



**CHALLENGES OF SMALL-SCALE MINERS  
TOWARDS SUSTAINABLE RURAL LIVELIHOODS  
IN WARD 22, CHEGUTU DISTRICT, ZIMBABWE**

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**Abstract:**

The mining industry has always played a key role in Zimbabwe's economy in pre-colonial, colonial and post-independence eras. Historical records show that by the 13<sup>th</sup> century AD, there was evidence of gold mining in the country. During the fifteenth and sixteenth centuries, a lucrative gold and ivory trade was underway between the Portuguese and the Munhumutapa empire (Mpfu, et al., 2009). During the late 19<sup>th</sup> century, the country was occupied by pioneers of British South African origin (under the protection of the BSAP). Gold mining was the major incentive for these colonizers. Each of the pioneers was promised 3 000 acres of land as well as fifteen gold claims (Mpfu, et al., 2009). According to Bulpin (1968) rumours had been spreading in South Africa that across the Limpopo River gold could be found hanging on tree branches. Though unfounded, such stories added impetus to every white man who dreamt of getting rich quickly to join the pioneers in their migration to the new colony. Since independence in 1980, some sixty minerals have been mined in Zimbabwe including gold, copper, tin, chrome, iron ore, asbestos, coal, lithium, diamonds and platinum (Munowenyu, 1996). To date, mining contributes over 90% to the country's GDP. However, it is also a major source of income for rural communities that rely on gold panning in order to earn a living. Although the activity is regarded as illegal it contributes significantly to rural livelihoods. Gold panners usually sell their gold to Fidelity Printers and in return get US dollars for each ounce of gold sold. Due to their lack of technology, gold panners cause a lot of environmental damage which is worsened by their use of mercury in their activities. Mercury eventually spills into rivers and streams thereby poisoning water sources and the aquatic life therein. This study exposes the economic activities of small-scale miners in rural Chegutu Ward 22 (Zimbabwe) and their implications on sustainable development.

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## 1. Introduction

Zimbabwean literature abounds in cases of gold, chrome and diamond panning activities which have a bearing on sustainable development (SD). Nyoni (2019) examines how gold artisanal mining poses a threat to the environment in the Mashava area with negative effects on human health. Diseases such as malaria, HIV and TB thrive under these unsanitary conditions. He recommends the formalization and legalization of gold mining activities so as to reduce the informal nature of these activities which promote negative environmental effects. In addition, he calls for the introduction of environmental education among gold miners.

Munyoka (2020) has also examined the contamination of water sources, land degradation, air pollution and deforestation with reference to the Mapanzure area in the Zvishavane district. However, in spite of these challenges chrome and gold panning provide rural folks with a means for livelihood that is quite handy at a time when the economy fails to provide any other alternatives for a decent living.

In Mberengwa the Dohwe river has been contaminated due to the mercury used by gold panners who use the chemical in their extraction activities. Efforts by the environmental management agency (EMA) to stop this activity have failed due to the influence of corrupt government officials in Harare. In the Chegutu area, ordinary villagers rely on gold panning for a livelihood. Although gold panning is a lucrative business its negative impacts on the environment is incalculable.

## 2. Mining and Legislation at the Global Level

At the global level mining is a leading industry providing raw materials, supporting construction, innovation, electricity generation and food production (<https://core.ac.uk>). Mining legislations are quite variable across the world. In Australia, each state has its own laws which regulate the mining industry such as the granting of mining rights, provision of permits, licences or leases. In Chile, there is no single regulating authority. However, the judicial branch of government agencies is directly involved in granting exploration and exploitation. In Mexico mining contributes 2.4% of the GDP to the nation. In 2018 it employed some 381 000 jobs and 2.3 million in indirect jobs. In Mexico, the mining law promotes the utilization and reclamation of lands that have been negatively affected by exploration. In the USA mining is governed by the 1872 legal framework which encourages both domestic and foreign companies to conduct operations without any restrictions (Miller, 1996). On the other hand, in Zimbabwe, the Mines and Minerals Act (Chapter 21:05) is one of the most powerful pieces of legislation in the country. As an instrument that seeks to attract investors in the country it cannot be challenged by the country's environmental watchdog namely the Environmental Management Agency

(EMA) of 2007 (ecolex.org/details legislation/mines and minerals act Chapter 21:05). Once a licensed prospector has identified a potential mineral even inside a private property, he/she is authorized to establish a mine without the consent of the property owner. Such a legal instrument encourages environmental degradation throughout the country.

### 3. Research Methodology

This research was preceded by literature review which gave a sound background to the study. This secondary source of information included the study of such documents as books, journal articles, newspapers, government acts and magazines. This exercise provided a preliminary source of information that paved the way for other research methods. A pilot study was then conducted in order to expose the areas under investigation. These were identified and mapped in preparation for the data collection exercise which followed. Interviews and questionnaires were then administered in order to collect the necessary data. The target area was rural Chegutu Ward 22 where gold panning is rampant. The data were assembled and analyzed in the preparation of the write-up.

### 4. Discussion and Analysis

This study reveals the male dominance of gold panners in the Chegutu district. In general, the activities involved are masculine in nature. They include digging deep into the ground and conducting the panning process using mercury to separate the gold from the ore. This is a highly risky job that can lead to accidents and sometimes death. In some cases very deep pits are dug out and left open and unprotected thereby posing a threat to human beings, livestock and wildlife. However, in spite of these dangers, some women are prepared to risk their lives and health by participating in this industry (Table 1). The largest percentage of women involved in gold mining is to be found between the 25 and 40 age groups. Most male panners are also found in the same age category. Beyond the age of 40 only 10% of the respondents are involved in the activity. It is interesting to note that most panners are family people who struggle to earn a living through this risky activity. For this reason, it is obvious that gold panning is a crucial source of household income in the study area.

**Table 1:** Gender differences among gold panners (n=40)

Age	Sex		Percentage
	Male	Female	
15 to 20	2	1	7.5%
25 to 30	13	4	42.5%
30 to 40	10	6	40%
40 & above	3	1	10%

The other issue examined in this study was the level of education among gold panners (Table 2). Some 27.5% of the sample have gone through primary school while 47.5% are secondary school graduates. The remaining groups include post-high-school (10%) and university graduates (15%), respectively. The participation of the latter group of people indicates the significance of the gold panning sector in the district and at the national level. Unemployment rates in Zimbabwe have been estimated at over 90%. As colleges and universities continue to churn out graduates every year most of them end up seeking refuge in the informal sector including gold panning. It is crucial for the government to consider the formalization of the small-scale gold mining sector so as to provide it with the necessary skills and technology thereby preventing the hazards associated with informal gold panning activities (including river pollution, accidents and general environmental degradation).

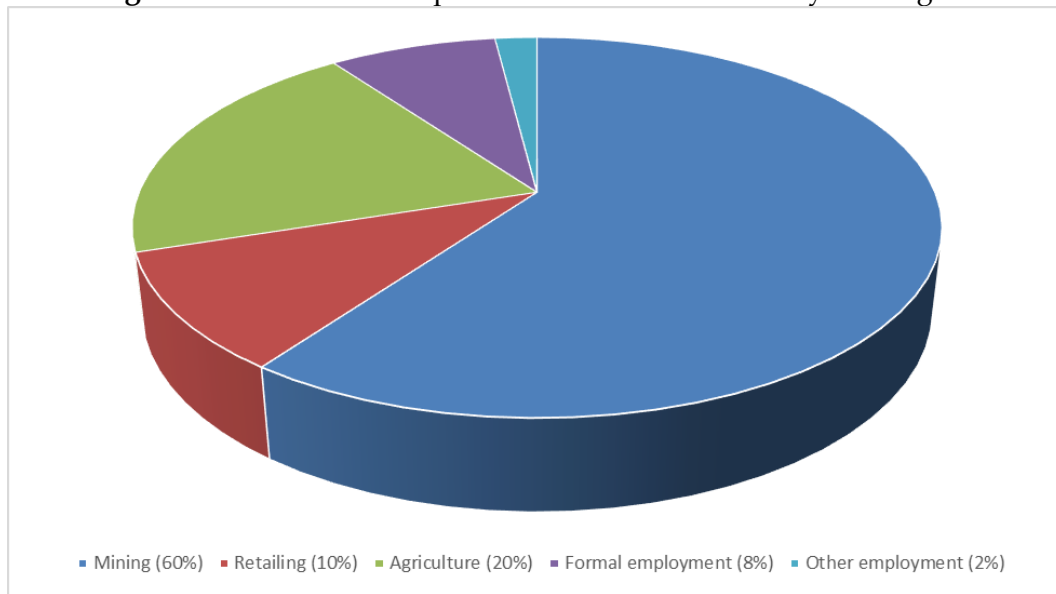
**Table 2:** Level of education among the miners

Level of education	Number of respondents	% of respondents
Primary education	11	27.5%
Secondary education	19	47.5
High school	04	10%
University education	06	15%

It is crucial to consider the livelihood options of gold miners/panners in rural Chegutu (Figure 3). They include gold panning (60%), retailing (10%), peasant agriculture (20%) and other forms of formal employment (8%). It is obvious that gold mining/panning contributes the lion's share of the economy. Although this sector is regarded as illegal by the government it is actually the base of the rural economy, a fact that most policymakers often choose to ignore. Since the sector employs over half of the rural folks' the government would do well to take it more seriously than at present.

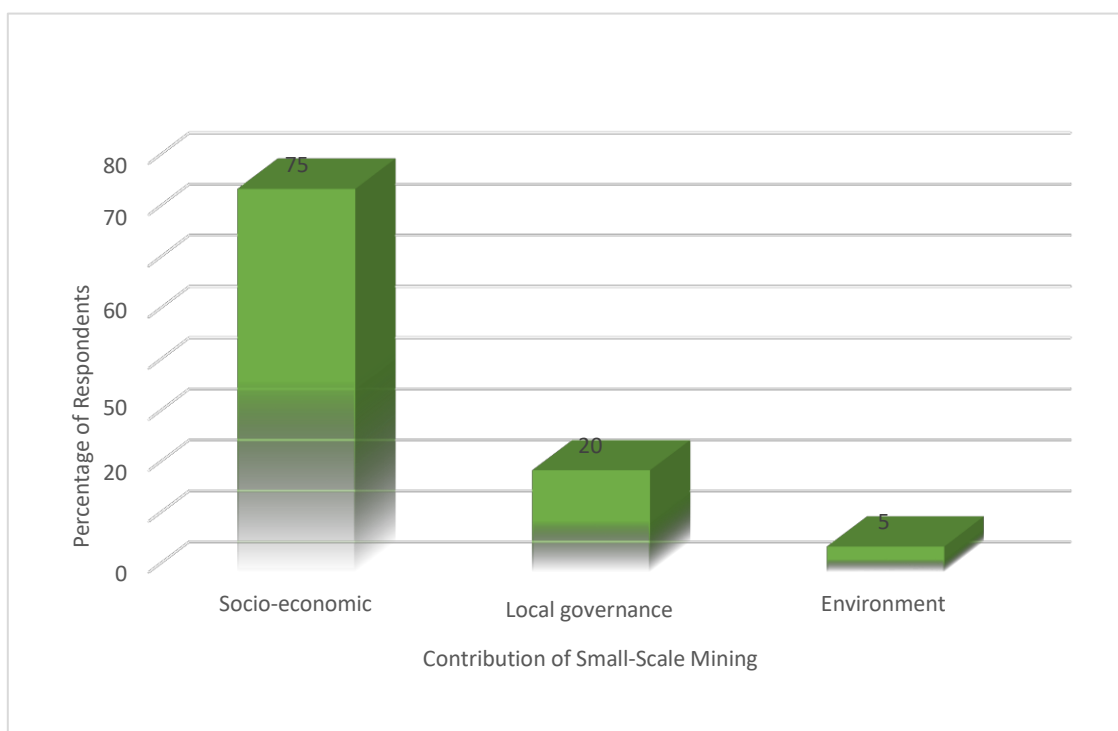
Obviously, failure to consider such action is tantamount to postponing a potential environmental disaster. The sustainable development (SD) concept demands quick action so that the environment is not damaged beyond repair. Mining, if properly conducted can lead to sustainable rural livelihoods. Given the necessary technology and continuous monitoring from conservation officers, small-scale mining can contribute towards sustainable rural livelihoods. However, in the past several mining operations have closed down leaving ugly pits which have become death traps for human beings, livestock and wildlife.

**Figure 3:** The livelihood options of the rural community in Chegutu



The contribution of small-scale miners is also summarized in Figure 4. The income from small-scale miners boosts the rural economy in various ways including providing markets for local shops, paying school fees for children and reducing rural-urban migration to the major towns and cities. The local authorities also benefit from revenue derived from local small-scale miners. Other benefits include infrastructural developments in remote areas such as roads and first aid clinics necessitated by emerging settlements in these areas (Plates 1-4).

**Figure 4:** Contribution of small-scale mining to rural livelihoods (n=40)



**Plate 1:** Contributions made by small scale mining in the community



**Plate 2:** Community Development Project



**Plate 3:** First aid clinic for miners and the community

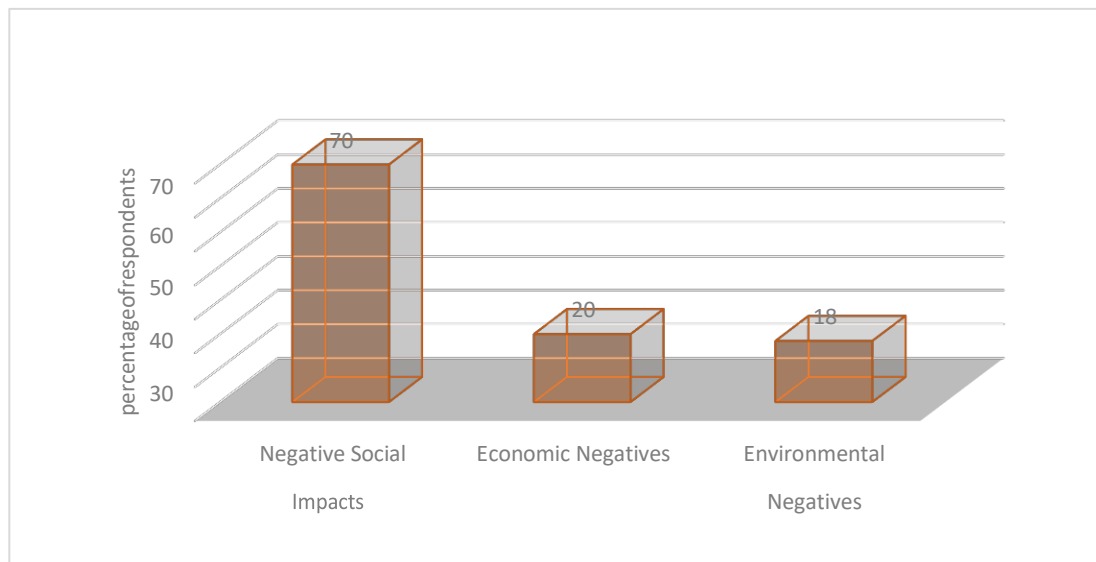


**Plate 4:** Vehicles and shops of individual miners



The negative effects of small-scale miners include social, economic and environmental challenges as indicated below (Figure 5). Lack of protective equipment has an impact on miners' health while environmental damage due to mercury (a heavy metal) spills into rivers and streams as well as underground water sources which endangers the health of creatures including human beings. However, it would appear that positive impacts outweigh negative ones.

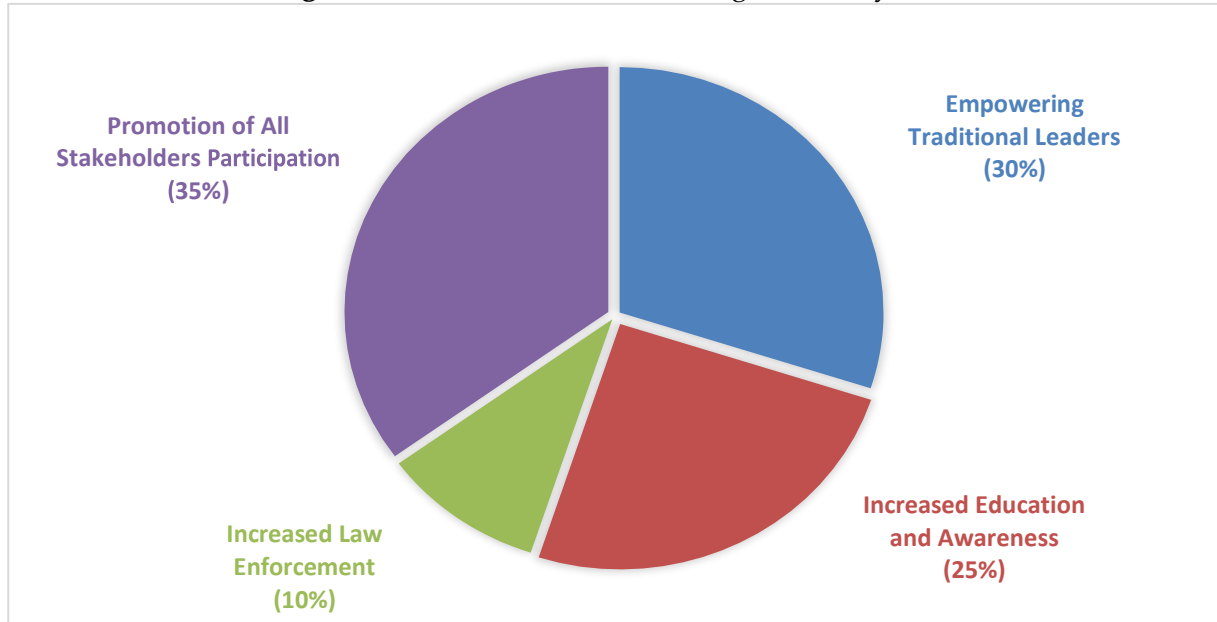
**Figure 5:** Negative contributions brought by small-scale mining to rural livelihoods (n=40)



Several measures can be recommended to address the challenges mentioned above. They include the promotion of an all-stack-holder participation, empowering local authorities such as traditional leaders like chiefs and headmen as well as councilors in the quest for a united approach to solving emerging challenges. One of the hurdles that have occurred in the past has been the government's use of top-down approaches in addressing local challenges. A more favorable approach is the bottom-up strategy whereby the local people are directly involved in addressing their issues with the support

of government agents. Figure 6 shows the measures which are employed to address the challenges confronting gold miners.

**Figure 6:** Measures to solve challenges faced by miners



The study has also exposed the various organizations that have a link with small-scale miners. They include: the public sector, institutions, local authorities, NGOs, the private sector, and the business sector (Figure 7). This multi-sectoral link has an impact on government policy on the issue. The policy-makers should not turn a blind eye to this reality and adopt more cooperative policies on small-scale miners and their operations.

**Figure 7:** Institutions involved in small scale mining in Ward 22

Public Service Sector	Institutions	Local Government Authority and Community	NGOs	Private Sector	Business Community
-MoPSE --ZRP	- EMA - ZINARA - NASSA - Ministry of Mines - Ministry of Cooperatives - Ministry of Health - Ministry of Small Scale and Medium Enterprises - Ministry of Youth	- MP - CRDC - Chief - Councilor - Headmen - Village head - local farmers - rest residence	-nil	- Private millers	- General Dealer Shops - Bottle stores - Grinding mills - Hardware Enterprises - Butcheries



## 5. Conclusion

This paper has examined the role of small-scale miners in gold mining in Chegutu rural area in Mashonaland West (Ward 22). The extent to which small-scale mining contributes to sustainable rural livelihood options has been examined. It has been noted that the industry is male-dominated although women also participate. The male domination is mainly due to the muscular nature of the activities associated with it. Gold mining is the dominant economic activity in the province as it contributes up to 60% of the total household income. It is a source of rural livelihood to the majority of villagers. Employing the majority of youths, it is a factor in reducing rural-urban migration to the major towns and cities.

However, it is associated with several environmental challenges such as: river pollution, dangerous open pits, environmental degradation and the destruction of natural ecosystems which threaten the survival of wildlife species. The study recommends more government support through the provision of environmentally-friendly equipment, the provision of environmental education to the miners through the support of conservation officers and the improvement of such infrastructure as roads, clinics and water supply. Their mines should also be fenced so that animals cannot stray into open pits and get maimed or lose their lives. In addition, government should engage local communities such as chiefs and headmen instead of adopting the prevailing punitive approaches of treating small-scale mining activities as a crime.

### Conflict of Interest Statement

The authors declare no conflicts of interest.

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