorities are usually ill-equipped to respond with increased pressures on the social welfare services and policing requirements. Reports of human rights violations are common in ASM areas, specifically child labour and sexual harassment. In 2003, a study by the International Labour Organization established that 2,723 children between the ages of 12 and 15 years were working in the Tanzanite mines of Mirerani.

Formalization is hindered by limited mining land, finance and institutional capacity

Although most ASM operators blame the lack of mining land on LSM whom they blame for occupying large tracts of land, some of the ASM license owners also hold land for speculation and thus keeping them inactive. Most operators contended that areas that have been designated by Government for use by ASM are usually not mineralised and hence not preferred by most miners. This is also exacerbated by the lack of geological exploration knowledge by ASM operators and the lack of provision of geo-data by Government. The weak institutional structures and lack of coordination between government institutions have also weakened the ability of Government to formalize the sub-sector. The lack of coordination between institutions like the Ministry, environmental agency, geological survey, revenue authority and Land use departments at the district level, leads most ASM operators to continue operating illegally. Even where the legislation for individual sectors are clear, the lack of awareness and knowledge of the regulatory requirements and their own obligations coupled with limited

capacity to enforce the regulations by the Government make formalization difficult. Although the licensing system has been simplified by allowing mining regional offices to receive applications and issue licenses, it remains divorced from the local Governments. The lack of involvement of the local Government in the ASM licensing weakens the Government's ability to control speculation on mining land and have effective control on environmental management.

The Role of Women in ASM inhibited by cultural and institutional barriers

Cultural perceptions of women as having their place at home to look after family have tended to weaken women's confidence in coming forward and competing in a male dominated sector. Although their numbers, and especially those with licenses have increased over the years, for example, from 25% to 27% (according to baseline survey of 2012), most women are still participating in so called 'auxiliary' activities; for example, transporting, washing, sieving and amalgamation of ore, cooking and other service provisions like bar tending, etc. Where women license holders have engaged men to undertake mining activities, they usually face sexual harassment and other human rights violations. Access to finance through the formal and informal channels, usually available to their male counterparts, is difficult for women as this is controlled by men. Access to mining land is also difficult for women as most complain of being segregated during allocations of the minerals rights and no mining land is specifically allocated to women miners. Even in those portions of land which have been allocated for ASM, it is hard or rare to find an area allocated for women miners only. With most reliable mineral markets being dominated by men, most women find it difficult to access markets that are viable and rewarding. This is exacerbated by the lack of market knowledge and information and negotiating skills in order to get good prices offered by the brokers who buy their minerals.

ASM business environment is poor due to limited access to finance and market information

The lack of collateral which is demanded by most financial institutions, coupled with the lack of knowledge by most ASM on how to deal with the requirements for loans access, limits their ability to access financing for mining operations. On the other hand, the limited knowledge of ASM by the financial institutions leads most of them to perceive the sub-sector as being too risky for their business. Limited information on markets and guiding prices leads most of the ASM to deal with brokers and middlemen most of whom are illegal and hence buy their minerals at very low prices. The procedures for accessing grants offered by the Government were to most miners complicated and bureaucratic and hence leading the funds to be accessed by a small proportion of miners. Most non-gold ASM operators blamed the Government of being biased towards gold miners who receive most of the grants. The taxes charged by the relevant Government institutions were also blamed as being burdensome.

ASM-LSM Interface

Competition for the same resources usually brings ASM and LSM into conflicts as they seek to access the same resources. There are usually conflicts between ASM and LSM with each side accusing the other of interfering in their operations. ASM operators accuse LSM and Government of taking large tracts of land and hence relegating them into areas that have no mineral resources. On the other hand, LSM operators accuse ASM of invading their licensed areas and leading to environmental impacts and insecurity. Local Governments also complain of being left out in the dark by the licensing authority and not knowing how licenses are allocated which lead to land conflicts that become difficult to control. All these lead to poor relationships among the LSM, ASM and the Government.

THE WAY FORWARD

Although the Government of Tanzania has made efforts in formalizing and transforming ASM into small-scale business enterprises that benefit both the participants and the country at large, the above challenges still hinder its success. Following this research, thematic dialogues and uni/bi-stakeholders consultations, the following should be further explored through the dialogue.

Minimizing Environmental, Health and Safety Impacts

Empowering regional mining offices through provision of human and financial resource and working tools, coupled with harmonization of the roles of National Environmental Management Council (NEMC) and MM, were seen as crucial for assisting ASM to reduce impacts on the environment, health and safety. It was recommended that local Governments should be enabled to play more active roles in environmental management and overseeing mining operations in their areas. It was recommended that it should be a legal requirement for ASM to fill their pits at the end of mining. Training for both miners and communities and increasing the number of environmental officers at local level were identified as being crucial. Strict measures and monitoring of procurement, storage and use of chemicals like mercury and cyanide should be applied.

Supporting formalization process

The continuing informality in the sector could be reduced by ensuring that access to mining land is improved. The land allocated to ASM should have geo-data that will assist participants to avoid trial and errors and hence negative impacts. Improvement of the licensing system through reducing the bureaucracy, increasing district offices, reducing license fees and provision of efficient extension services were seen as crucial in the formalization process. Institutional coordination in the administration and regulation of the sector was considered crucial in reducing barriers to formalization. Most ASM participants

should be trained on the legislation and regulations governing mining operations in order to improve their understanding of the law and their obligations. This will be enhanced by the involvement of the local Governments in the administration of ASM.

Improving women participation

In order to improve the role of women in ASM, the Government through the Ministry of Land, MEM, the Mineral Commission and the licensing agencies should enable women to own both land/mining blocks and licenses for production. Special financing programmes that specifically aim to benefit women miners should be availed by both the Government and financial institutions. Setting up of minerals trading centres where the relevant agencies can regulate and ensure stable prices will enable women to access reliable markets. Knowledge and skills on entrepreneurship, diversification and investment for women in ASM should be provided by relevant agencies. In order to promote women entrepreneurs to venture into ASM and its associated activities, both local and central Government should consider removing or lowering some of the conditions, for example, fees and tariffs, for businesses. It was recommended that regular stakeholder forums or dialogue and engagements should be organized and held at regional and national levels to discuss how to mainstream women in the sector, amongst other things. In addition, in order to enhance the role of women in decision making, deliberate measures should be taken by the Mineral Commission to have a larger women representation in the governance structures both at regional and national level.

Promoting conducive business environment

Providing and supporting better access to finance, technology and markets is considered crucial to promoting a conducive business environment for ASM. Training is recommended to enable miners to understand the requirements for

accessing finance from financial institutions. Also, financial institutions should be given awareness training in order to understand the needs of ASM and have a complete knowledge of its risks and opportunities. The miners should be given skills through training on various stages of the mining processes and the steps required along the value chain. This can be done through incubation programs facilitated by Small Industries Development Organisation (SIDO) and Vocational Educational and Training Authority (VETA) in collaboration with the Miners' Associations. The Government, through its relevant institutions, for example, MM, STAMICO, Minerals Commission, and Bank of Tanzania (BoT), should ensure the availability of viable markets and provide indicative prices for minerals and gems. The Government should also invest in improving technology on geological surveys so that ASM participants can have more accurate data before they engage in extraction. Through extension services, geologists should be available at local level to provide accurate and timely geological data analysis for miners. Other initiatives for improving the ASM business environment include improvement of the infrastructure in the mining areas that would attract entrepreneurs into the areas. Organization of mining exhibitions intended to showcase the work and products of ASM should be encouraged.

Promoting harmonious ASM – LSM Interface

Promotion of mutual respect between ASM and LSM should be encouraged through awareness raising programs in which ASM operators are trained on their rights and responsibilities as small-scale miners and the importance of environmental protection, and LSM operators are encouraged to engage in dialogues with ASM and the communities at large. Promoting joint training programs which aim at providing technological and technical support to the ASM through representatives of ASM engaging directly with LSM to set up agendas and identify areas of engagement. In addition to its regulatory role, the Government can also provide sensitization seminars and public talks on the rights and responsibilities of ASM and their obligation to operate under the legal

requirements. The Government should also constantly provide information to the local Government on all issuance of LSM licenses so as to avoid any land conflicts. The Government should also make sure that all relevant authorities are well established and functioning at full scale in the mining communities.

