



Mapping informal and financial flows in the artisanal mining sector

The cases of Sierra Leone and Liberia



In brief

- Despite being associated with a host of environmental, health and safety and social concerns, the artisanal gold mining sectors in Sierra Leone and Liberia provide essential livelihood support for poor people by supplying valuable start-up capital for other economic activities.
- This research informs evolving efforts to formalise artisanal gold mining in the Mano River Region by mapping informal financial flows in six communities where production is taking place.
- The study monitored 73 miners and supporters who live and work in close proximity to border regions over an 11 month period, employing an innovative methodology involving the compilation of ‘financial diaries’ of those engaged in the sector, as well as others who depend on it.
- The findings reveal that gold is an important mechanism of trans-border exchange, particularly across the Sierra Leone-Guinea border; in both Sierra Leone and Liberia, finance and lending systems remain informal and unregulated, leaving poor people susceptible to exploitation; and market mechanisms for buying gold remain poorly developed and are dominated by informal buyers who operate outside the legal domain.
- This project contributes to an important policy gap, by generating new knowledge about the loss of income in the economy that is channelled into informal flows and the loss of potential government revenue in taxes, both of which are important drivers of economic growth.

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Overview of the research

This research generates critical baseline data on the financial landscapes of artisanal gold mining communities in Sierra Leone and Liberia, the locations of two of West Africa's most dynamic artisanal mining sectors. In doing so, the data generated should go a long way in informing policy mechanisms that aim to support a formalised artisanal sector in both countries and more widely, across sub-Saharan Africa.

The objectives of this study are:

1. To explore how different individuals engaged in artisanal gold mining manage their finances (including in response to seasonal variation and shocks), and to deepen understanding of what contributes to variation in adaptive management, vulnerability and resilience.
2. To examine how the trans-border financial relations of those engaged in artisanal mining (diggers, supporters, buyers and traders) are embedded within social networks, how they are mediated by formal and informal regulatory processes, and what significance this may have for artisanal mining formalisation.
3. To enhance understanding of the quantities of monies being exchanged in the artisanal mining economy (both within countries and across borders), in order to generate more accurate information on how much revenue is being lost through informal channels.
4. To draw upon primary and secondary data to explore the political economy of existing informal and formal financial networks and systems within selected rural localities in Sierra Leone and Liberia, and the artisanal gold mining value chain, including changing characteristics of alternative sources of supply of capital and financial services to this sector.
5. To engage with government, international donors and NGOs in Sierra Leone and Liberia, to explore a range of institutional mechanisms for facilitating better financial inclusion of those engaged in artisanal gold mining, with the aim of improving access to financial services capable of reducing poverty and improving livelihoods (e.g. microfinance services), and to draw upon demand side and contextual data collected to appraise their ability for improving multi-level wellbeing and resilience.
6. To contribute to the development of the 'financial diaries' methodology, through piloting its use for the first time in the context of artisanal mining, the most important rural non-farm activity in sub-Saharan Africa.

Data was collected through an innovative, interdisciplinary mixed-methods research approach at three sites in Sierra Leone and three sites in Liberia,

where trans-border interactions within the artisanal gold mining sector are flourishing. The main research activity during the data collection phase of the project – the compilation of ‘financial diaries’ for 73 artisanal miners and supporters over a period of 11 months – deepened understanding of the socially-embedded micro-financial circuits of individuals living and working in gold mining communities.

Data was collected monthly and entered into smartphones and generated information on two main areas: detailed information that explored the particular financial dynamics of respondents’ livelihoods; and broader life history information that contextualised the financial diary data and illuminated how changes in the financial landscape were affecting respondents’ livelihoods and wellbeing. Rather than simply using the diaries as a conventional tool to understand the financial management of households, the methodology was adapted to generate data that provided insight into a range of detailed livelihood dynamics, and how these were socially embedded in informal networks and how the local circuits of exchange were interlinked with global value chains.

Policy motivation for research

In both Sierra Leone and Liberia, current government strategies for harnessing natural resource wealth have focused on a top-down ‘growth pole’ approach. This focus has, by and large, concentrated on the potential of large-scale mining companies to generate revenue and transform the rural economy. There has, however, been much less focus on mining activities that take place informally at the micro-scale, or how artisanal mining communities can contribute to growth through bottom-up local economic development.

Through the micro-analysis of interconnected informal and socially regulated financial relationships, the researchers believe that this study will have a transformative effect on understandings of current economic and social development strategies, in turn, facilitating the implementation of poverty alleviation policies and growth measures that are more in tune with the needs of the poor. In the process, the study deepens understandings of the trans-border financial landscapes that artisanal gold miners must negotiate. In doing so, the research contributes to the IGC’s ‘State’ theme, specifically by facilitating improved traceability and transparency in a rapidly evolving artisanal gold mining sector industry; its ‘Firms’ theme, by putting poor people at the heart of grassroots industrial development; and by adding a new dimension to IGC’s work on Ebola recovery strategies in Sierra Leone and Liberia.

This project builds directly on an IGC-funded pilot study carried out by the investigators in 2016, entitled, ‘Opening the door to formalization? Small-scale diamond mining and rural economic development in Sierra Leone’. In doing so, the study addresses three policy-relevant knowledge-gaps that were revealed in the pilot project:

1. There is a pressing need for a regional comparative project on financial flows within the artisanal mining sectors in the Mano River Region, since the informal mining economy and the actors that sustain it operate across country borders;
2. In policy discussions that concern the formalisation of artisanal mining, there is a dearth of accurate financial and economic data to draw upon, particularly since most activities/transactions take place in the informal, illegal domain; and
3. There is an urgent demand for a detailed study on artisanal gold mining – most policy discussions and research to date have focused solely on diamonds, and until very recently, gold has largely remained an afterthought for policy makers.

The study directly addresses these three important research gaps, and in the process provides much-needed quantitative and qualitative data to inform both national and regional policies that concern artisanal mining formalisation and economic growth strategies.

Summary of key findings

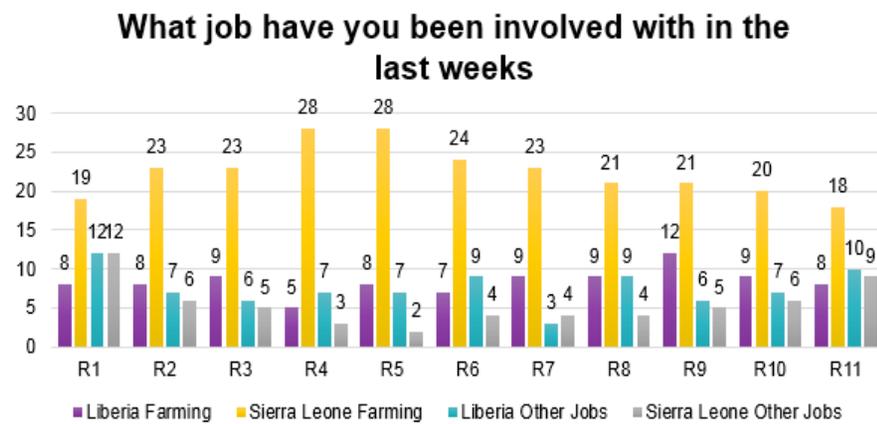
The analysis of data is ongoing, but the initial findings of the study include:

1. Despite being associated with a host of environmental, health and safety and social concerns, the artisanal gold mining sectors in Sierra Leone and Liberia provide essential livelihood support for poor people by supplying valuable start-up capital for other economic activities (Figure 1). Highest gold mining income tended to occur during the dry season months (Nov-May), while earning tapered off during the rainy season (June-Sept), when miners returned to their farms to plant their crops.
2. Within all study sites surveyed, the data revealed that respondents generally managed diversified livelihood ‘portfolios’, engaging in a variety of economic activities over the duration of the year (Figure 2). In particular, mining-farming linkages were strong, with the income generated from the gold mining sector contributing significantly to the farming economy. The financial diary exercise revealed that the farming and mining economies complemented each other, with miners carrying out farming activities throughout the year, and investing a considerable amount of gold mining revenue in farm labour and inputs (Figure 3).

Figure 1: Income earned from gold mining across all sites in each country

	Sierra Leone		Liberia	
	Average Earning per Round (SL Leones)	Total Earning per Round	Average Earning per Round (Liberian Dollars)	Total Earning per Round
Feb 2018	5,409,375	16,055,000	154,852	420,700
Mar 2018	8,985,000	26,540,000	170,677	527,200
Apr 2018	2,960,313	8,811,000	178,866	544,200
May 2018	3,065,219	9,152,000	67,500	173,500
June 2018	2,594,125	7,827,000	36,512	111,000
July 2018	2,640,226	7,876,000	59,516	178,600
Aug 2018	2,655,484	7,955,000	42,480	130,000
Sept 2018	2,719,710	8,119,000	47,520	144,500
Oct 2018	2,648,097	7,924,000	69,519	208,000
Nov 2018	2,801,724	8,246,000	66,958	195,000
Dec 2018	2,826,594	8,480,000	87,160	256,000
Totals		116,985,000		2,888,700

Figure 2: Rural livelihood activities at study sites in Sierra Leone and Liberia (Feb 2018-Dec 2018)



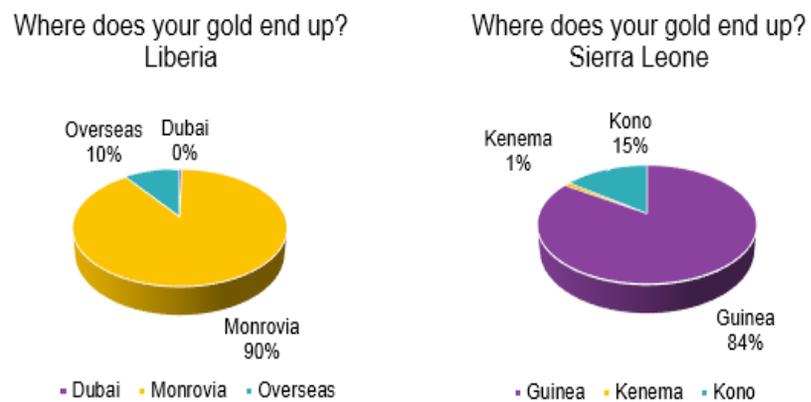
- The findings revealed that gold is an important mechanism of trans-border exchange, particularly across the Sierra Leone-Guinea border. Many respondents in Sierra Leone described how gold was used as a form of currency in Guinea. The close proximity to the border made it possible for miners and supporters to cross into Guinea and exchange

gold for merchandise, which would then be brought back into Sierra Leone to sell or trade.

Are you loan from the person you sell your gold products to?		
	No	Yes
July 2018	1	30
August 2018	0	31
September 2018	0	31
October 2018	0	31
November 2018	0	29
December 2018	0	32

- In both Sierra Leone and Liberia, finance and lending systems remain informal and unregulated, leaving poor people susceptible to exploitation. In Sierra Leone, respondents were asked about lending arrangements between the months of July-Dec 2018, and almost all respondents reported that they received loans from gold buyers, which they repaid over time in gold (Figure 4). Conditions for the loans varied, but it was clear that buyers were paying below market rates for the gold, in exchange for their loan services

Figure 5: Final destination of gold in Sierra Leone and Liberia



- Market mechanisms for buying gold remain poorly developed and are dominated by informal buyers who operate outside the legal domain. Geographical remoteness from urban centres, poor road connectivity to gold buying centres, and the high cost of transportation create dependencies with informal buyers (jullas), who purchase gold from diggers at the point of extraction. In Sierra Leone, the majority of

gold was ending up in Guinea due to the close proximity of sites to the border. In Liberia, it was much easier and less expensive to travel to the capital city, so most gold, it was reported, ended up in Monrovia

Figure 4: Are you receiving a loan from the person you sell your gold to (Sierra Leone)?

Are you loan from the person you sell your gold products to?		
	No	Yes
July 2018	1	30
August 2018	0	31
September 2018	0	31
October 2018	0	31
November 2018	0	29
December 2018	0	32

- As artisanal gold mining is largely informal and unregulated, much income disappears into informal channels, and governments are deprived of substantial revenue that could be captured if effective taxation schemes were in place under a formalised system..

Conclusions and policy recommendations

The formalisation of artisanal gold mining involves moves made specifically to bring illicit operators into the legal domain, while at the same time improving both working conditions and financial inclusion for diggers at the bottom of the chain. This could have a transformational effect on rural livelihoods whilst simultaneously bolstering revenue for government, principally through taxation and export earnings.

In mapping the financial flows that take place in close proximity to border regions in Sierra Leone and Liberia, this research provides a more nuanced understanding of the socially-embedded nature of informal economic systems in gold mining areas. It demonstrates that better access to markets is an important step in reducing miners' dependencies with informal buyers. If more regulated buying systems were put in place, miners would likely receive a better price for their gold, and the government could generate tax revenue at the source of production. This would be a more effective way for the government to generate tax revenue, since the various export taxes between the Mano River Union countries are currently not harmonised, which creates a situation that encourages smuggling across porous and unregulated borders.

There is also an urgent need to support policies and programmes that

create better financial loan systems for miners. Debt bondage and parasitic relationships with buyers prevent diggers from escaping poverty. However, policies that are more fine-tuned to connect with, and ultimately empower the digger financially, could improve the economic position of poor mining communities, whilst simultaneously providing a steady stream of tax to the state.

At the policy level, more research is ultimately required to provide the fine-grained evidence that is needed to inform policy debates on informal artisanal mining, formalisation and income-generation, particularly those which centre on the gold mining sector and rural economic development.