PMRC
Policy Monitoring and Research Centre

OWNERSHIP OF ARTISANAL AND SMALL-SCALE MINING RIGHTS IN ZAMBIA

CHALLENGES AND OPPORTUNITIES FOR WOMEN'S PARTICIPATION

RESEARCH REPORT

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ABBREVIATIONS

ACP-EU	African Caribbean and Pacific Countries- European Union
ASM	Artisanal and Small-scale Mining
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CSOs	Civil Society Organisations
COVID-19	Coronavirus Disease 2019
DRC	Democratic Republic of Congo
EITA	Extractives Industry Transparency Alliance
EU	European Union
GDP	Gross Domestic Product
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICT	Information Communication Technology
ILO	International Labour Organization
LFS	Labour Force Survey
UDHR	Universal Declaration of Human Rights
UNDP	United Nations Development Programme
UNGPs	United Nations Guiding Principles on Business and Human Rights
SDGs	Sustainable Development Goals
ZEMA	Zambia Environmental Management Agency

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Executive Summary

This study presents research findings regarding the challenges and opportunities hindering women's participation in the ownership of rights in the Artisanal and Small-scale Mining (ASM) sector in Zambia. The study aimed to understand the participation of women in ASM as well as the challenges and opportunities for advancing their empowerment. The study employed qualitative methods, while the selection of artisanal and small-scale female miners was done purposefully, supported by key informants that helped in identifying 15 women miners within the ASM sector. This was done in a snowball non-random sampling approach. All 15 women identified participated in the study translating into a 100 percent response rate.

Findings revealed that despite women slowly gaining interest in organised mining and increased sector participation, they lacked access to capital, thus hampering their full participation, investment and productivity. Limited capital to invest in machinery also meant that mining was highly seasonal, with inadequate capacity for production during the rainy season, which affected their growth and profitability. In addition to limited access to financial capital, the processes involved in obtaining mining licences were considerably costly and bureaucratic. While mining licences were cited as relatively affordable, the cost of licence fees, such as Environmental Project Briefs and environmental certification, was considered costly.

The findings indicate that women had inadequate technical skills as they lacked training in specialised fields such as Mining Engineering, Geology, Surveying, and Metallurgy, among others and this posed a limitation to successful mining ventures. In addition, they lacked access to geological information, which is critical in accessing investment opportunities, developing bankable financial proposals and mine planning. Furthermore, although women had control over the minerals they mined, their negotiation skills were limited. The lack of negotiating power led to failure of not yielding maximum benefits from the minerals mined as foreign buyers benefited more due to exploitative pricing mechanisms.

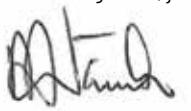
The study also revealed that **cultural norms and beliefs negatively influenced women's participation in ASM. For instance, some beliefs prevented women from entering mining sites during their menstrual cycle for fear that it would lead to the disappearance of minerals.** In cases

where women defied the aforementioned norms, they were still reluctant to enter mining sites due to the prevalence of sexual harassment. Thus, it was found that the aforementioned factors were limiting women from participating in the sector.

Although the Government had been encouraging women to obtain mining licences as enshrined in the mining policy, the participants indicated that efforts to mainstream gender in mining policies were inadequate. It was noted that the majority of women in ASM were operating informally due to a burdensome tax regime. This study revealed that the prohibitive fiscal regime was limiting women's successful participation in the sector. **It was also found that the Mining Cadaster system did not disaggregate data by gender to ascertain the number of women obtaining mining licences. Thus, it is critical for mining policies to develop gender-responsive indicators that can help track the progress made in enhancing the participation of women.**

Notwithstanding the challenges women face in ASM, it was noted that several opportunities exist critical not only to enhancing women's participation but also to maximising the full potential of the ASM sub-sector. These include; the expansion of minerals value chains to promote the engagement of women in non-traditional minerals such as pebble stones, granite and flat stones, among others. This presents a good opportunity for women to engage in the sector as these minerals are easily identifiable and can be found on the surface - and thus may not require much capital investment and machinery. Further, joint ventures and cooperatives are also an opportunity for investment that could help address financing challenges as members can pool their resources or attract capital. Similarly, women can partner with skilled professionals in the mining fields which would enhance their understanding of operations and requirements to maximise their benefits in the sector.

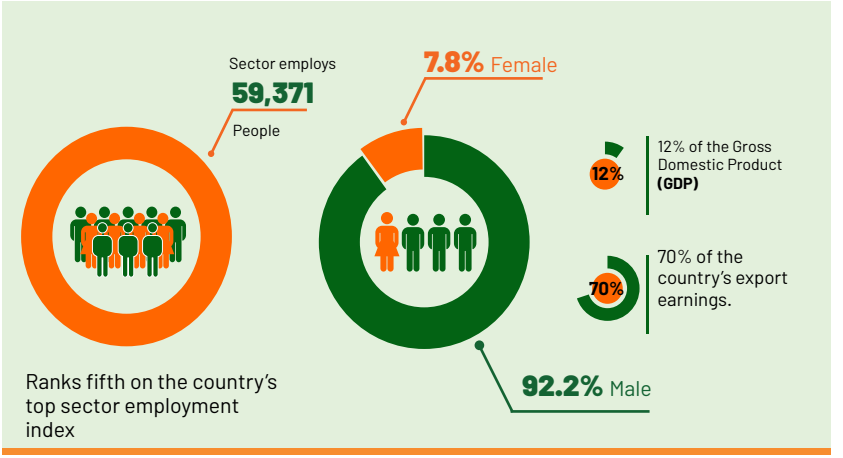
The Government is therefore urged to develop a stand-alone mining policy for the ASM and mineral-specific strategies to address the challenges faced within the sub-sectors effectively. In addition to the stand-alone mining policy, the Government should consider expediting the establishment of a directorate for ASM under the Ministry of Mines and Minerals Development. Further, Government is urged to support women-led ASM businesses, cooperatives and networks through the provision of incentives such as tax incentives, easing of formalisation standards, streamlining regulations and mining licence procedures, improved access to finance through the establishment of a fund at the Ministry of Mines and Minerals Development, improved access to technology as well as extractive and processing machinery, among others. These incentives could encourage the formalisation of women-led ASM and spur productivity critical to stimulating economic growth, job creation and economic empowerment of women.



Sydney Mwamba
PMRC Acting Executive Director

1.0 Introduction

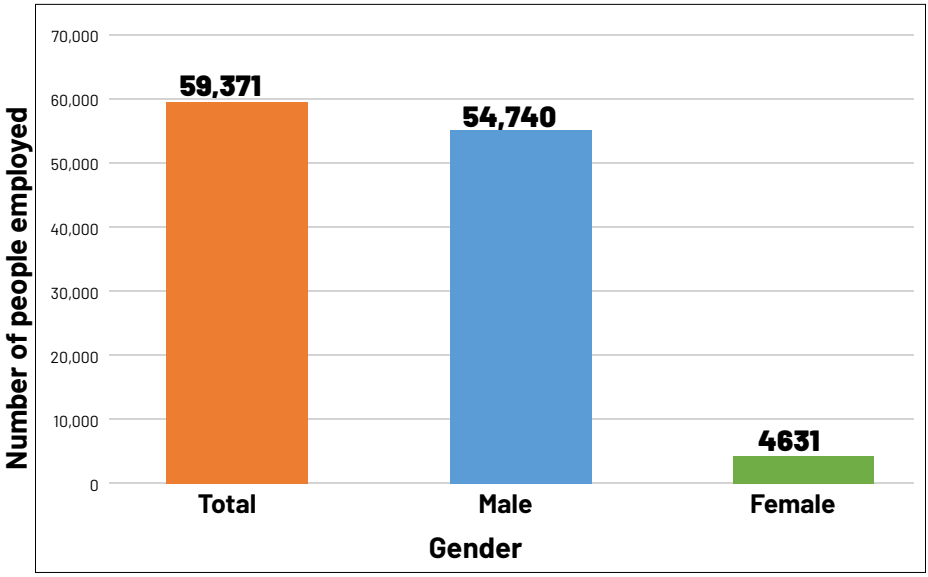
Mining is the major driver of economic activities in Zambia, accounting for about 12% of the Gross Domestic Product **(GDP)** and more than 70% of the country's export earnings[1]. Further, the sector employs about **59,371** people, making it fifth on the country's top sector employment index. Of the total employed in the sector, 92.2% are male, while only 7.8% are female, exhibiting deep gender disparities[2].



The emergence of organised Artisanal and Small-scale mining offers better opportunities to change the gender narrative in the mining sector and enhance the social and economic position of women. However, the subsector is not immune to challenges that continue to impede women's full participation. ASM refers to small groups and individuals engaged in the low-cost and labour-intensive excavation of minerals using minimal mechanisation.

1. How Can Zambia Benefit More from Mining (2016) World Bank Retrieved fromhttps://www.worldbank.org/en/news/feature/2016/07/18/how-can-zambia-benefit-more-from-miningLabour
2. Force Survey (2020). Retrieved from https://www.mlss.gov.zm/wp-content/uploads/2022/03/2020-Labour-Force-Survey.pdf

Figure 1. Number of people employed in the Mining and Quarry Sector



Source: 2020 Labour Force Survey

Among others, the most cited drivers of the gender disparities in the mining sector include **inequitable access to education and productive resources such as land, household labour, and limited empowerment opportunities[3]. Similarly, the Gender Status Report[4] also reechored the correlation between education and stereotyping of women as significant gender barriers in Zambia's mining sector.** While these gender disparities are evident, they occur at the backdrop of a conceited realisation that promoting the participation of women in economic activities such as mining will help improve their socio-economic position. Women's empowerment is premised on the ability of women to control and benefit from resources, assets and income. It is, therefore, imperative for policies and programmes to domicile and advance the socio-economic outcomes of women, particularly in sectors such as ASM, which are largely male-dominated.

3. Ministry of Gender (2021). Gender Status Report 2017- 2019. https://www.giz.de/en/downloads/giz2021_en_Zambia_Gender_Report_2017-2019.pdf
4. Taukobong, F. G. H., Kincaid, M. M., Levy, K. J., Bloom, S. S., Platt, L. J., Henry, K. S. & Darmstadt, L. G. (2016). Does addressing gender inequalities and empowering women and girls improve health and development programme outcomes? Health Policy Plan. 2016 Dec;31(10):1492-1514. doi: 10.1093/heapol/czw074.

Supporting women in mining is key to fostering inclusive growth and will help improve their economic status as well as contribute to progress towards achieving the Sustainable Development Goals (SDGs) No. 5 on gender equality with the aim of reducing social exclusion and inequality. This will have ripple effects on improving their livelihoods and overall household incomes. Studies suggest that when women are economically empowered, they have more control over incomes, assets and resources, their decision-making power is increased, and their children have better access to education, health and nutrition, which are the bedrock for sustainable and equitable development that Zambia strives to achieve.

1.1 Background of the Study

The ASM activities in Zambia are la**rgely dominated by minerals such as Amethyst, Manganese, Red Garnet, Topaz, Emeralds, Gold, Tomalin, Copper (from copper ore dumpsites), among others.** Despite being in existence as far back as the 1930s when the first mineral deposits were first discovered in rural Ndola, much of the ASM activities remain informal. For instance, a survey conducted in 109 ASM mining sites by the Ministry of Mines and Minerals Development with the support of the African Caribbean and Pacific Countries- European Union (ACP-EU) Development Minerals Programme revealed that the vast majority of the ASM workers did not know that their ASM activities required a valid licence nor did they know how to obtain such a licence[5]. Aside from being largely informal, the ASM sector is synonymous with low productivity, limited regard for health and environmental standards and the absence of social security. Nevertheless, ASM is the source of income for a significant portion of the informal sector, particularly women in and around mining sites. For instance, in sub-Saharan Africa, the sub-sector directly employs at least 10 million people, of which 40–50% are women.

5. Tychsen, J; Mukofu, C; Msimuko, J; Zimba, K; Chadukwa, C; Chibonga, M; Phiri, C; Simukali, M; Nguni, M;Mwenya, C; Chinyamuka, L.; Sanga, C; Chuula, T; and Milimo, I (2018). "ASM Handbook for Zambia" Geological Survey of Denmark and Greenland (GEUS). Copenhagen, Denmark, 218 pp.

Women in Mapatizya sorting and grading amethyst

Further, the sub sector indirectly provides livelihood to approximately 60 million people[6]. In Zambia particularly, over 500 thousand people draw their livelihood from it as artisanal miners and of that number, 41% are women[7]. Despite this information being insufficient to paint the full ASM spectrum, the conservative estimates demonstrate that women are critical ASM players. However, their participation in the ASM sector is variably and more adversely impacted by a tally reflection of existing gender disparities compounded by the stratification and social, environmental and economic pressures the ASM sector creates[8]. For instance, in Rwanda, while performing similar roles such as carrying ore or panning, women earn 25–30% less than their male counterparts[9]. Nevertheless, ASM offers better opportunities to enhance women's participation in the whole mining value chain. Moreover, in some contexts, the economic opportunities provided by the ASM sector are more valuable for women than alternative non-mining activities. Research in sub-Saharan Africa found that women in Rwanda earned approximately 223% more at ASM mining sites as compared to non-mining activities, while in Uganda, they earned 335% more.[10]

6. Shining a light on a hidden sector (2019). World Bank. Retrieved from https://www.worldbank.org/en/news/feature/2019/06/19/shining-a-light-on-a-hidden-sector#:~:text=Sub%2DSaharan%20Africa%20is%20home,-million%20reliant%20on%20the%20sector.
7. Tychsen, J.; Mukofu, C; Msimuko, J; Zimba, K; Chadukwa, C; Chibonga, M; Phiri, C; Simukali, M; Nguni, M;Mwenya, C; Chinyamuka, L.; Sanga, C; Chuula, T; and Milimo, I (2018). "ASM Handbook for Zambia" Geological Survey of Denmark and Greenland (GEUS). Copenhagen, Denmark, 218 pp
8. African Women in Artisanal and Small-scale Mining (2015). AMDC. Retrieved from https://internationalwim.org/wp-content/uploads/2020/11/women_in_artisanal_and_small_scale_mining2015_en.pdf
9. WIAMO (Women In/And Mining), Carleton University, Partnership Africa Canada, and Development Research and Social Policy Analysis Center. 2017. Women in Artisanal and Small-Scale Mining: A Snapshot of Challenges and Opportunities for Empowerment.
10. Buss D., Rutherford B., Hinton J., Stewart J., Lebert J., Eva Côté G., Sebina-Zziwa A., Kibombo R., Hinton J., & Lebert J. (2019). "Gender and Artisanal and Small-Scale Mining: Implications for Formalization", 6(4) Extractive Industries and Society, 1101-1112.

Whilst all signs point to policymakers recognizing this very significant potential and how rooted the gender variations in ASM are, there has been little effort to implement policies and strategies to address them and make ASM the centre of the national development strategy. For instance, in 2020 Government developed an Export Diversification Strategy for Gold and Gemstones[11]. Some of its objectives were to improve access to geological information, facilitate access to finance for capital equipment, facilitate the amalgamation of small-scale mining entities into viable sizes and build capacity among small-scale miners. However, many of these objectives have not yet been realised. The ASM sector continues to face significant challenges that impact productivity, formalisation and revenue generation. This has continued to present the sector as a risk for investment. On the positive side, some objectives, such as facilitating market linkages through the Ministry of Commerce, Trade and Industry and the Zambia Development Agency (ZDA), have performed well in branding Zambia as a potential investment hub for the Gemstone sub-sector.

1.2 Purpose of the Study

This study aimed to develop an in-depth understanding of the challenges and opportunities facing women in ASM and the subsequent impact on women's participation in ASM activities. This study sought to inform policy by drawing from strategies that could influence greater inclusion of women in the sector as well as enhance the socio-economic benefits of women in ASM.

1.3 Research Questions

This study sought to answer its main question, **"What challenges impact the participation of women in ASM, and what opportunities exist for greater inclusion of women in the sector?"** This question was addressed through the following questions:

Are there any gender considerations in the ownership of mining rights in the ASM sector?

What are the barriers impeding women from effectively benefiting from the ASM sector?

Do opportunities exist for women in the ASM sector?

What policy recommendations can be drawn to enhance women's participation in the ASM?

11. Ministry of Commerce, Trade and Industry (2020). Zambia Export Diversification Strategy for Gold and Gemstones. https://www.mcti.gov.zm/?wpfb_dl=42

2.0 Methodology

This study employed a qualitative approach to address the research objectives adequately. Qualitative data provided an in-depth understanding of the challenges and opportunities for women to participate in artisanal and small-scale mining activities actively. The findings informed the policy recommendations drawn to enhance the participation of women in ASM.

2.1 Sampling

Key informants for this study were drawn using non-probability purposive sampling using snowball method. The selection of artisanal and small-scale miners was aided by key informants (5) that helped identify (15) women miners to share their experiences in ASM. The study areas were selected based on the active participation of women in ASM and represented 4 provinces.

2.2 Data collection

An interview guide was developed to collect primary data through in-depth interviews with participants that consisted of mine owners and stakeholders that work in ASM. Secondary data was reviewed to consolidate and support the findings of the study. This mainly consisted of peer-reviewed articles and programme documents. Both primary and secondary data informed the challenges and opportunities women in ASM face and were critical in the development of recommended strategies to optimise the participation of women in ASM.

2.3 Data Analysis

Qualitative data were transcribed and analysed using themes from which narratives were drawn to address the specific research questions.

2.4 Ethical Considerations

This study observed the following ethical considerations: informed consent, anonymity, avoidance of deception, discontinuance and confidentiality.

2.5 Limitations of the study

This study had a limited scope by design as key informants and participants were drawn purposively. Additionally, due to financial constraints, the study only covered five sites, namely Mapatizya, Siavonga, Lufwanyama, Mumbwa and Lumezi. Further, there were challenges in ascertaining the number of women involved in ASM as the sector has largely remained informal, and the Mining Cadastre does not have a provision to register the gender of an individual or the composition of the entity applying for mining rights. Therefore, the findings of this study cannot be generalised.

The PMRC team with miners in Lufwanyama

3. Factors Affecting the Growth and Contribution of Women in ASM

3.1 Frameworks for Women's Social and Economic Inclusion

Zambia is signatory to various protocols that support the socio-economic inclusion of women, such as the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW); the Universal Declaration of Human Rights (UDHR); the International Covenant on Economic, Social and Cultural Rights (ICESCR); the United Nations Guiding Principles on Business and Human Rights (UNGPs); International Labour Organisation (ILO) Employment Policy Convention; and the Sustainable Development Goals (SDGs). These protocols recognize women's roles in national development and underpin their inclusion through principles of non-discrimination in all socio-economic spheres and governance. As these protocols continue to be operationalised through gender-responsive policies and action plans, there is a need to identify barriers that hinder women's equal participation in the mining labour force, issuance of ASM licences and contracts as well as strengthen the mainstreaming of strategies that foster gender inclusivity in the mining sector.

3.2 Formalisation of ASM

The ASM sub-sector is largely informal, driven by poverty and inadequate technical skills to fully exploit the sector and derive maximum benefits from it. To realise its potential, calls for the subsector's formalisation have gained momentum. Concurrently, this push is happening at a time when gender inclusivity in the mining sector has proliferated. Although various studies argue that the integration of ASM into the formal economy could have demerits such as taxation, and stringent health and safety regulations which could lead to further exclusion of women from accessing mining licences[12] and effectively participating in critical roles such as decision-making[13], it could also be an opportunity to elevate women's benefits in the sector through the incorporation of gender equity and affirmative action in mining policies, laws, regulations, standards and codes[14]. Further, the acquisition of mineral properties as a result of formalisation could provide women collateral through which they could access support from the state and financial institutions to improve their mining business[15].

The PMRC team with miners in Siavonga

12. Hilson, G., McQuilken, J. (2014). Four decades of support for artisanal and small-scale mining in sub-Saharan Africa: A critical review. Extr. Ind. Soc. 1 (1), 104-118.
13. 8 Perks, R. (2013). The inclusion of artisanal and small-scale mining in national legislation: Case studies from sub-Saharan Africa, 59 Rocky Mt. Min. L. Inst. pp. 19.
14. African Union, (2009). Africa Mining Vision. Addis Ababa: Africa Union. http://www.africaminingvision.org/amv_resources/AMV/Africa_Mining_Vision_English.pdf.
15. Siwale, A. and Siwale, T. (2017). Has the promise of formalizing artisanal and small-scale mining (ASM) failed? The case of Zambia. The Extractive Industries and Society. vol. 4, no. 1. pp. 191-201.

Similarly, assertions have been made that the formalisation of ASM could lead to improved rural livelihoods, job creation and poverty reduction while also extending economic benefits to the state as an untapped source of revenue[16]. For instance, in South Africa, ASM has been identified by the Government as a key sector to drive local economies[17]. This is also in line with the objectives of the African Mining Vision, which seeks to harness the potential of ASM to improve rural livelihoods, stimulate entrepreneurship in a socially responsible manner, and promote local and integrated national development as well as regional cooperation[18]. However, more remains to be done to ensure women are part of that developmental agenda and mining policies need to be deliberate in adequately mainstreaming gender.

While these justifications are cited as lending urgency for ASM formalisation, some scholars argue that they have ignored the leading role state actors have played in creating conditions that have compounded informality problems in the ASM subsector[19]. These conditions include poorly formulated fiscal regimes and bureaucratic licensing processes, where ASM players are required to travel to provincial or national capitals and possess[20] a certain level of education and technical skills, to mention but a few[21]. This makes it nearly impossible for the majority of vulnerable ASM populations to comply with the licensing requirements. A study[22] conducted in the Democratic Republic of Congo (DRC), Rwanda and Uganda revealed that licensing was costly and, on that basis alone, out of reach for the majority of the artisanal women and men surveyed in the study. In addition to that, it revealed that the licensing procedure was bureaucratic.

3.3 High Cost of Finance

The high cost of finance is among the major constraints that exclude both male and female artisans from the formal credit market. **The cost is compounded by the perceived financial risks attached to ASM, which deter financial institutions from lending or even considering ASM mines as collateral[23].** In instances where these measures are relaxed and financial institutions extend financing to artisans, interest rates are still pegged high. An ASM study in the Democratic Republic of Congo (DRC) revealed that artisans relinquished applying for formal financing as the interest rates charged by banks was higher than the margins they make on Gold sales[24].

16. Economic Commission for Africa. (2011). Minerals and Africa's Development: The International Study Group Report on Africa's Mineral Regimes: The International Study Group Report on Africa's Mineral Regimes. UNECA, Addis Ababa.
17. O.D. Eniowo; L.D. Meyer; S.R. Kilambo; L.J. Gerber (2022). Implications of credit constraint on the formalization of artisanal and small-scale mining (ASM) in sub-Saharan Africa. Retrieved from http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S2225-62532022000300003
18. African Mining Vision. (2009). Boosting artisanal and small-scale mining. Addis Ababa: Africa Mining Vision, African Union.
19. Verbrugge, B.. (2015). The economic logic of persistent informality: Artisanal and small-scale mining in the southern Philippines". Dev. and Ch. 46 (5), 1023–1046
20. Geenen, S., (2011). Relations and Regulations in Local Gold Trade Networks in South Kivu, Democratic Republic of Congo. Journal of East African Studies 5 (3), 427–446.
21. Spiegel, S., (2015). Shifting Formalising Policies and Recentralization of Power: The Case of Zimbabwe's Artisanal Gold Mining Sector. Soc & Nat Res. 28, 543–558.
22. Buss D., Rutherford B., Hinton J., Stewart J., Lebert J., Eva Côté G., Sebina-Ziwa A., Kibombo R., Hinton J., & Lebert J. (2019). "Gender and Artisanal and Small-Scale Mining: Implications for Formalisation", 6(4) Extractive Industries and Society, 1101-1112
23. Spiegel, S. J. (2012). Microfinance services, poverty and artisanal mineworkers in Africa: In search of measures for empowering vulnerable groups. Journal of International Development, 24(4), 485–517.
24. Sofala Partners Limited, 2019, The barriers to financial access for the responsible minerals trade in the GLR, Public-Private Alliance for Responsible Minerals Trade.

On the gendered spectrum, the cost is seemly higher for women due to barriers emanating from cultural beliefs, lack of traditional collateral, their relatively lower financial literacy and income levels[25]. For instance, the 2020 Financial Scope Survey revealed that, due to lack of collateral, lack of proper documentation and low income, among others, about 57.2% of women are denied access to microfinance loans[26].

The inability to access affordable finance significantly affects women's quest to invest in the proper machinery and technology needed for a productive business. This then traps them in crude and unproductive mining processes[27].

The following result is poor health, safety, and environmental considerations. For instance, a mining study[28] in Jos, Nigeria, revealed that the inability to access proper technology led both male and female artisanal miners to use unconventional methods called "loto" to mine tin ore. The study examined the mining method and revealed that the technique exposed the miners to unhealthy life in addition to low retains. Besides that, the technique was found to be environmentally unfriendly.

To try and mitigate these unequal practices and lessen the financing gap, there have been recurring efforts to extend the funding sources through Government loan facilities and community cooperatives, among others. For instance, a credit facility in Ghana was established for small-scale miners called Circa 2005, where the Government released loans amounting to US$500 000[29]. The loans' terms were structured so that every miner was eligible, provided they formed cooperatives. Further, the loan was tied to equipment and consumables, and recipients were required to repay the loan in agreed instalments at a low-interest rate. Another feature of the scheme is that miners were expected to share the mining machinery procured, such as crushers, pumps, and generators.

25. Narain, S. (2009). Gender and access to finance. Washington, DC: World Bank. Retrieved from https://siteresources.worldbank.org/EXTGENDERSTATS/Resources/SushmaNarain-AccesstoFinanceAnalyticalPaper.doc
26. Finscope Zambia Survey Report (2020).
27. Barry, M. (ed.). (1996). Regularizing informal mining: A summary of the proceedings of the International Roundtable on Artisanal Mining. Industry and Energy Department Occasional Paper no. 6. Industry and Energy Department. World Bank, Washington
28. Mallo, S. (2011). Artisanal mining of cassiterite: The sub-surface (loto) approach. Continental Journal of Environmental Sciences, vol. 5, no. 2. pp. 38-50.
29. Planetgold. (2020b). Access to finance: Options for artisanal and small-scale mining. Report for Global Environment Facility (GEF). UN Environmental Programme.

3.4 Limited Access to Finance

ASM is a very labour-intensive activity. Majority engage in the sub sector due to poverty, unemployment and lack of other livelihood activities. In addition, ASM is often conducted in times of economic or seasonal stress. For instance, to escape the social, environmental impact of drought in Mali, many local peasant farmers have migrated into artisanal gold mining[30]. Thus, the sector is characterised by low-income earners, an unskilled, marginalised and otherwise low-literate population group. This is compounded by the remoteness of the ASM mines, which makes it difficult for the artisans to access financial services, which are typically located in towns. With limited access to formal finance, artisans are exposed to exploitative ASM dealers or risky informal financing[31]. Under this unconventional financing, financiers agree with artisanal miners to sell the minerals to them. While this arrangement has scored some positives in other jurisdictions like the southern Philippines, where the financier retains two to three shares of the proceeds[32], the contrary is true for Southern Africa. For example, an empirical informal financing study[33] in Rwanda and Tanzania revealed that the sponsors structured financing and trade relations in a way that led to artisanal miners receiving less than the market value. Similarly, a study[34] in Ghana revealed that financiers demand high-interest rates in addition to the preconditions that minerals be sold to them.

3.5 Income Inequality

For an individual artisanal miner, owning a mining right or mining pit is one of the lucrative features of ASM. Unfortunately, for women, it does not guarantee control of mineral earnings[35]. This is due to several gender-insensitive factors that structure the foundation of ASM mining zones, such as pit work versus everything else[36]. In this binary structure, pit work is exclusively for males. Because of this limitation, women are subsequently unaware of the extent of the actual mining. The absence of female participation in vital stages of mining activities tends to give men the advantage of exercising control over financial matters. Unable to see the financial flow, women realise little yield from their work. In instances where such limitations are obsolete and women participate in pit work, they still do not fully control their earnings due to prevailing traditional norms in most countries that classify women as subordinates to men[37].

30. Coulibaly. O (2017) . The Socio-cultural organization of artisanal gold mining and its impacts on the local livelihood: The case of the Kemogola mine site in southern-Mali.
31. Perks, R. (2016). I loan, you mine: Metal streaming and off-take agreements as solutions to undercapitalisation facing small-scale miners? The Extractive Industries and Society, vol. 3, no. 3. pp. 813-822.
32. Verbrugge, B. 2014. Capital interests: A historical analysis of the transformation of small-scale gold mining in Compostela Valley Province, Southern Philippines. The Extractive Industries and Society, vol. 1, no. 1. pp. 86-95
33. Perks, R. (2016). I loan, you mine: Metal streaming and off-take agreements as solutions to undercapitalisation facing small-scale miners? The Extractive Industries and Society, vol. 3, no. 3. pp. 813-822.
34. Hilson, G and Ackah-Baidoo, A. 2011. Can microcredit services alleviate hardship in African small-scale mining communities? World Development, vol. 39, no. 7. pp. 1191-1203.
35. Tanzanian ASM Forum. (2018). Action dialogue on artisanal and small-scale mining (ASM) in Tanzania,7-10 November, 2017 (Summary report). International Institute for Environment and Development(IIED).
36. Buss, D. Côté, G. Hinton, J. Kibombo, R. Kisekka, F. Lebert, J. Rutherford, B. Stewart, J. Sebina-Zziwa, A. (2017). Gender and Artisanal and Small-Scale Mining in Central and East Africa: Barriers and Benefits
37. Lawson, L. (2016b). Reflections of the life stories of gemstone professionals in Madagascar.Conference Presentation 4th International Conference on Sustainable Development, Columbia University, October, 2016.

This financial imbalance spills over to other roles in the mining framework, although constituted by gender relations. For instance, despite their gendered structure, auxiliary roles are seen as opportunities for women to maximise their potential; they tend to be underpaid and exploited. Typical examples include Ghanaian women involved in processing and hauling roles who earn 60% less than their male counterparts in digging roles, while in Guinea, 80% of the proceeds from washing gold out of lateritic soil goes to intermediary male buyers and not the women who carry out the work[38].

3.6 Technical Skills and Geological Information

While special reference is attached to the gendered foundation of ASM and cultural norms as prominent contributing factors of the widened gendered ASM framework, **lack of education and technical knowledge, compounded by illiteracy, also further inhibits women from fully engaging in the full spectrum of activities and processes of the mining business compared to their male counterpart[39]. Thus, sustaining their restriction to less remunerative auxiliary roles such as stone crushing, washing, and panning where they are exposed to health threats such as brain, kidney and lung damage due to the purifications associated with the aforementioned processes using mercury or cyanide and scavenge tailings where they encounter chemicals such as cyanide[40].** For instance, It is estimated that 81% of men are literate compared to 61% of women in Uganda. Further, approximately 24% of women have no formal education compared to 9.8% of men in that country[41]. Similarly, a study[42] on ASM barriers and benefits in East Africa revealed that almost 70% of the women surveyed had no schooling compared to less than 50% of the men.

38. Gerard. P (2022). ASM: Women need to be acknowledged and empowered Retrieved from https://www.miningreview.com/base-metals/asm-women-need-to-be-acknowledged-and-empowered/
39. Akovleva, Natalia. 2007. "Perspectives on Female Participation in Artisanal and Small-Scale Mining: A Case Study of Birim North District of Ghana." Resources Policy 32 (1-2): 29–41. 10.1016/j.resourpol.2007.03.002
40. Eftimie, A., Heller, K., & Strongman, J. (2009). Gender dimensions of the extractive industries: Mining for equity (Extractive Industries and Development Series #8). Washington, DC: World Bank. Retrieved from https://openknowledge.worldbank.org/handle/10986/19236.
41. Government of Uganda. (2013). Uganda: Facts and Figures on Gender. Kampala: Uganda Bureau of Statistics
42. Buss D., Rutherford B., Hinton J., Stewart J., Lebert J., Eva Côté G., Sebina-Zziwa A., Kibombo R., Hinton J., & Lebert J. (2017). Gender and Artisanal and Small-Scale Mining in Central and East Africa: Barriers and Benefits

Women miners in Mapatizya displaying amethyst

The same study also revealed that women are less mobile than men. Thus, denying themselves opportunities to accrue mining knowledge acquired from moving from one mine site to the next[43]. Similarly, this affected their access to geological information, given the lack of networks which could support access to information[44]. Lacking technical skills and access to geological data, women subsequently lack the informational tools necessary to analyse the capital needed to invest in their mining operations, not to mention the appropriate machinery[45].

4.0 Discussion of Findings

4.1 Legal and Institutional Framework Governing the Issuance of Mining Rights

The mining sector is highly regulated with a wide range of statutory instruments ranging from **extraction, processing and trading regulations to health and safety regulations.** The main regulatory framework governing Zambia's mining sector falls under the **Mines and Minerals Development Act No. 11 of 2015, as read together with the Mines and Minerals Development (Amendment) Act No. 14 of 2016 which deals with mining rights, licences,**

43. Oduro, A., & van Staveren, I. (2015). Engendering economic policy in Africa. Feminist Economics, 21(3), 1–22
44. The International Institute for Sustainable Development (2018). Women in Artisanal and Small-Scale Mining: Challenges and opportunities
45. African Minerals Development Centre (AMDC). (2015). African women in artisanal and small-scale mining (Special report). United Nations Economic Commission for Africa. Retrieved from https://www.uneca.org/sites/

large-scale mining in Zambia, gemstone mining, health and safety, environmental protection, and geological services on analysis, royalties and charges. Other pieces of legislation include the Mines Acquisition (Special Provisions) Act No. 2 of 1970.

Ministry of Mines and Minerals Development

The main regulatory framework governing Zambia's mining sector falls under the Mines and Minerals Development Act No. 11 of 2015, as read together with the Mines and Minerals Development (Amendment) Act No. 14 of 2016

The Ministry of Mines and Minerals Development is the regulator of all mining activities. In order for a person to acquire a mining right or licence, an application must be made to the Mining Cadastre Office under the Ministry of Mines and Mineral Development. A major requirement before a licence can be issued is to conduct a survey of the land on which the mining activity is to be conducted. It is important to note that ASM licences are restricted to individual citizens of Zambia, cooperatives and citizen-owned companies with at least 50.1% of its equity owned by Zambians. This is a critical provision to guarantee locals' participation in the industry. **However, such provisions are not available to guarantee the inclusion and participation of women in ASM through a specific quota allocation towards the issuance of mining rights.** Similar quotas have been implemented in the acquisition of land, with 50% of available land being reserved for women.

An excavated pit of amethyst in Mapatizya

4.2 Ownership of Mining Rights

Mining rights refer to the authority granted under the Mines and Minerals Development Act No. 11 of 2015 to prospect for minerals or carry out mining operations. All mining rights are acquired by application to the Director of Mines Cadastre by submitting a prescribed form and paying the prescribed fee by either an individual or a company. Mining rights are granted on a first-come, first-serve basis by either the Director of Mines Cadastre or the Director of Geological Survey, where the application meets the requirements of the Act. The Act also provides non-mining rights, which are a mineral processing licence, mineral trading permit, mineral import permit, mineral export permit and a gold panning certificate. Furthermore, the period for which a mining licence is granted depends on the category or class of mining to be undertaken. Artisanal licences are valid for two years, while small-scale licences are valid for ten years.

There were challenges in ascertaining the number of women involved in ASM as the sector has largely remained informal, and the Mining Cadastre does not have a provision to register the gender of an individual or composition of the entity applying for mining rights in the case of a cooperative or business.

A mine worker displaying quartz in Lumezi

Although there are minimum set standards for local participation through 50.1% equity owned by Zambians, this does not guarantee the effective inclusion of women in ASM. **Therefore, setting quotas for the inclusion of women in mining enterprises as part of the procedure of obtaining licences could play a critical role in advancing the ownership of mining rights among women in Zambia.** The Mines and Minerals Development policy can draw lessons from the 2021 National Lands policy that placed a quota on the land distribution of 50% of available land for alienation being reserved for women and 20% for the youth and persons with disabilities. This pronouncement was in line with promoting gender equality and socio-economic inclusion of women, the youth and persons with disabilities as envisaged in the National Gender Policy, National Youth Policy and National Disability Policy.

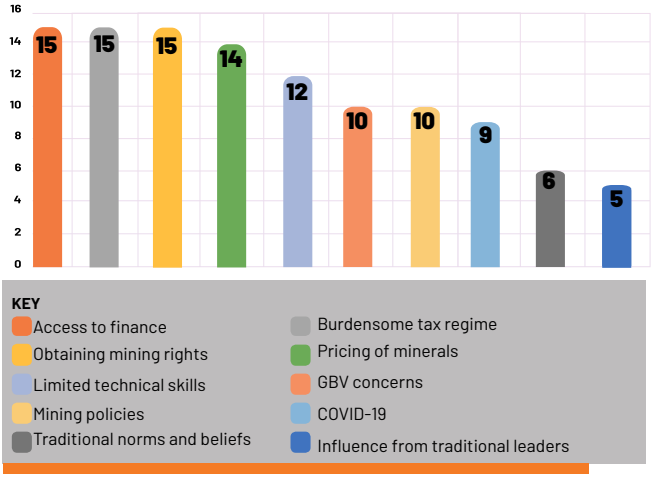
Adopting similar provisions in the Mines and Minerals Policy would help advance the participation of women in ASM by mainstreaming mining licences for women. Although the findings of this study suggest that gender disparities in ASM exist, the extent to this effect cannot be ascertained due to a lack of gender-disaggregated data in the issuance of mining rights and the informality that characterises the sector. Additionally, this study

found that a lack of provision for greater inclusion of women in mining, such as access to credit and limited technical skills, could contribute to the inadequate participation of women in the sector. Therefore, the mining policy should provide specific quotas for issuing mining licences and design a Cadastre system with gender-specific indicators to enhance the collection of gender-disaggregated data to promote the uptake and operations of women-owned mining enterprises. This measure will equally support women's economic empowerment.

4.3 Challenges for Women in the ASM Sector

Myriad challenges exist that pose a barrier for greater participation of women in the ASM sector. These include gender disparities in access to, control over and benefit from resources; gender-based violence (GBV) in and around mining sites; limited access to information, finance, technology and personal protective equipment; inadequate technical skills and gender stereotypes; as well as women's limited economic, social and political power, among others.

Figure 2: Number of women and barriers in ASM



The figure 2 represents the challenges faced by women in ASM. Of the 15 female miners that participated in this study, all of them indicated that they had significant challenges with access to finance, they all said obtaining mining rights was a challenge in relation to the cost licence fees attached to it such as Environmental Impact Briefs and ZEMA

certification, 15 indicated that the tax regime was burdensome, 14 indicated that pricing of their minerals was exploitative, 12 highlighted challenges with regards to limited technical skills and knowledge of good mining practices to enhance their productivity, 10 highlighted GBV concerns as a barrier for women to penetrate the sector, 10 also indicated that mining policies did not adequately mainstream gender, 9 of the women revealed that COVID-19 had a significant impact on their productivity, 6 indicated that traditional norms and beliefs had an impact on women's participation in mining activities and 5 revealed that influence from traditional leaders was a potential barrier for women to penetrate ASM.

PMRC team viewing amethyst pit in Mapatizya

Pebble stones mined as industrial minerals in Siavonga

A. Inadequate Technical Skills

Mining is a highly technical field and requires understanding good mining practices and access to geological information, which is crucial for productivity. Knowledge of processes such as exploration, extraction and processing, among others, requires some level of training in order to develop the requisite skills. However, most women engaged in ASM lack training in technical skills such as Mining Engineering, Geology, Surveying, and Metallurgy. Participants of this study revealed that they decided to engage in ASM out of interest but that they did not have the relevant training before-hand and had to learn their way through the process. Majority of the women had a background in fashion and design. Thus, they mostly relied on training opportunities through associations such as the Association of Zambian Women in Mining and capacity-building training organised by the United Nations Development Programme (UNDP).

It was found that the lack of technical skills posed a barrier for women to penetrate the sector or effectively benefit from it. **The lack of access to these technical skills coupled with lack of financing, had negatively impacted their productivity. It was also found that artisanal mining activities were driven by poverty and viewed as a "get rich quick" type**

of business therefore majority of the operators that would be termed as illegal miners lacked basic knowledge on the need for mine planning and understanding environmental project briefs.

Further, the lack of technical skills contributed to limited compliance with health and safety regulations, thus posing a danger to health and safety at mining sites. Compliance with regulations was also impacted due to the informality of operations in the sub-sector. The cost of personal protective equipment (PPE) was revealed to be a challenge for women, especially those mining in rural areas. Similarly, inadequate knowledge and understanding of the importance of PPE posed a challenge for ASM miners, especially women, to adhere to health and safety regulations. As such, women risked exposure to toxic and hazardous conditions due to inadequate technical knowledge.

Additionally, the lack of geological information posed a barrier for ASM to quantify the minerals underground, which is critical for access to investment and mine planning. It was found that the high cost of generating such information was limiting productivity. Participants in this study indicated that women needed to be trained on how to conduct mining and on proper mine setup. Although the women interviewed noted the need for periodic engagement of geologists, some indicated that they could not access geologists due to the high costs of specialised technical services. Despite both women and men lacking geological information, women are more disadvantaged given their limited education and technical skills. Thus, there is need for deliberate efforts to enhance access to geological information and technical skills among women.

B. Cost of Obtaining Mining Rights

The cost of obtaining an artisanal licence is K900, while small-scale licences cost K4,500. According to the participants of this study, the cost of obtaining a mining licence was relatively affordable. However, they did recognize that obtaining these licences was still a challenge for many people, such as those in rural areas. On the other hand, the accompanying processes required to obtain mining rights were cited to be significantly costly.

Other cost licence fees such as the Environmental Project Brief could cost about K60,000, among other regulations and licences such as certification from Zambia Environmental Management Agency (ZEMA) which costs K13,000, pegging certificate costs K7,000, business licence fees and mineral royalty fees, consequently impact the formalisation of

default/files/PublicationFiles/women_in_artisanal_and_small_scale_mining2015_en.pdf

ASM. These processes were found to be costly for ASM in general and more so for women who disproportionately lack access to finance. Thus, some miners would opt to engage in illegal mining or partner with potential investors. However, there was an indication that such partnerships were seldomly mutually beneficial to indigenous people who, in some cases, would sell off the land or be displaced by investors.

The study also found that limited education and technical skills posed a challenge for compliance with licensing requirements. The lack of education and knowledge to undertake the process of obtaining a mining licence was also a contributing factor to the reluctance to formalise operations and non-compliance to health and safety regulations. Interviews with research participants revealed that the process was bureaucratic due to the number of submissions needed for the pre-application and post-licensing phase before operations could commence. Participants added that they had to process their mining licences in Lusaka. **Therefore, there is need to devolve the processing of mining licences at the provincial level and streamline licensing procedures to improve compliance. Alternatively, the use of Information Communication Technology (ICT) in applying for mining licences could help decentralise the process by automating and digitising the Mining Cadastre system; this would also help the department effectively monitor the application process and reduce turnaround time by integrating other institutions such as Ministry of Lands, ZEMA, PACRA and ZRA to aid formalisation and coordination.** These findings are similar to studies[46][47], which found that licensing regimes were poorly designed and cumbersome in that licensing processes required applicants to travel to national or provincial capitals in order to apply for one.

46. Spiegel, S. (2015). Shifting Formalising Policies and Recentralization of Power: The Case of Zimbabwe's Artisanal Gold Mining Sector. Soc & Nat Res. 28, 543–558.
47. Hilson, G., Hilson, A., Siwale, A., Maconachie, R., 2018. Female faces in informal 'spaces': Women and artisanal and small-scale mining in sub-Saharan Africa. Africa Journal of Management 4 (3), 306–346.

Filing in contract documents

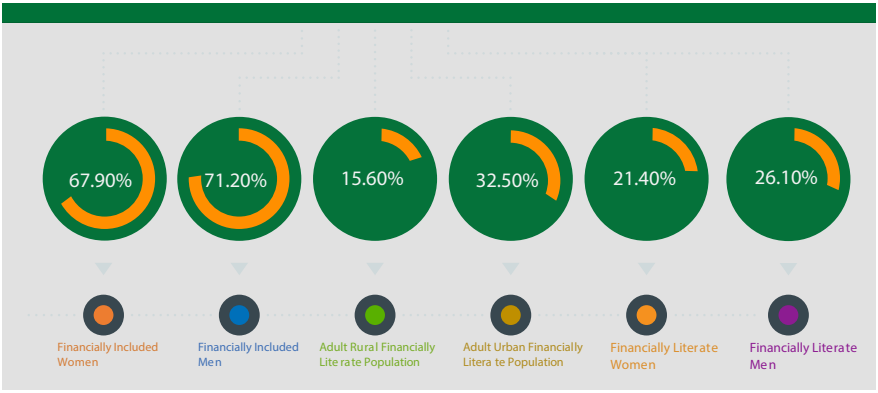
C. Limited Access to Financing

Mining is a capital-intensive industry requiring adequate investment in machinery, equipment and technology but more so in human capital with the right technical skills. The challenges women face in ASM are interlinked and reinforcing; for instance, the lack of access to finance and knowledge impacts the type of machinery, technology and information needed to implement good mining practices adequately. Further, the inability to access finance was also due to low literacy levels and inadequate technical skills, posing a major barrier to accessing investment among some groups of women. This is evidenced by the findings of the 2020 Finscope survey, which indicate that due to lack of collateral, lack of proper documentation and low income, among others, about 57.2% of women are denied access to microfinance loans.

Further, low financial literacy rates among women negatively impacts their ability to develop bankable proposals and seek financial assistance. Similarly, inadequate access to relevant geological information that is able to ascertain the quality and quantity of

mineral deposits on their sites inhibits them from exploiting available financing options. The Finscope survey also revealed that women, particularly rural women, remain the most financially excluded segment of the population. Gender disaggregated data indicates that 67.9% of women are financially included against 71.2% of men. Further, 15.6% of the adult population in rural areas are financially literate, against 32.5% in urban areas. On the gendered front, 26.1% of men are financially literate, against 21.4% of women. In terms of savings held with banks or other financial institutions, the survey found that only 36.2% held savings.

Figure 3. Financial Inclusion and Literacy Rates

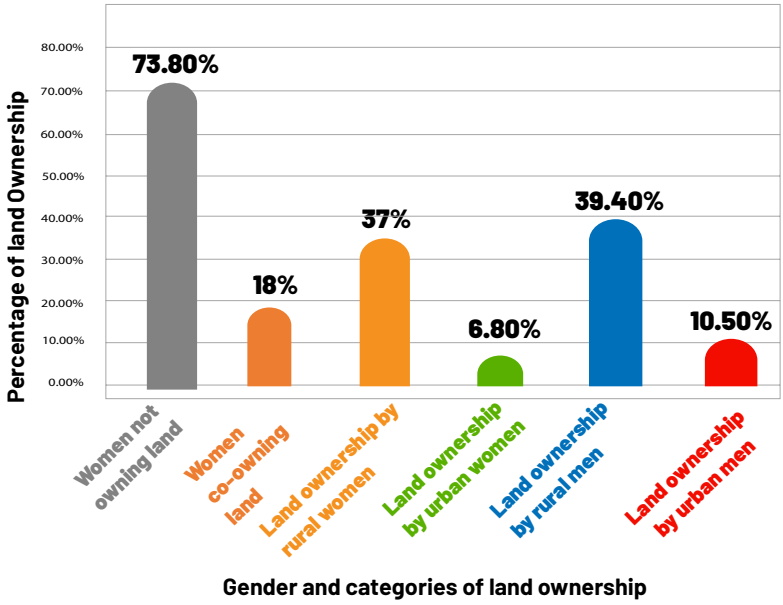


Source: Finscope Survey (2020)

These findings are an indication that more women, particularly in rural areas, have inadequate financial literacy and are further excluded from benefiting from credit and saving opportunities thus, this has a negative impact on their ability to access financing necessary to invest in ASM activities. Furthermore, this is compounded by their lack of collateral due to inadequate access to opportunities to own valuable assets such as land or land titles necessary for acquiring loans through financial institutions. According to the Zambia Demographic and Health Survey (2018), about 73.8% of women do not own land, while only 18% have co-ownership of land. On the one hand, women remain the least likely to own land compared to their men counterparts, and on the other hand, ownership of land by women in rural areas is higher than that of women in urban areas at 32.7% and 6.8%, respectively[48].

48. Ministry of Gender-" Gender Status Report 2017-2019"

Figure 4. Gender Disaggregated Data on Land Ownership



Source: Gender Status Report (2017-2019)

Moreover, this study found that despite women slowly gaining an interest in organised mining and penetrating the sector, they lacked access to capital, thus hampering their participation, investment and productivity in ASM. Limited capital to invest in machinery also meant that mining was highly seasonal, with limited capacity for production during the rainy season, thus further affecting their profitability. The women interviewed indicated that mining is considered a high-risk capital venture by financial institutions such as banks because it can take long to reach the production stage, in some cases 5 to 10 years. Thus, access to credit was a major challenge. This consequently limited their ability to hire essential machinery such as excavators, dump trucks and bulldozers.

While one of the miners in Mapatizya revealed that it costs them at least K100,000 for a round trip to transport an excavator and bulldozer on site. In addition, the cost of hiring the machinery was charged hourly, which was negotiated to K10,000 per day, while they spent about K18,000 daily to fuel up the two pieces of equipment they used on site to enable them to run for at least 8 hours. Another miner in Mumbwa indicated that they needed at least K2 million to establish their mining operations, and another in Lufwanyama revealed that they needed at least $30,000 to invest in their site to reach production. These investment costs are a potential barrier to productivity due to limited financing options in ASM and could further exclude women from engaging in the sector.

Although ASM is an opportunity for locals to own this sector because this is where locals can take centre stage, access to finance remains a major challenge. This study also found that although Zambia has some of the best emeralds in the world, the lack of resources to exploit these minerals by local citizens was limiting the development of local communities and livelihoods. For instance, the emerald gem field in Lufwanyama had over 400 mining licences issued to locals. Still, the majority of them were dormant due to a lack of capital needed to invest in production.

A miner operating an excavator in Mapatizya

The majority of the participants recommended the need for the Ministry of Mines and Minerals Development to set up a fund that would assist women in enhancing their productivity in the sector. Exploring blended financing options by engaging the private sector could help improve access to financing, machinery and technology. This could help mitigate the challenges women face in the sector by de-risking the potential threats through the provision of the necessary geological information and skills development. **Given the 2023 budget pronouncements to allocate K50 million to support ASM with affordable financing and equipment, there is need to ensure that at least 50% of**

this fund is allocated towards women-owned enterprises. This will help address the financing challenges women face in the sector.

With regards to market linkages and value addition, it was also found that these were established through mining associations and networks with the international market, but inadequate capital to invest in machinery and processing equipment, such as cutting and polishing equipment for value addition, was limiting their value addition potential. They indicated that they mainly relied on the Gemstone Processing and Lapidary Training Centre in Ndola.

The research participants, particularly those dealing in gemstones, recounted that value addition was a good opportunity for them to expand their business. Thus, they needed more investments in machinery to extract good quality stones and boost their productivity, as they mostly used picks and shovels for excavation. These women stated that appropriate equipment could include drilling machines, jackhammers, excavators, generators, bulldozers and dump trucks, among others. Hence, there is a need to empower more women through access to capital and equipment. This would not only boost their productivity but also has the potential to create jobs and increase foreign exchange earnings from finished products on the international market, such as jewellery and ornaments.

A mine worker displaying quartz in Lumezi

D. Pricing

Mining generally is a lucrative business, significantly when there is enhanced productivity and value addition. This study found that gemstone mining, in particular, was lucrative; however, challenges with pricing was a barrier for miners and traders to benefit from the resource effectively. Participants of this study revealed that local people were not benefiting as much from the minerals they were trading in comparison to foreign buyers due to limited negotiating power. It was also reported that although women had control over the minerals they mined, the pricing limits them from exercising full control over their resources and, to some extent, was exploitative. The participants of this study indicated that there was need to prevent buyers from buying directly from mining sites as this contributed to the exploitative pricing coupled with illegal miners who would push the price down, thus negatively impacting their cost of production. They recommended that the Government needed to regulate the pricing of gemstones in consultation with stakeholders in order to secure maximum benefits for locals that would then plough back the revenue into their businesses and, ultimately the economy. Further, there was need to facilitate structured markets for trading of gemstones. This can be done through mining bureaus in order to decentralise markets as well as enhance the operations of the bureaus which are underfunded.

In the same vein, one of the gemstone miners interviewed revealed that Government was also losing out on revenue from the gemstone industry because of their prime focus on minerals such as gold, copper, manganese, emeralds and cobalt. It was revealed that good quality quartz and aquamarine could attract more foreign exchange into the country as they can sell for approximately $15,000 -$20,000 per ton compared to a tonnage price of copper which averages around $7,705-$11,00 on the international market. Therefore, it was recommended that the Government needed to develop adequate policies that support the Gemstone sub-sector and invest in value addition to meet demands for the resource on the international market.

E. COVID-19

COVID-19 market-related challenges negatively impacted mining activities as business slowed down due to travel restrictions, which ultimately posed a barrier to accessing the international market. The women revealed that this slowed production as they could not conduct mining activities due to a lack of access to the market. Consequently, this also resulted in job losses in some mining sites. One miner in Lumezi indicated that they had to cut down their workforce at the site from 40 workers to 10 in order to cope with the

loss in revenue. However, they have since recalled some staff and intend to recall more as productivity gradually increases.

Majority of the women interviewed, especially those engaged in gemstone mining and trading, indicated that exhibitions were the main market for their minerals, with established market linkages to countries such as China, America, India, Hong Kong, the United Kingdom, United Arab Emirates and Thailand, among others. However, the restrictions on travel due to COVID-19 negatively impacted their business, and they have been struggling to restimulate their investments. Some women indicated that they turned to agriculture in order to sustain their livelihoods during this period; however, it did not yield the desired results.

F. Cultural Norms and Beliefs

Although women have primarily been involved in crushing, sluicing, washing, panning, sieving, sorting, mercury-gold amalgamation, amalgam decomposition and, in rare occasions, actual mining, they were not regarded as legitimate workers in the mines by their male counterparts who regarded them as intruders. There was a self-reinforcing "mine culture" that did not favour women, and since the work is labour intensive, there was a perception that men were better suited to work in the sector. Consequently, women were often side-lined even when they were part of a cooperative with men as their partners. It was also revealed that the majority of ASM activities were taking place in rural areas where women have continued to be undermined due to socio-cultural norms.

This study found that culture had to some extent, negatively influenced the participation of women in ASM. It was revealed that there were some traditional beliefs that prevented women from entering mining sites during their menstrual cycle for fear that this would lead to the minerals 'disappearing'. In the North-Western province, for instance, women were only allowed to do the panning of gold while men entered the mining site. Cultural beliefs such as this have the potential to exclude women entirely from participating and benefiting from ASM activities by virtue of their gender. Consequently, this also limited their control over the resource in the sense that women could not monitor the activities they had invested in due to lack of access and entry into the sites. Similarly, women were typically not associated with gemstone trading as there were attitudinal perceptions that the business was not credible since it was socially constructed as a "crooked business".

The study also found that some roles in mining sites were assigned based on gender. For instance, women were expected to cook and fetch water while men conducted mining operations on-site. This further limited their control of the resources in cases where

their male counterparts would not disclose their findings. Practices such as this had the potential to reduce women's income in mining sites since their work was generally undervalued. These practices also reinforced social and economic inequalities. Therefore, there is need to challenge these gendered norms and traditions in order to enhance the roles of women in ASM.

G. Influence from Traditional Leaders

Another major barrier that was identified is the influence of traditional leaders in the acquisition of mining licences. As part of the procedure to obtain mining rights, consent should be obtained from the traditional authority within the area. It was found that consent from traditional authorities was subjective and that if the traditional authority did not like an individual, consent could be denied. In the same vein, some women highlighted challenges with obtaining consent, particularly from the Chewa Trust, as there were some costs attached to it. One of the study's participants indicated that they had held a gold exploration licence since 2020 but had been facing challenges with acquiring consent from the chief for a mining licence, who was requesting about $10,000 as an application fee for consent. They indicated that this has been a major barrier for them to proceed with mining activities and acquiring certification from ZEMA. Hence there was need for the Government to develop a clear policy on consent fees payable to traditional authorities.

H. Gender-Based Violence (GBV) and Labour Exploitation

Men largely dominate mine sites and, in some cases, are characterised by violence and sexual exploitation. This has led to apprehension among women to penetrate mining sites. It was revealed that many ASM activities were taking place informally, and women working in the informal economy would tend to carry their children to the sites; hence there were concerns about child labour. Some key informants revealed that there were alsso concerns about GBV, sexual violence, labour exploitation and the use of child labour in some mining sites. Hence, there is need to increase awareness and measures to address these challenges in order to guarantee the safety of women and children in mining sites.

I. Inadequate Mainstreaming of Gender in Mining Policies

This study found that although the Government had been encouraging women to obtain mining licences and engage in mining activities, such as through the provision of 10% of the Black Mountain being reserved for the Association of Zambian Women in Mining and

through the facilitation of training programmes under the United Nations Development Programme (UNDP), the study's participants stated that there were inadequate strategies to engage more women in the sector. It was found that many women were operating informally and, therefore, could not benefit from the various programmes being implemented. The study found that the majority of women in ASM had limited motivation to formalise activities within the sector due to the prohibitive fiscal regime and licensing fees. **Hence, there is need to promote women's active and successful participation in the sector through gender mainstreaming in licence issuance, where provisions and incentives aimed at streamlining the licensing processes, such as waiving off certain fees provided that the applicant meets at least 80% of the requirements to obtain a licence could help enhance the participation of women in ASM. Furthermore, clearly stipulated quotas on the number of licences targeted towards women or women-led enterprises could have a positive impact on fostering women's participation.**

The inability to disaggregate data on the issuance of mining rights by gender was a major barrier for effectively developing strategies that would enhance the participation of women. It is critical for mining policies to develop gender-responsive indicators that can help track the progress made in enhancing the participation of women in ASM. Secondly, there is need to employ gender sensitivity in access to loans and grants.

The various participants of this study noted that the Government needed to set up a deliberate empowerment mechanism for women in ASM that would respond to the lack of funding, support, skills training and access to geologists in order to boost production and encourage a conducive environment for women to thrive in the sector. **For more sustainable support to women in ASM, there is need to explore blended financing options that offer a range of products such as capital, machinery and technology by engaging the private sector. This could help respond to the financing challenges facing women in the sector.**

Additionally, the provision of such incentives would enhance women's participation across the mining value chain from decision-making to ownership of mines and trading. Incentives such as training, mentoring, finance and market linkages could help encourage more women to engage in mining activities. Similarly, the placement of quotas in the management structures of cooperatives could encourage more women to participate, especially at higher levels such as decision-making.

Further, mining regulations need to include specific steps to help protect the role of women in the formalised artisanal mining sector. There is a need to design clear processes for the inclusion of women at each stage, from registration through the licensing process. Barriers to women's economic roles within the sector must continue to be reduced so that women can expand their role in production (mining) and as traders, cooperative leaders and exporters.

Awareness raising and advocacy efforts on women's participation in ASM needs to emphasise the value of equitable access to mining, micro-loans to support mining-related services, and minerals market information. **Additionally, advocacy efforts must lobby for comparable pay for their production, roles recognition, and mechanisms to assure women's safety so they can reap the economic benefits of their labour in a formalised sector.** To effectively mainstream gender in mining policies, key informants recommended that the **Government needed to engage with various stakeholders, including women miners, to understand their position in ASM, which remains undocumented.**

J. Burdensome Tax Regime

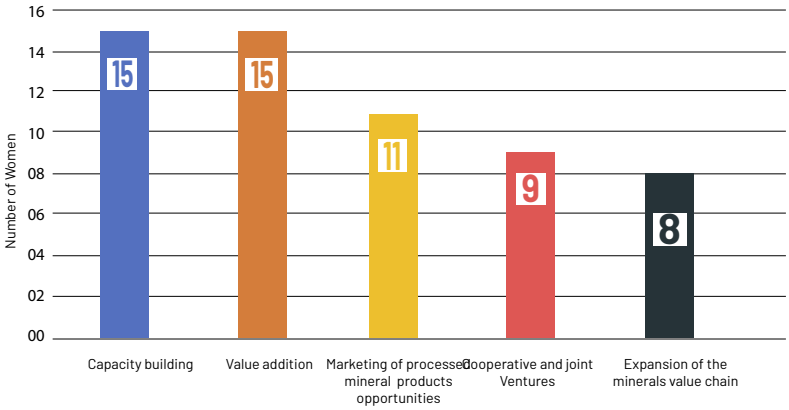
This study found that formalisation was viewed as a burden among some players in ASM because it did not present adequate benefits for players in ASM, more particularly for women, as this only reduced their earnings. The study revealed the need to develop a tailor-made tax regime to suit the ASM sector and further incentivize women in the sector. Studies suggest that the provision of tax incentives could encourage more women to formalise their activities, especially in the artisanal subsector. Some stakeholders also revealed that incentives were necessary to grow the sector, especially for rural communities that discover these minerals but may not have the means to process licences and invest in production.

In the 2023 national budget, the Government proposed changes to the mining tax regime from corporate income tax to a presumptive tax for the ASM sector. This would impact gross turnover less mineral royalty paid at the applicable turnover rate. Although this is progressive, stakeholders in this study were of the view that the tax regime applicable to ASM could be simplified further to 1% of mineral royalty to enhance compliance and encourage formalisation. Furthermore, there was need for the tax administration to be digitised and payable through mobile money services to enhance compliance.

4.4 Opportunities for Enhancing Women's Participation in ASM sector

Women's participation in economic activities such as ASM plays a critical role in fighting poverty and inequality as well as presents opportunities for job creation and value-addition[49]. It is, therefore, essential that women actively participate in mining activities in order to improve their livelihoods and also influence and contribute to revenue generation and governance of natural resources. ASM presents opportunities for women to engage in mining activities. Zambia is endowed with numerous mineral resources that can be exploited. There is a growing opportunity to tap into non-traditional minerals such as gemstones and industrial minerals, among others.

Figure 5: Number of Women and Opportunities in ASM



Note: 15 women in ASM participated in the study

The figure above represents a summary of the various opportunities that exist to enhance the participation of women in ASM. Out of the 15 women that participated in this study, 15 indicated that **capacity building** was necessary to enhance the participation of women in ASM, 15 also indicated that **value addition** was a critical aspect for enhancing women's engagement in the sector, 11 revealed that **marketing of processed mineral products such as jewellery and ornaments was an important** source of income and a platform for women to participate in ASM. 9 women viewed **cooperatives and joint-ventures as a viable strategy for increased participation of women and 8 considered the expansion of the mineral value chain** through the promotion of industrial minerals as a potential avenue for increased participation of women in ASM.

49. Springer, J., Campese, J. & Nakangu, B. (2021). The Natural Resource Governance Framework: Improving governance for equitable and effective conservation. https://doi.org/10.2305/IUCN.CH.2021.16.en

A. Expansion of the Mineral Value Chain

Zambia is endowed with a variety of mineral resources spread across the country. Promoting non-traditional minerals such as gemstones, pebble stones, granite, aggregate, flat stones, clay, limestone, gypsum, and feldspar, among others, are key minerals that women can exploit. Additionally, the promotion of industrial minerals presents a good opportunity for women as these are minerals that are easy to identify and can be found on the surface, which may not require much capital investment and machinery in comparison to minerals that require underground extraction, such as emeralds.

A miner displaying jewellery made from amethyst and silver

Similarly, the ease of entry into ASM is an opportunity for women to engage in mining without many requirements. However, women need to be supported to encourage formalisation in order to effectively contribute to the sector, which is a driver of the economy. This can be promoted as a space for more women to thrive through increased access to financing, machinery, technology and geological information necessary to boost productivity.

Government has been supporting the mineral value chain through the establishment of business linkages in order to facilitate value addition and processing of minerals. The Ministry of Small and Medium Enterprises and the Ministry of Commerce, Trade and

Industry will be instrumental in this quest. As envisaged in the 8NDP, the promotion of value addition will positively impact the livelihood of artisanal and small-scale miners in that they can generate more revenue from processed minerals. This is also critical for supporting the growth of the local economy and communities in which these activities occur. The mineral value chain's processing side will enhance innovation and create more sustainable jobs for women and youth within the mining community.

B. Value Addition

The processing of minerals for value addition is a critical component to increase revenue generation and is an important opportunity for women to derive economic benefits from ASM activities. Supporting the development of initiatives in value addition and processing for local content utilisation is a field where women are thriving, and ASM is able to absorb more women. There is need to increase opportunities for women to earn income through value-added livelihood opportunities beyond ASM, which is inextricably linked to reducing poverty in artisanal mining communities. Additionally, investing in processing centres such as the Gemstone Processing and Lapidary Training Centre in Ndola across the country are critical aspects of promoting value addition to local minerals. These centres also offer jobs and income generation opportunities for women and youth who can be trained in processing and value addition to minerals such as Amethyst, Tourmaline and Quartz, among others. The reduction of income tax rate for lapidary and jewellery facilities in the gemstone industry to 25% from 30% in the 2023 national budget is commendable to the promotion of value addition. However, there is need to support local fabricators to design and build cutting and polishing equipment locally. This move will help support the local manufacturing of equipment and foster innovation.

Processed minerals into jewellery at the Gemstone Processing and Training Centre in Ndola

C. Marketing

Opportunities in ASM have been gradually expanding to complement the mining of various materials, such as gemstones and Silver, for the development of finished products, which are then promoted on the international market. Many women in mining have extended their income base to include selling finished products such as jewellery and ornaments from gemstones such as Amethyst, Quartz, Tourmaline, Malachite, Amazonite, and Citrine, among others. The majority of participants in this study have attended exhibitions across the world. This also helps link them with potential investors in their mining operations and source for larger markets for their products. Similarly, the local market has been growing steadily. However, it was noted that there was need for sensitization of the local market to value and promote local products.

The growing opportunities in the marketing of local minerals presents an avenue for women to engage with the ASM sector to trade local products and increase their revenue generation. It was also revealed that this opens up market linkages for female entrepreneurs who may not be miners themselves but are able to generate an income for improved livelihoods. This, in turn, boosts miners' productivity as there is increased demand for raw materials.

D. Joint-ventures and Cooperatives

Organised small-scale mining is an opportunity for women to participate and derive benefits from the sector. Especially if they partner with skilled personnel trained in mining fields, they would be better placed to understand their operations and requirements in order to maximise their benefits. Joint ventures and cooperatives are a potential avenue that could help address the challenges of financing within the mining sector, as members could pool their resources or attract capital through joint ventures.

A study[50] suggests the need for Government support and the actualisation of the formation of cooperatives among gold artisanal and small-scale miners across the country in order to improve their viability. In the same vein, there is a need to provide relevant information and build the capacity of miners on how to effectively run joint ventures and cooperatives to guarantee the benefits of all members. The deliberate strategy by the Government to call for formation of cooperatives could help address the challenge of formalisation and create a conducive environment for ASM to thrive, particularly among women. Further, incentives such as improved access to machinery and financing through the K50 million under the Ministry of Mines and Minerals Development towards the operations of ASM will boost the sector. Therefore, it is envisaged that this fund will be accessed in an equitable manner and will help invigorate the ASM subsector, particularly to bolster productivity in the emerald gem field in Lufwanyama, where majority of the licences have remained dormant.

50. Banda, W. (2020). Appraisal of Zambia's artisanal and small-scale gold mining sector. A joint report by the Centre for Trade Policy and Development (CTPD) and the University of Zambia (UNZA). School of Mines. Lusaka: CTPD and UNZA.

The PMRC team viewing amethyst boulders

E. Capacity building

The need for technical skills development as well as soft skills such as negotiation, business management and leadership skills is crucial for enhancing the participation of women in ASM. Women are more likely to participate in greater numbers and play more significant roles if they have fair access to and control over land and subsurface minerals, financing, and decision-making surrounding land use at the local level. With support from cooperating partners, the government has developed various projects to support women's growth in the sector through initiatives such as the African Caribbean Pacific- European Union (ACP-EU) minerals development project. This project, housed at the Ministry of Mines and Minerals Development, is supported by the EU and UNDP. The project aims to train and build capacity of small-scale miners in low-value (developmental minerals) ,on issues such as mine and quarry management, environment, health and safety, entrepreneurship skills, market analysis and investment promotion, and geo-data

and map designs. Such initiatives that provide skills development through education and training should be encouraged as an economic empowerment tool for women as it will build their capacity and confidence to freely make their mining claims, share ideas and perspectives, as well as enhance their productivity in ASM.

These highlighted benefits and others can be achieved through platforms that provide like-minded women the necessary experience and well-structured capacity-building, training and networking programs such as the Women's Economic Empowerment in Artisanal and Small-Scale Mining (WEE in ASM) initiative supported by Oxfam; the Association of Zambian Women in Mining; Bainetu Women in Mining Zambia; Gemstone Miners and Jewellery Traders Marketing Association; and Civil Society Organisations (CSOs), among others. Similarly, the Extractive Industry Transparency Alliance (EITA) has been instrumental in providing training, skills development and mentorship of women artisanal miners. According to EITA, a significant number of women are involved in ASM, where they are actively engaged as labourers, processors and traders, thus needing more support to enhance their productivity.

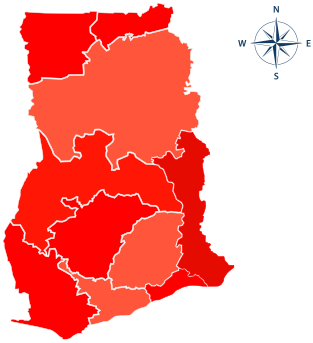
Connecting women's organisations working in the ASM sector to others in the value chain (traders, civil society activists, government authorities, and academics) helps identify key constraints and opportunities for women's empowerment. These networks are the foundation for creating advocacy and leadership positions needed for policy changes. Inviting female artisanal mining actors to national and international conferences, as the World Bank has done in the DRC, is a step towards enhancing the participation of women in ASM to share experiences. Similarly, Oxfam Zambia has in the past supported exchange programmes to other countries among women in ASM, particularly in countries such as Ghana, for women to learn about gold mining. Such efforts should be strengthened and replicated.

5.0 Best practices for women in Artisanal and Small-Scale Mining

Ghana

Artisanal and Small-Scale Mining

- Women in Ghana contribute approximately up to 51 percent of the work force inn the mining sector.
- Ghana promotes more women's participation in mining through foundations and institutions such as Gold Fields Foundation.
- Golden Line project engages artisanal and small-scale mines to improve women's participation in the sector through training and sensitization activities.



Women in Ghana contribute approximately up to 51 percent of the workforce in the mining sector. Ghana promotes more women's participation in mining through foundations and institutions such as Gold Fields Foundation, Golden Line and Solidaridad. Gold Fields Ghana Foundation boasts some of the best female talents in the mining sector in the country[51]. The company's major focus is promoting gender equality in the workplace by providing employees with equal opportunities and outcomes, including equal remuneration for work of equal or comparable value. It also encourages women's participation in the sector through an improved workforce by removing barriers and providing full and genuine access to all occupations for women, including leadership roles.

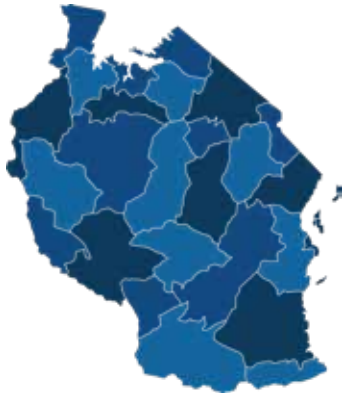
The Golden Line Project engages artisanal and small-scale mines to improve women's participation in the sector through training and sensitization activities centred on women's health, gender equality, women's rights and responsible practices[52]. Solidaridad, on the other hand, introduced the Village Savings and Loans Associations (VSLA) scheme to economically empower women in the mining sector and help them develop a savings culture, access credit, increase their investment choices and achieve financial inclusion.

51. Gold Fields Ghana Foundation, "Women in Mining". Ghana (2022). Retrieved from https://www.goldfields-ghana.com/women-in-mining.php
52. The Golden Line, (2022). "Realise and show the potential of women in mining communities". Ghana. Retrieved from http://www.thegoldenline.org/

Tanzania

Artisanal and Small-Scale Mining

- Tanzania has made commendable steps which includes the designation of exclusive areas for ASM
- Decentralisation of the licensing process.
- Facilitating skills acquisition programs for artisanal and small-scale miners.



Tanzania has made commendable steps toward formalising the ASM subsector. Some notable steps the country has undertaken include the designation of exclusive areas for ASM, decentralisation of the licensing process, provision of Government grants and facilitating skills acquisition programs for artisanal and small-scale miners. This progress has been made possible through a well-structured policy, and legal mining framework, which has transformed the role of Government from an operator and owner to a regulator and facilitator[53]. Prominent policies and legislations governing the ASM sub-sector in Tanzania include the Mineral Policy of 2009, which supports and promotes the development of small-scale mining, gender inclusivity and mineral marketing systems, among others. Others are the National Gender Policy of 2002, the National Land Policy of 1997 and the National Environment Policy of 1997. In terms of legislatives, the Mining Act (2010) is the principal legislation governing all mining activities in the country. The Act contains provisions for issuing mineral rights for ASM, such as the provision of grants, conversion, renewal and allocation of minerals to ASM designated sites. Other legislatures include the Occupational Health and Safety ACT (2003), Environmental Management ACT (2004) and the Land Act No. 4 (1999).

53. Delphinus, K., Graham, M., Willison, M. V., & John, B. T. (2018). Artisanal and small-scale mining in Tanzania - Evidence to inform an 'action dialogue

South Africa

Artisanal and Small-Scale Mining

- The female workforce has risen from just **2%** in 2002 to above **13%** today.
- The Council and its members have set targets to at least double the percentage of women in mining by 2025 and ultimately work towards **30%** to **40%.**

Until the 1990s, legislations prevented South African women from working in underground mining[54]. But today, South African mines are leading the way regarding gender diversity[55]. The female workforce has risen from just 2% in 2002 to above 13% today[56]. The rise in the female workforce is attributed to the mining legislations such as the Mineral Act (No. 50 of 1991) and the targets laid out in the mining charter[57]. Among others, the objectives of the Mineral Act are to 'promote equitable access to the nation's mineral and petroleum resources to all the people of South Africa' and to 'substantially and meaningfully expand opportunities for historically disadvantaged persons, including women, to enter the mineral and petroleum industries and to benefit from the exploitation of the nation's mineral and petroleum resources.

Other initiatives that have propelled gender inclusivity include deliberate measures by the South African Mineral Council (association of mining companies) aimed at creating thriving women in mining culture by raising awareness on gender bias. The Council and its members have set targets to at least double the percentage of women in mining by 2025 and ultimately work towards 30% to 40% women representation across the industry and 50% in management over the next decade[58]. Currently, 24% South African women seat on the boards of the top 100 global listed mining companies and 21% of South African women seat on the boards of the top 500 global mining companies[59].

54. AngloGold Ashanti. (2007). Annual Report to Society, 'Case study: Women in mining - on track to meet targets in South Africa',
55. http://www.anglogold.co.za https://miningforzambia.com/5-things-didnt-know-women-mining/
56. Minerals Council South Africa. (2019). Women in mining in South Africa: Fact sheet. https://www.mineralscouncil.org.za/industry-news/publications/fact-sheets/send/3-fact-sheets/738-women-in-mining [accessed 14 November 2019].
57. Ranchod, S. (2001). 'Mining and society: Gender and mining - workplace', Final report compiled for the African Institute of Corporate Citizenship and Mining Minerals Sustainable
58. https://www.mineralscouncil.org.za/
59. WIM (UK) and PWC. (2013). Mining for talent A study of women on boards in the mining industry.

Similarly, the Government has committed itself to strengthening university "pipelines" for mining as a profession for women. At the University of the Witwatersrand, female students make up approximately 35% of the mining engineering class[60].

Summary of Lessons Learnt

- Reform mining policies to improve gender inclusivity in the sector by adopting clear gender targets in ASM.
- Enhance incentives in ASM, such as provision of Government grants, machinery and skills development programmes for miners, particularly women. Decentralise the licensing process.
- Designate areas for ASM activities to improve targeting, formalisation and organisation of the sector.

6.0 Conclusions

The findings of this study revealed that the ASM sub-sector in Zambia is largely informal, compounded by various barriers for women to benefit from the sector effectively. However, the ease of entry also offers opportunities for greater participation of women through formalisation, value-addition and the provision of incentives that support women engaged in ASM.

This study's findings suggest that dominant tendencies that perpetuate gendered practices and norms are obstacles for larger economic benefits for women in ASM zones. Notwithstanding the challenges affecting livelihood practices and opportunities for both women and men in ASM, these challenges are seemingly higher for women than men. Therefore, the study concluded that gender disparities exist in Zambia's ASM sector, with women facing significant barriers. However, the lack of gender-disaggregated data in the Mining Cadastre limits the assertion of the extent to which these disparities exist.

60. https://miningforzambia.com/5-things-didnt-know-women-mining/

With regard to ownership of mining rights, the study found that there are no gender considerations in the issuance of mining licences. To this effect, mining licences were granted on a first-come, first-serve basis, provided the application met the requirements of the Mining Act. However, this could pose potential challenges to increased participation of women in the sector if no quotas or gender considerations are made at the licensing phase. Hence there is need to consider placing a quota similar to that guaranteeing the participation of Zambians in the sector through the equity of 50.1%. Therefore, the study concluded that outlining gender considerations in the issuance of mining licences could potentially improve the participation of women in the sector.

Barriers such as inadequate technical skills, inadequate access to finance, the costs attached to obtaining mining rights, cultural norms and gender-neutral mining policies impacted the participation of women in ASM. The study's findings revealed that these barriers were mutually reinforcing, thus impacting women's productive potential and revenue generation in ASM. The study, therefore, concluded that there was need to adequately address challenges such as inadequate access to finance, geological information and technical skills in ASM through a stand-alone mining policy, as well as to develop gender-responsive indicators that would track the progress in enhancing women's participation in the sector.

Activities contained within ASM, such as trade and value-addition, also present opportunities for women to engage in the sector. The ease of entrance into ASM offers women and youth an avenue to generate income through value addition, trade in finished goods such as jewellery, as well as to explore various minerals, particularly industrial minerals that may be less capital intensive. Processing and value addition have the potential to improve the livelihoods of women in communities where mining takes place as well as offer a livelihood beyond ASM, particularly for women who may not be well placed to conduct mining or own mines due to the financing risks involved. This study also concluded that cooperatives and joint-venture models were critical for women to explore the sector as these models help share the capital risks.

Additionally, enhancing the technical skills of women through capacity-building programmes is an effective strategy for encouraging more women to participate in ASM. Further, formulating supportive policies through the creation of national action plans that address gender equality in the mining sector could improve the outcomes and productive

potential of women in ASM. Similarly, enhancing access to geological information and markets, providing incentives such as tax incentives and easing formalisation standards while addressing challenges in accessing capital is critical for boosting the participation of women in mining activities. This study concluded that there was need to establish a fund under the Ministry of Mines and Minerals Development as well as explore blended financing models through the private sector in order to improve access to finance and machinery necessary for women to enhance their productivity in the sector. Further, there is need to ensure gender equity in access to the K50 million fund under the Ministry of Mine & Minerals Development.

In conclusion, this study's findings revealed that gender disparities exist in the ownership of mining rights and that this impacted the productive potential due to inadequate access to finance and machinery and geological information, which were highlighted as significant barriers for women in ASM. However, it was also established that the sector presented numerous opportunities for women to benefit from the mineral endowments in their communities and generate an income from these resources. Finally, strengthening policy frameworks through the inclusion of gender-responsive indicators in mining policies could play a critical role in enhancing women's roles and their participation in the sector.

7.0 Policy Recommendations to Stimulate Women Empowerment in the ASM Sector

Notwithstanding that women in ASM are not a homogenous group and therefore experience the highlighted challenges and opportunities resulting from this study differently, appropriate strategies must be designed to target specific audiences to provide the best possible approaches. It is also important to note that although the challenges impeding women's effective participation in ASM are intertwined and mutually reinforcing, addressing these individually could provide a suitable framework to advance women's economic empowerment in ASM.

This study, therefore, proposes the following interventions:

- General to the ASM sector, the Government is urged to develop a stand-alone mining policy for the ASM and mineral-specific strategies to identify and address the challenges faced within the subsectors effectively. Further, the Government is urged to increase funding towards geological surveying of the country and explore private sector investment towards this. This will help map the country's mineral resources,

identify new mineral sites and ascertain their quantity, and provide a clear road map for their exploitation. In the same vein, developing strategies for value addition could help expedite the establishment of provincial centres for processing and value addition, such as Lapidaries. Additionally, this could increase opportunities for women to earn income through value-added mineral processing in order to improve their livelihoods beyond ASM.

- Findings from the study suggest that the Government should consider to expedite the establishment of a directorate for ASM under the Ministry of Mines and Minerals Development in order to address specific challenges facing the sector.
- The Government should consider expanding initiatives to formulate and communicate supportive policies and best practices for gender equality in the ASM sector by creating national action plans that address gender equality in the mining sector. These policies should address the challenges women face in ASM and adequately mainstream gender affirmative practices in licence issuance, building the technical capacity of women, and improving access to geological information, financing and markets.
- To this effect, the Government is urged to consider streamlining the licensing processes, such as waiving off certain fees provided that the applicant meets at least 80% of the requirements to obtain a licence. This could help enhance the participation of women in ASM, particularly rural women.
- Government is urged to support women-led ASM businesses, cooperatives and networks through the provision of incentives such as tax incentives, easing of formalisation standards, streamlining regulations and mining licence procedures, improved access to finance through the establishment of a fund at the Ministry of Mines and Minerals Development, improved access to technology as well as extractive and processing machinery, among others. Further, Government is urged to ensure that the K50 million allocated towards ASM is distributed in a gender sensitive manner among players in the sector. These incentives could encourage the formalisation of women-led enterprises in ASM and spur productivity necessary for economic growth and job creation.
- Additionally, in the 2023 national budget address, the Government committed to supporting players in the ASM sector to access the necessary equipment and training to increase their production capacity as well as ease access to affordable capital. Given the 2023 budget pronouncements to allocate K50 million to support ASM with affordable financing and equipment, there is a need to ensure that at least 50% of

this fund is allocated towards women-owned enterprises. This will help address the financing challenges women face in the sector.

- Stakeholders in ASM are urged to address structural impediments such as cultural and gender norms that continue to undermine women's participation in decision-making, access to resources and economic participation in productive sectors such as mining.
- There is need for stakeholders in ASM to develop a safe and well-coordinated abuse report mechanism in mining sites, inclusive of abuses that unduly affect women.
- Government is urged to provide adequate funding for research and knowledge sharing to fill the gap about women's unique place in the ASM sector, which has remained largely undocumented.

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APPENDIX

Appendix1A: Number of People Employed in the Mining and Quarry Sector

Industry	Employed Population		
	Total	Male	Female
Mining and Quarrying	59,371	54,740	4630.4

Appendix 2A: Number of Women in ASM and their Barriers

Barriers	Number of Women
Access to Finance	15
Obtaining mining rights	15
Traditional norms and beliefs	6
Pricing of minerals	14
Limited technical skills	12
GBV concerns	10
Inadequate gender mainstreaming in mining policies	10
COVID-19	9
Influence from traditional leaders	5

Appendix 2B: Number of Women in ASM and their opportunities

Barriers	Number of Women
Capacity building	15
Value addition	15
Marketing of processed mineral products	11
Cooperatives and joint-ventures	9
Expansion of mining value chain	8

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