ILLICIT FINANCIAL FLOWS - ARTISANAL AND SMALL-SCALE GOLD MINING IN GHANA AND LIBERIA

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Abstract

Illicit financial flows (IFFs) generated by the artisanal and small-scale gold mining (ASGM) sector in West Africa have historically contributed to conflict and instability, although it would be a mistake to classify this issue as a criminal matter, given its links to formal and informal networks and local livelihoods. This study examines IFFs associated with the ASGM sector in Ghana and Liberia and reveals a complex web of informal and illicit activity associated with IFFs, with detrimental consequences for development. It focuses on gold because of its prominence in the West African Region and artisanal small-scale mining (ASM), rather than large-scale mining (LSM). Further, ASMG is largely informal and consequently more vulnerable to exploitation by criminal networks, and plays a prominent role as a local livelihood. This case study is relatively narrow in focus, providing insights into the nature and scope of ASGM activities and their resulting IFFs, and making several observations on those areas where action could be taken in an effort to reduce IFF risks. The study selected Ghana and Liberia as two countries where research could be conducted, and where gold is a major industry.

Acknowledgments

The recent OECD report, *Illicit Financial Flows: The Economy of Illicit Trade in West Africa* (2018), underlines the importance of better understanding the links between IFFs, development, and globalisation, and works to develop new ways to examine these interconnections. This report contributes to a strategy of the OECD Development Co-operation Directorate to increase data and evidence in the area of illicit financial flows to help address the risks they pose for development. As part of this approach, thirteen illicit economies were analysed, five of which were examined in detail.

This case study on Illicit Financial Flows and artisanal and small-scale gold mining in West Africa is an important contribution to this work, and constitutes one of five case studies produced by the OECD. It was authored by Marcena Hunter of the Global Initiative against Transnational Organized Crime. Launched under the leadership of the OECD Development Assistance Committee (DAC), through its subsidiary body the Anti-Corruption Task Team (ACTT), this work was led by the OECD Secretariat, with substantive editorial support and direction by Catherine Anderson, Team Lead of Governance for Development, and Claire Naval, Policy Analyst, of the OECD Development Co-operation Directorate, Global Partnerships and Policies Division. Our thanks also go to the members of the Reference Group and to Peer Reviewers for, respectively, guiding decisions related to the choice of the case studies and providing valuable comments, inputs and expertise.

The other four IFF case studies focus on the role of Al Qaeda and its affiliates in the Islamic Maghreb; illicit narcotics transiting West Africa; human smuggling from West Africa to Europe; and illicit trade in counterfeit, pirated and substandard goods in Ghana. Please note, the primary research underlying these reports was carried out in 2014-15. Consequently, the problems and the nature of any suggested policy responses may have since changed or evolved. Efforts have been made, where the data is available, to update the analysis and reflect current trends.

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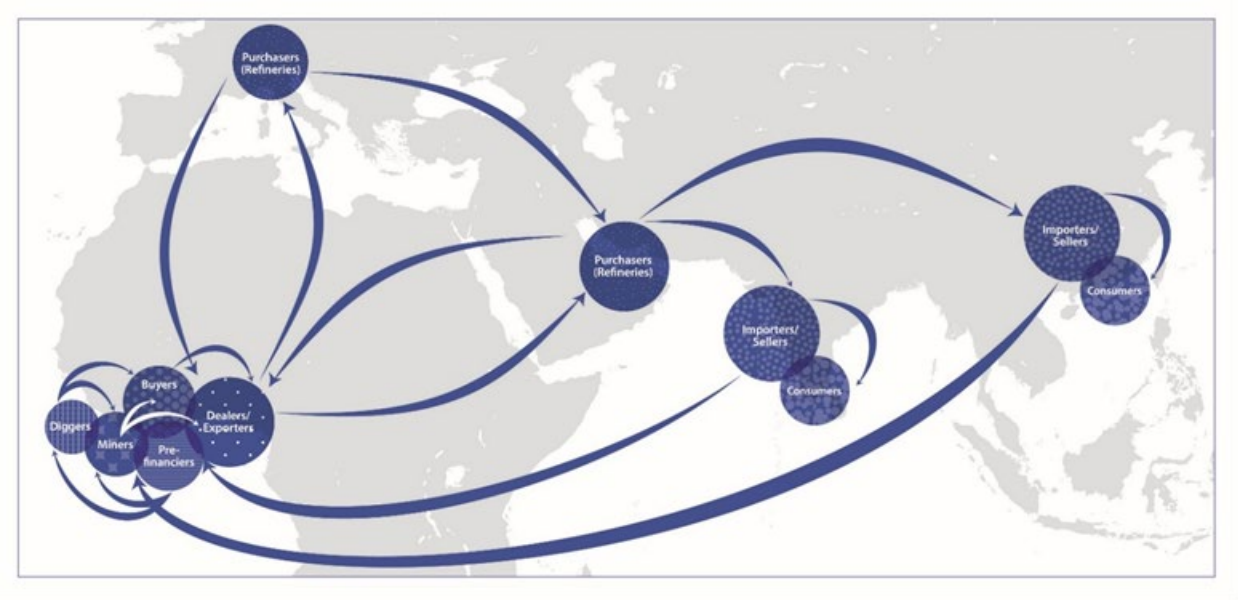
1 Introduction

A large body of literature exists on the direct and indirect links between the exploitation of mineral resources and conflict, including in the West African Region. Open conflict in the region has subsided over the last ten years, and some commentators suggest that international attention to the issue of mineral supply chains in West Africa has waned as a result. This lack of interest is problematic. Mineral supply chains no longer finance conflict in West Africa to the extent seen in previous decades, and yet illicit activity and illicit financial flows (IFFs) resulting from the ASM sector continue to have a detrimental impact on sustainable livelihoods and development in the region.

Gold is mined in nearly every country in West Africa, making it a major regional export, and gold production is expected to grow, with recent estimates anticipating that gold mine production in Africa will increase by an average of about 3% per year until 2019. Most of the increase will likely be in West Africa (Yager et al., 2014). The present study focuses on ASM rather than large-scale mining (LSM) because ASM is largely informal and consequently more vulnerable to exploitation by criminal networks, although Ghana's gold sector tends to be more formalised than that of Liberia or the rest of West Africa. An analysis of both countries (Liberia and Ghana) provides a wider understanding of ASGM flows and the challenges of mitigating the impacts of related IFFs across the broader region (Figure 1.1.). Other relevant studies include a series of studies commissioned by the Organisation for Economic Co-operation and Development with a view to identify and assess potential traceable conflict-free supply chains of ASGM gold in the Democratic Republic of Congo (DRC), Uganda, and Dubai in the United Arab Emirates (OECD, 2015).[1]

[1] These studies have been carried out in the context of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Figure 1.1. Global IFFs stemming from the West African ASGM sector



Source: Figure produced by the author

This case study reviews the nature of artisanal small scale gold-mining (ASGM) in Ghana and Liberia, highlighting key characteristics of the trade, its scale and the underlying factors that cause it to flourish, with the objective of better understanding the links between ASMG, IFFs, and their resulting development impacts.

The analysis draws on interviews with over 35 different sources, as well as an extensive literature and media review. Interlocutors interviewed included state officials, actors from the private sector, academics, independent non-governmental organisations (NGOs), the United Nations (UN) and other multilateral bodies, journalists and think tanks. Interviews were conducted in Accra, Ghana and Monrovia, Liberia from 10 to 23 May 2015, as well as at a small-scale mine site in Liberia. Interviews were also held remotely from April to December 2015. More than 100 sources were reviewed to inform the literature review, many of them referenced by the case study.

The study reveals a complex web of IFFs, forming even before the gold leaves the ground, and in certain cases cyclical in nature. Major conclusions include:

- It is difficult to assess the value of IFFs associated with ASGM and gold smuggling. That said, the study estimated IFFs associated with ASGM and smuggling in Ghana at USD 1.7 billion per year as of 2013. In Liberia, it is estimated that roughly 90% of gold is smuggled out of the country at a value of USD 159 million (using 2013 figures) to USD 455 million (using 2011 figures).
- IFFs associated with the West African ASGM sector are extremely complex. Possible variations to a linear ASGM supply chain include individuals playing multiple roles, financial exchanges skipping actors or creating tangential benefits, and profits being invested back into mining operations. As such, mapping ASGM IFFs in West Africa is challenging.
- As is the case with many forms of organised crime, approaching ASGM and related IFFs as a strictly criminal matter is a mistake. ASGM plays an important role in development. Condemning the sector as a whole would be counter-productive, and would overlook the

sector's importance in providing sustainable livelihood options for the countries' populations. As such, development-focused responses are required.

- Limiting analysis to the role of West African countries and nationals in the ASGM supply chain would omit the immense role and influence played by foreign nationals and entities in the sector. In particular, actors from India and the People's Republic of China [hereafter China], the two biggest gold-consuming nations in the world, play a notable role in the West African ASGM sector. They drive demand for gold and their nationals are involved as miners, buyers and/or exporters.
- The private sector plays an instrumental role in gold supply chains. Positioned at a key bottleneck in the supply chain, refineries play a critical role in developing and implementing due diligence standards and procedures.

2 Nature and scope of artisanal and small-scale gold mining

Key characteristics of ASGM

ASGM in Ghana and Liberia typically takes the form of alluvial mining. Alluvial gold is taken from sand and gravel deposits, most often in or near streams, typically as small but visible pieces of gold (OECD, 2013). The mined material is flushed through a pan or sluice box to obtain concentrations of gold (Figure 2.1). In Ghana and, to a lesser extent, in Liberia, mercury is then added to separate and collect the gold. Mercury binds to the gold to form an amalgam that helps it to separate from rock, sand or other material. The amalgam is then heated to vaporise the mercury, leaving the gold behind (UNEP, 2012). Alluvial gold is easily transported, and may be easily melted and/or semi-refined into small ingots of normally 85-92% purity (OECD, 2013).

Figure 2.1. Machinery used to mine gold in Liberia

Source: Photo taken by the author

The definition of artisanal scale mining (ASM) varies from country to country. A World Bank report characterises ASM as informal, labour-intensive local production with low investment and low levels of mechanisation (CSSM, 2009). Similarly, the International Institute for Environment and Development (IIED) refers to ASM as “mining by individuals, groups, families or co-operatives

with minimal or no mechanisation, often in the informal (illegal) sector of the market" (Hentschel et al., 2003). In the absence of a generally recognised definition, ASM is often characterised by its key features, which consist of:

- low levels of technology and a lack or limited use of mechanisation
- low productivity and recovery values
- lack of safety measures and health care
- lack of environmental protection
- seasonal or periodic activity in response to weather conditions or commodity prices
- low salaries and income that occasionally involve exploitative labour relations.

There is a tendency to equate ASM with "illicit mining". However, the terms "artisanal", "illicit" and "informal" are not interchangeable. Differentiating between "illicit" and "informal" mining depends upon the domestic legislation in place. ASM is illicit where it is (explicitly) prohibited by domestic legislation. When laws and regulations require certain conditions and procedures to be followed, any mineral extraction without corresponding authorisation is then understood as "illicit". When mineral extraction without formal authorisation is not explicitly prohibited "informal" ASM comprises of all operations that do not have an explicit written authorisation to extract the minerals, all permits obtained and all required documents approved. If there is no specific legislation regulating ASM (which allows or prohibits it) ASM is not "illegal", but rather "unregulated" (Hruschka, 2013).

Although the majority of West African ASGM may be illicit, it may be conducted with a high degree of "legitimacy". Recognising the need for a flexible measure of ASM "legitimacy", the OECD produced the *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas* (*OECD Due Diligence Guidance*). The supplement on gold states that when the applicable legal framework is not enforced, or in the absence of such a framework, assessments of the legitimacy of ASM operations will take into account the good faith efforts of ASM miners and enterprises to operate within the applicable legal framework (where it exists). It will also consider their engagement in opportunities for formalisation as they become available (bearing in mind that in most cases, ASM miners have limited or no capacity, technical ability or sufficient financial resources to do so) (OECD, 2013). In both countries it was reported difficult for ASM operators to comply with laws, despite their best efforts. In turn, ASGM operators function with varying levels of "legitimacy".

As in the region as a whole, ASGM in Ghana and Liberia takes place over a wide geographic area. In Ghana, for example, ASGM is conducted throughout the so-called gold belt. This area covers much of the western half of the country (Figure 2.2.). In Liberia, most production is thought to take place in the south-east. However, there are many ASGM locations (Figure 2.3.). These include the Gola Forest region of Grand Cape Mount County, adjacent to the Sierra Leonean border (UNSC, 2013), Grand Bassa County (LBR-Gov-200515) and Grand Cape Mount County (LBR-CivSoc-230515). In addition, there are isolated places that take days to reach (NOR-Analyst-300415). Conservation areas such as Sapo National Park in Sinoe County (LBR-IO-210515) and the Liberian Forestry Development Authority (FDA) are also prominent ASM locations with an estimated 6 000 artisanal gold miners operating in Sapo National Park alone (EPA, 2013).

Figure 2.2. Ghana gold belt

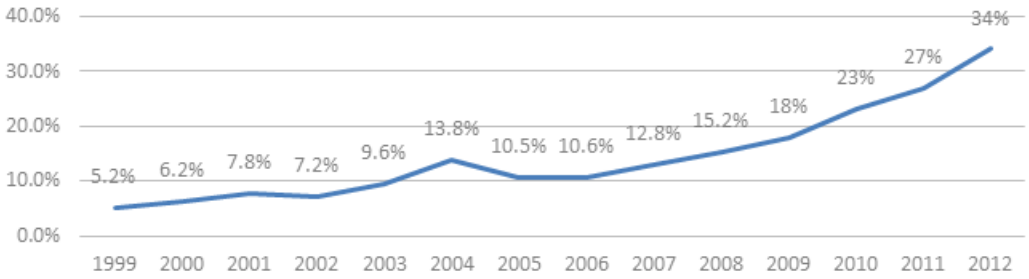
Source: Adapted from HRW (2015), *Precious Metal, Cheap Labor: Child Labor and Corporate Responsibility in Ghana's Artisanal Gold Mines*, https://www.hrw.org/report/2015/06/10/precious-metal-cheap-labor/child-labor-and-corporate-responsibility-ghanas.

Figure 2.3. Map of Liberia by county

Source: Adapted from Forrester, J. et al. (2014), "Assessment of ebola virus disease, health care infrastructure and preparedness – four counties, southeastern Liberia", https://www.cdc.gov/mmwr/pdf/wk/mm6340.pdf.

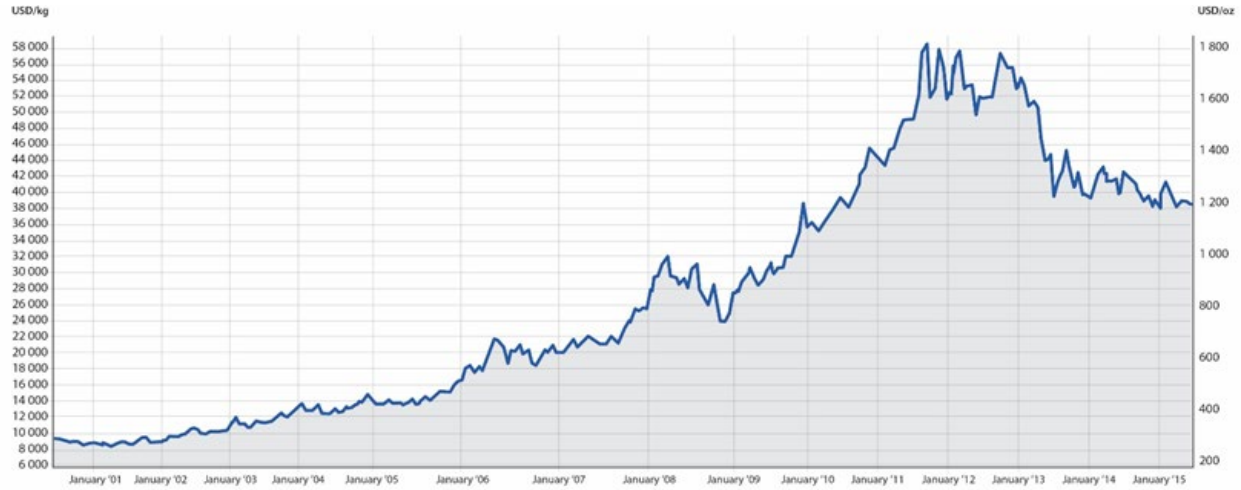
In Ghana, informal ASGM (as well as miners active in the sector) is known as *galamsey*. A commonly used term, *galamsey* will often be used to describe all ASGM activities, and often little distinction is made between legal and illegal ASM (Collins and Lawson, 2014). For many years, *galamsey* was considered a nuisance, but it did not have the scale or impact to be considered a major problem (GHA-Gov-Min-150515). *Galamsey* is now a prominent national concern due to two factors. First, the sector has grown (Figure 2.4.), largely due to the exponential rise in gold prices (Figure 2.5.). There is also growing involvement of foreign miners (GHA-CivSoc-110515; GHA-Gov-Min-150515). Second, imported mining equipment and modernised extraction techniques have an increasingly detrimental impact on the environment. Ghana has taken steps to address informal ASGM and associated IFFs. However, as this case study shows, regulating the ASGM sector remains a challenge.

Figure 2.4. Percentage of Ghana national gold output attributed to ASGM



Source: ACET (2015), "Improving Governance of the Artisanal and Small-scale Mining Sector in Ghana", http://acetforafrica.org/acet/wp-content/uploads/publications/2017/03/ACET-Improving-Governance-of-ASM-Main-Paper.pdf.

Figure 2.5. Price of gold in USD, 2001-15



Source: GoldPrice (2015), *Spot Gold Price* (database), https://goldprice.org/gold-price-history.html.

Many developments in the Ghana ASGM sector are now also seen in Liberia. For example, there are reports that ASGM is increasing and that the number of foreigners active in the sector is growing. The number of machines is also reportedly increasing, degrading the environment at accelerating speed. Sustainable livelihoods and the environment are matters of concern, although the biggest factor motivating Liberia to support the sector's formalisation is the loss of tax revenue, which is thought to be significant.

Value of ASGM supply chains

Due to the informal and clandestine nature of the ASGM trade, it is difficult to estimate its scale. Furthermore, mining camps can range from a handful of individuals to several thousand. In Ghana, gold sales compensate an estimated 1.1 million ASM operators who have 4.4 million dependants. Similarly, ASGM miners in Liberia split gold profits among an estimated 100 000 ASM operators who have 600 000 dependants (Economic Commission for Africa and African Union, 2011). The value of gold derived from an ASGM supply chains is not easy to assess as it

is not always certain the gold has been mined in, or even exported from, the stated country of origin. Furthermore, due to environmental factors such as the rainy season and the fluctuating spot price of gold, its value is unlikely to be stable, but rather to ebb and flow according to market supply and demand. As such, any number offered is, at best, an educated guess.

Ghana

Ghana exported a little more than USD 5.6 billion worth of gold in 2012 and nearly USD 5 billion worth of gold in 2013. Of this, ASGM officially generated 34%, valued at about USD 1.9 billion in 2012 and USD 1.7 billion in 2013 (GHEITI, 2014), although official figures are believed to underestimate the amount of gold illicitly mined by *galamsey* miners (GHA-CivSoc-110515). One expert estimated that only 30% of gold produced by ASGM operations was mined in compliance with national regulation. The expert contended that both licit and illicitly mined gold are exported through official channels, as well as smuggled out of the country (GHA-Gov-140515). Another interlocutor speculated that ASGM accounts for two-thirds of total gold production in Ghana (GHA-IO-150515). Applying these theories to 2013 figures, informal ASGM in Ghana may have produced as little as USD 1.2 billion of gold (70% of official ASGM production). On the other hand, it may have produced as much as USD 6.7 billion (if official LSM production accounts for only one-third of total production). This does not account for bribes or other ancillary flows. Also, it is hard to judge how increases in ASGM activity and drops in gold price have impacted the value of the flow. More recent figures are not available.

Import figures of primary destination countries for Ghanaian gold can also be used to estimate the value of flows. Comparing import and export figures indicates what percentage of gold could be smuggled. In 2011, the United Arab Emirates imported 27.6 tonnes (t) of gold from Ghana. However, Ghana reports exporting only 19.4 t of gold to the same country in the same year (UN Comtrade, 2015). If all gold imported to this country that reportedly came from Ghana did in fact originate there, 30% was smuggled out of Ghana. It only entered the formal supply chain upon import to the United Arab Emirates. One could assume that only 70% of gold produced in Ghana is exported through formal channels and 30% is smuggled out of the country.[2]

Liberia

In Liberia, it is thought official gold flows sourced from ASGM pale in comparison to the scale of informal ASGM flows, and there is no doubt that smuggling occurs (LBR-IO-210515). Both miners and local businesses are reportedly taking gold out of the country. In addition, it is widely believed that foreign national miners are smuggling gold out of Liberia, selling it in their home country and depriving the government of millions in revenue (LBR-CivSoc-200515; LBR-Journ-200515).

An estimate of production levels is used to gauge the size of IFFs related to ASGM in Liberia. The number of ASGM diggers and miners in Liberia was estimated at 100 000 in 2011 (Economic Commission for Africa and African Union, 2011). In addition, it is reported that each digger would

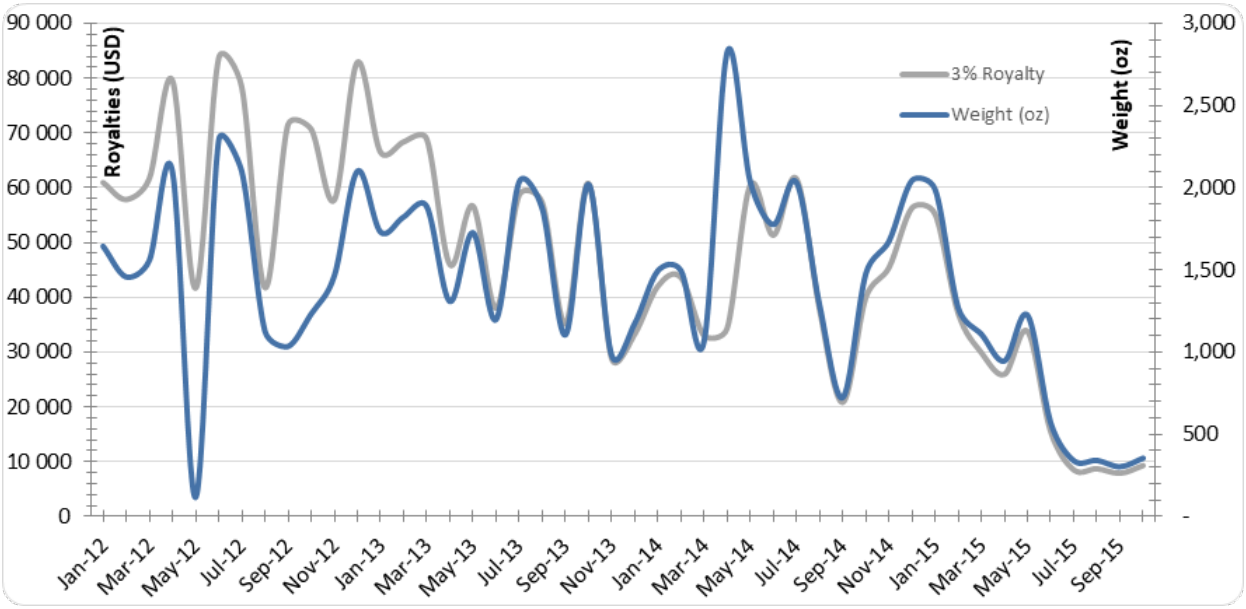
[2] This assumption is presented here for illustration and comes with caveats, given that there may be other explanations for why UAE reports more gold imported from Ghana than Ghana reports exported gold to United Arab Emirates (for example, re-routing of exports through intermediary jurisdictions may result in difference in import/export records in producing and destination countries). This estimation is a best guess, based on the interviews and discussions with experts in the field and is used here for enabling a discussion on amounts of IFF that remain and that leave the region. This report acknowledges the debates on robustness of figures and methodologies in this area and does not suggest that this figure is definitive, given the difficulties with data in this topic.

need to sell about 2 grammes (g) of gold per week to survive. Using these figures, the Liberian ASGM sector could produce an estimated 10 t of gold each year. This figure does not account for ebbs and flow throughout the year, specifically the rainy season. At the annual average gold price for 2011, this amounts to a little more than USD 505 million in gold produced by the Liberian ASGM sector annually.

In 2014, Liberia officially exported nearly 20 000 ounces of gold (0.57 t) (MLME, 2013-15, Figure 2.6.). This would only account for 5.7% of the 10 t of gold the ASGM sector is estimated to produce. If these figures are even remotely correct, the vast majority – over 90% – of gold mined in Liberia is thought to be smuggled out of the country each year. This has a rough value of USD 455 million as of 2011.

For Liberia, the estimate of 10 t of gold produced annually with the vast majority smuggled out of the country appears realistic. In 2011, the United Arab Emirates officially imported a little more than 2.3 t of gold from Liberia (UN Comtrade, 2015). If 2.3 t of the estimated 10 t of gold was smuggled from Liberia to the United Arab Emirates, the remaining 6.7 t of gold may have been smuggled into neighbouring countries. In the same year, the United Arab Emirates imported 1.2 t of gold from Guinea and over 9.6 t of gold from Mali (UN Comtrade, 2015). In 2012, Switzerland imported 5.3 t of gold from Côte d'Ivoire, 6.1 t of gold from Guinea and 10.6 t of gold from Mali (Swiss Customs Administration, 2015). Combining the 2011 and 2012 import figures, the United Arab Emirates and Switzerland imported 32.8 t of gold from countries allegedly receiving Liberian gold (Guinea, Côte d'Ivoire and Mali). This number could include some, or most, of the estimated 6.7 t of Liberian gold produced by ASGM that is unaccounted for in official exports.

Figure 2.6. Liberian gold exports, by weight (oz) and royalties collected



Source: MLME (2013-15), *Report on Gold Export*, https://mme.gov.lr/.

More recently, the UN Panel of Experts on Liberia found the Liberian Precious Minerals Office appraised 416.5 kg of gold valued at USD 16.5 million for export over nine months in 2013. This generated USD 495 000 in revenue for Liberia. However, industry sources informed the Panel that actual annual production is likely to be in the range of 3 t (UNSC, 2013). These figures are

significantly lower than the other production estimates. However, the percentage of gold thought to be smuggled out of the country is similar – 86% (416.5 kg/3 000 kg). If the same amount of gold was produced in the final three months of 2013, ASGM would have produced 4 t of gold annually at a value of roughly USD 152 million in 2015. If 86% of this gold was smuggled out of the country, the Liberian government lost an estimated USD 159 million in revenue.

It is often said that dealers and buyers would sell gold at close to the world market price. In contrast, interlocutors indicated there was a large range in prices buyers paid miners and diggers for gold. On the one hand, miners could be severely underpaid. On the other, they could be paid at or above the global market rate. One reported that buyers in the bush were paying LRD 2 700-3 000 per g of gold (roughly equivalent to USD 32-35) (LBR-CivSoc-210515a). Another stated buyers were paying USD 42-48 per g (LBR-CivSoc-210515b), although gold prices had not reached those prices since 2013. As such, it is difficult to ascertain an average, or even common, price paid to diggers and miners.

Multiple interlocutors reported that illicit actors were willing to pay more than the world market rate for gold. In fact, foreign national buyers were reportedly paying as much as USD 65 in the bush for gold. There was no consensus among various interlocutors about why buyers were willing to pay such high prices. This is an area of concern, as it indicates gold has more value as a commodity than it does on the formal market. This, in turn, leads to speculations of gold used to launder money, as currency in illicit markets, etc. Such a finding warrants further investigation.

3 Enablers of informal and illicit ASGM

A plurality of factors contribute to enabling informal and illicit ASGM and resulting financial flows. Domestic factors that perpetuate informal ASGM can be categorised into two groups: the first refers to a lack of alternative livelihood options that offer comparable economic returns. The second is an inability or lack of political will to address challenges to formalise the sector. Without substantial progress in formalising the sector, ASGM in Ghana and Liberia remains highly vulnerable to exploitation by organised criminal actors. This comes at the detriment of local populations, the environment and development goals.

Lack of alternative livelihoods

Increased ASM has been linked to the decline in the viability of agriculture, poverty, conflicts and economic crises, but also the potential for high profits (Eftimie et al., 2012; Mining Facts, 2012). In West Africa, ASM is often the only, or the best, livelihood option in given areas.

Economic pressure in both Ghana and Liberia, paired with an exponentially increasing gold price up until 2011, has attracted individuals to ASGM. Ghana registered relatively commendable economic growth in 2014. But the economy subsequently faced major challenges due to sharp currency depreciation, macro-economic imbalances, and rising inflation and interest rates (AfDB, OECD, UNDP, 2015). The downturn in Ghana's economy led to job losses, especially in the agricultural and manufacturing sectors. According to one interlocutor, the downturn prompted many people to go into mining (GHA-IO-150515).

ASGM is a significant employer in Liberia (LBR-Corp-Min-190515) and increased in importance following the 2014-15 Ebola crisis. In Liberia, the Ebola outbreak and its spill-over effects significantly slowed GDP growth in 2014. Its impacts were most acutely felt by Liberia's poor, who experienced reductions in already precariously low incomes. Mining and rubber exports continued during the crisis, but the service sector, which employs around 45% of the population, faced a sharp decline (AfDB, OECD, UNDP, 2015). The percentage of the population involved in ASM reportedly increased with the shrinking of the Monrovia service sector (LBR-IO-210515).

Observers in both Ghana and Liberia report that the above-mentioned incentives have prompted a wide cross-section of the population in both countries to engage in ASGM. In most cases, people only make a few dollars income per day, but this is greater than the income they can derive from other activities. In fact, police have reportedly shut down mining sites in Liberia, only to resign from their posts and return to the mining site to work (LBR-Gov-200515; NOR-Analyst-300415). Other reports suggest retiring civil servants and government officials become miners because they can earn more money (LBR-Journ-200515; LBR-Corp-Min-190515).

ASGM is a significant employer of youth. As an independent expert in Ghana put it, "agriculture is suffering and young people want to earn a living" (GHA-CivSoc-110515). The mining workforce

in both Ghana and Liberia consists of large numbers of young men and women (LBR-CivSoc-210515a; LBR-Corp-Min-180515; LBR-Journ-200515). Several thousand children are reportedly engaged in various mining activities in Ghana (ILO, 2013). Similarly, in Côte d'Ivoire, children are paid a relatively high income in ASGM compared to other livelihood options. This has also encouraged many children to leave school (UNSC, 2015). Some children in the ASGM sector work independently and process gold by themselves, selling it directly to traders. Others are employed and paid by adults for specific tasks. Child labourers who were employed to carry, shovel, wash, pan or amalgamate the ore are typically paid a daily wage. This wage can vary dramatically, even at a single location (HRW, 2015). The importance of ASGM as a livelihood option for youth is significant: 57% of Ghana's population and 61% of Liberia's population are younger than 25 (CIA, 2014).

Interlocutors report that ASM operations in Liberia are a significant employer in the country (LBR-CivSoc-200515; LBR-Corp-Min-190515; LBR-Gov-210515; UNSC, 2014). Official data, however, indicate that mining employs less than 2% of the population (LISGIS, 2011). Challenges in collecting data, particularly as a result of high mobility rates, mean it is likely that individuals working in the ASGM sector will not be included in censuses. In turn, formal labour data may undervalue the number of individuals engaged in the sector, and thus its importance as a livelihood option.

Interlocutors interviewed for this study underlined the importance of ASGM as a livelihood option, signalling that it would be a gross misstep to demonise ASGM, despite ASGM miners engaged in subsistence mining only making enough money to survive with no viable alternative options (LBR-IO-210515). Attempts to eliminate ASGM are unlikely to curb related IFFs, but rather would likely have a detrimental impact on development opportunities for West African populations.

Government response

In addition to strong economic push and pull factors, it has been challenging to mount an effective government response in both countries. This has been hindered by a lack of capacity to formalise and provide support to the ASGM sector and combat related IFFs, which has allowed actors to engage in illicit trade relatively unimpeded.

In Ghana, the issue of illicit ASGM has been described as overwhelming. Interlocutors report there is insufficient capacity and political will for addressing the challenge (GHA-Finan-130515; GHA-Analyst-230615a; GHA-Gov-Min-130515). One interlocutor lamented the lack of political will to formalise and support the sector, stating there is a need to build capacity and put pressure on the government (GHA-Gov-Min-130515).

Law enforcement tried to stop illegal mining operations, specifically those involving foreign nationals. Due to the scale of ASGM activity, however, such initiatives barely scratched the surface (GHA-Finan-130515). Foreign nationals engaged in ASGM are reportedly hiding behind Ghanaian collaborators more effectively, and thus continue many illegal operations (GHA-CivSoc-110515). There are allegations that concerns about jeopardising foreign relations hinder efforts to combat the activities of illegal foreign miners in Ghana. For example, some individuals believe a national task force to help "flush out" illegal foreign nationals mining for gold was delayed due to concerns it might harm relations with donors (Hilson et al., 2014).

In 2017, Ghana took the step of banning all ASGM and establishing Operation Vanguard, a security force that was established to combat illegal mining equipment. However, the ban was lifted two years later, in December 2018, for miners who had been granted a license under the new regulatory regime.

Policies that place unrealistic demands on ASGM operators and provide little or no support remain a challenge to formalisation. In Ghana, for example, land policies have resulted in large scale mining operators controlling the majority of land with mineral resources, which has marginalised ASGM operators. In addition, the ASM licensing regime is described as burdensome and overly time-consuming. The formal ASM licensing procedure, similar to LSM licensing procedures, fails to acknowledge or address the significantly lower capacity of ASM operators to comply with time-consuming, bureaucratic processes, especially when compared to their LSM counterparts. A survey of ASM operators found that 83% believed the licensing process to be too long; it took some of them several months and sometimes over a year just to obtain an environmental permit (ACET, 2015). Relatively high entry fees are also a significant challenge. Payments can include processing and consideration fees, and the cost of an application form and site plan, as well as court fees, transport costs, stamp duty, and stool lands registration – in total equalling well over USD 500 (Hilson, 2012).

In contrast, informal modes of licensing allocation and access to plots of land for ASGM are usually granted through direct negotiations according to traditional customary practices. Because this licensing process is quick, non-bureaucratic and usually to the satisfaction of the parties involved, it is highly popular with both ASM operators and local community members (Nyame and Blocher, 2010). Operators who enter into such agreements, while operating illicitly under national legislation, may possess a great deal of legitimacy.

The state of affairs in Liberia is similar. In a 2013 report, the UN Panel of Experts on Liberia found that government control over the ASGM sector was weak. It attributed lack of regulation to poor infrastructure, remote border locations of many mines and the underfunding of personnel of the MLME (UNSC, 2013). In a 2014 report, the Panel of Experts again expressed concern that the government of Liberia was not providing adequate oversight of mining areas, resulting in significant amounts of gold smuggled to and from the country. Furthermore, the Panel noted the Kimberley Process review mission found weak or non-existent controls at the main international airport, and poor record-keeping relating to mine production in regional offices (UNSC, 2014).

The government has recognised the need to support the sector. The Mineral Policy of Liberia (2010) stated “artisanal and small-scale miners need help in procuring lawful access to deposits, to markets and to information about fair prices for their products” (MLME, 2010). In addition, progress has been made in reducing the time it takes to obtain a licence (LBR-Corp-Min-190515). Also, the government has recognised that centralising licensing in Monrovia is a deterrent to registering. As a result, the government is basing licensing agents in the bush to decentralise the process (LBR-Gov-210515).

However, as described by two interlocutors, “the central government has no control and lacks the resources to reign it in” (NOR-Analyst-300415) and “the government has no capacity to do anything” (LBR-CivSoc-200515). As one government official himself concluded, “there are big problems regulating the sector and it's hard to monitor” (LBR-Gov-210515). For example, the mining inspectorate is supposed to follow up on mining licences, but lack vital resources such as cars to visit mining sites (LBR-Gov-180515). The Environmental Protection Agency of Liberia (EPA) is unable to respond to the environmental damage associated with the mining of gold (LBR-Corp-Min-190515). In turn, the little political will to formalise the sector is handicapped by limited resources; this results in the general consensus that the gold sector is nearly, if not entirely, unregulated in Liberia (UNSC, 2013).

The lack of capacity not only results in the sector remaining largely unregulated, but is also linked to corruption. In Liberia, for example, it is generally necessary to bribe MLME agents to obtain a mining licence (LBR-CivSoc-210515a; LBR-Gov-180515; LBR-Corp-Min-180515; LBR-Corp-

Min-190515). This practice is reportedly fuelled by such agents' need to supplement small government salaries. Such corruption results in ASGM workers distrusting both government officials and private companies. Even if they were offered jobs, some miners would not want a private company to take over because they want to control the minerals themselves (LBR-Gov-200515).

The governments of Ghana and Liberia have tried to take action, although there is a need for more political will and resources. Substantial changes are needed for action to have any real impact on formalising the sector and curbing the scale of associated IFFs. In addition to greater political will at the domestic level, interlocutors stated that international development actors must be more active. As one stated, ASM has not received enough attention from development actors. It has not been a centre piece of development plans; rather, it has been perceived as a nuisance and grievance (GHA-Analyst-230615a).

Regional economic factors

A number of regional factors are also perpetuating IFFs linked to ASGM in Ghana and Liberia. The main regional drivers of illicit trade are gold being used as currency, the price paid for gold in different countries and, perhaps most importantly, differing royalty rates from country to country on gold exports. In addition, it can be much easier to cross the border in a rural area to sell gold to a buyer than to sell the gold domestically; this is especially true in Liberia.

Gold used as currency

Gold is used as currency in West Africa to varying degrees, often due to lack of confidence in national currencies and the ease of exchanging gold for cash. In both Ghana and Liberia, due to the weakening of the local currency, people are reportedly reluctant to sell gold; gold is perceived as more valuable than the money paid for it (GHA-Gov-Min-150515). Consequently, local miners and communities value the gold at more than the official market rate, especially when buyers are paying in the domestic currency. In turn, legal buyers offering to pay in the local currency based on global gold prices have difficulty purchasing gold since they cannot compete on price (LBR-Gov-210515).

Gold is also an easy means of foreign exchange. As one observer commented, people just want a hard currency they can trade in (LBR-Gov-210515). Reportedly, this is common in remote areas of Liberia. For example, in southeast Liberia, in areas such as Grand Gedeh County, some communities have stronger connections with Côte d'Ivoire than with Monrovia. In turn, gold is commonly used as a currency because it can be easily traded in both Liberia and Côte d'Ivoire (LBR-CivSoc-200515; LBR-Gov-210515).

Gold prices

If buyers will pay higher prices elsewhere, sellers will reportedly smuggle their gold to neighbouring countries, or even out of West Africa. While the London Bullion Market Association (LBMA) sets the official international price for gold, buyers in the field will pay a higher or lower price depending on local supply and demand. For example, gold has reportedly been smuggled to Togo and Dubai, where it can be sold at higher prices per gram than in Liberia (LBR-Corp-Min-190515). This is reported to be a significant driver in Liberia; where most gold is believed to be smuggled to Guinea where it is sold at higher prices than those offered in Liberia (LBR-CivSoc-200515; LBR-Journ-200515; LBR-Corp-Min-190515).

Royalty rates

Numerous stakeholders, especially in Liberia, cite differing royalty rates from country to country as an influential driver of gold smuggling. Liberia's royalty rate is reportedly 5%, while that of Sierra Leone is only 3% and that of Guinea a mere 2% (NOR-Analyst-300415; LBR-Gov-210515). However, only looking at Guinea's royalty rate gives an incomplete picture. As one interlocutor explained, mining royalties in Guinea are so low because Guinean mines border Mali; Mali's low royalty rates were undermining those of Guinea and prompting gold to be smuggled from Guinea to Mali. Consequently, Guinea reduced royalty rates to provide buyers with a greater incentive to keep gold in the country (LBR-Gov-210515).

This is not the first time royalty rates have been an incentive for smuggling. Sierra Leone's Mines and Minerals Act of 2009 raised the rate for precious stones to 6.5% and gold to 5%. After the tax was enacted, no precious stones were officially exported for the next six months, leading to a clear drop in gold exports. In contrast, exports of precious stones from Guinea and Liberia increased. When Sierra Leone's government subsequently lowered these rates, there was a partial recovery in export numbers (Vorrath, 2014).

The issue of royalty rates as an incentive for smuggling highlights the need for co-ordinated regional action. Without a regional framework, it is foreseeable there will be a race to the bottom in royalty rates, which will benefit exporters to the detriment of West African countries.

Table 3.1. Gold royalty rates in select West African countries

Country	Royalty rates
Benin	5.85%
Burkina Faso*	3% to 5%
Ghana	3% to 5%
Guinea	0%
Côte d'Ivoire	3% to 6%
Liberia	3%
Mali	2%
Niger	3%
Nigeria	4%
Senegal	3.5% to 5%
Sierra Leone	3%
Togo	2% (in transit)

Note: *1% when gold is sold directly to l'Agence Nationale d'Encadrement des Exploitations Minières Artisanales et Semi-mécanisées (ANEEMAS).
Source: UNIDO (2018), *Curbing Illicit Mercury and Gold Flows in West Africa: Options for a Regional Approach*, https://www.unido.org/sites/default/files/files/2018-11/UNIDO%20ECOWAS.pdf.

Involvement of foreign nationals

The rising involvement of foreign nationals in the ASGM sector has played a significant role in the increasing amount of illicit activity and the rise of related IFFs. In Ghana, the number of foreign nationals engaged in ASGM is thought to be massive; words used to describe the phenomenon include "uncontrollable" (GHA-IO-150515) and "unstoppable" (GHA-Finan-130515). While not nearly as extensive in Liberia, there are indications of increasing levels of foreign national activity in the Liberian ASGM sector, setting the country on the same path as Ghana.

Chinese national miners reportedly began working in Ghana eight to ten years ago, buying concessions and bringing in equipment (GHA-Gov-Min-150515). The impact of Chinese machinery on the environment, in particular river systems, is incredibly harmful. As one individual stated: "Just Ghanaians would not be as big of a problem, but the Chinese equipment is degrading the environment faster – [it is] ruthless and brutal" (GHA-IO-150515). OECD field research into the ASGM sector in the DRC revealed similar practices by Chinese-owned companies; the predominantly Chinese semi-industrial miners were found to illegally drag rivers (Mthembu-Salter, 2015a).

In addition, violence and human rights abuses involving incidents between nationals and foreigners have been reported (GHA-Finan-130515). Chinese nationals are accused of assaulting Ghanaians, whom they employ to operate their machinery (Hirsch, 2013), and frequent attacks by Ghanaians on Chinese miners have been reported.

More recently, relationships have been more harmonious. An increasing number of Ghanaians are speaking Mandarin fluently and local lawyers are fully occupied working to keep Chinese nationals in the country (GHA-Analyst-230615a). Also, chiefs and other community leaders are said to have concluded working agreements with foreign partners that "permit" them to work sections of land in exchange for a percentage of the gold production (Hilson et al., 2014). However, it would be unwise to paint these relations in a wholly positive light; they have been linked to corruption and have benefited to individual Ghanaians to the detriment of the larger community. For example, many guns that Chinese have procured to protect themselves are said to come from the police, reflective of several high-profile cases of police corruption in relation to Chinese illegal mining (Hirsch, 2013).

Compounding the above-mentioned negative impacts, it is also widely alleged that Chinese nationals are not selling the gold they mine to legal buyers in Ghana, but rather smuggling or selling it to foreign buyers or exporters who do not declare it (GHA-Analyst-230615a; GHA-Finan-130515; GHA-CivSoc-110515; GHA-IO-150515; GHA-Gov-Min-150515). The lack of a discernible supply chain linked to Chinese ASGM operations, especially when other groups of ASGM operators visibly sell gold, indicates the gold mined by Chinese operators may be smuggled out of Ghana before it is sold. When this happens, all benefits from mineral resources are lost. This contrasts with informally mined gold that works its way into the legal gold market before export, allowing the Ghanaian government to collect revenue.

Blaming foreign nationals fails to acknowledge the underlying domestic policies that have facilitated the exponential growth of the *galamsey* sector in Ghana. Government policies favouring LSM and placing unrealistic burdens on ASGM operators, while neglecting to provide support for the ASGM industry, arguably enable foreign exploitation. For example, a dearth of local funding options has pushed ASGM operators to explore alternative support channels. This has often meant reaching out to foreign partners. The decision by scores of Ghana's *galamsey* miners to reach out to foreign financiers has ultimately stimulated the inflow of foreign nationals to the sector (Hilson et al., 2014).

In Liberia, the presence of foreign national miners has only been noted for the last four to five years (LBR-CivSoc-200515; LBR-Gov-180515; LBR-Journ-200515). There have been multiple reports from regions around the country of Chinese bringing in machinery and mining, but it is unclear if they are mining for gold or sand (LBR-CivSoc-200515; LBR-Gov-180515; LBR-Journ-200515). Due to Chinese activity in the construction sector, one commentator speculated it would be easy for Chinese to smuggle mining machinery into Liberia (LBR-Gov-200515). As in Ghana, such machines are thought to have a huge adverse impact on the environment, destroying river

beds (LBR-CivSoc-200515). The Liberia Extractive Industries Transparency Initiative (LEITI) carried out a study on the issue (LBR-IO-210515).

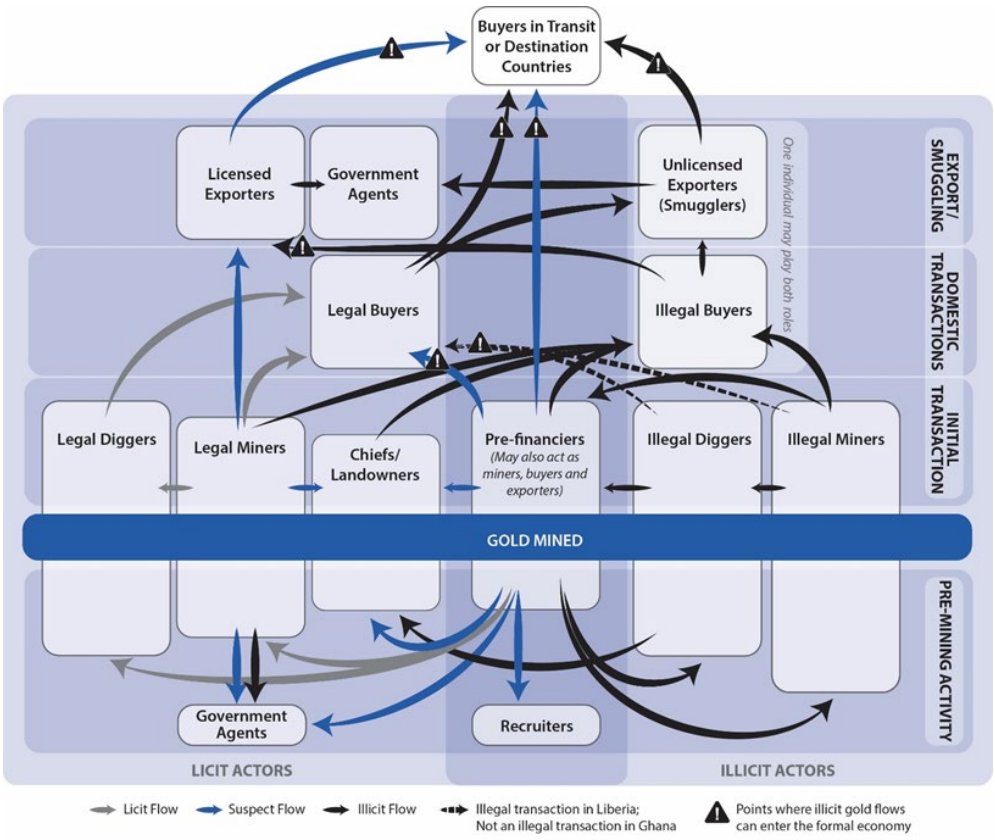
Foreign national activity in the Liberian ASGM sector is reportedly on the rise. But several interlocutors stated it is important not to over-estimate non-African foreign national involvement, as there are much higher rates of West African foreign nationals engaged in the sector (LBR-Gov-180515; LBR-Gov-200515). As one individual summarised: “While not currently a threat, [foreign nationals] are a potential risk and we need to pay attention” (LBR-Gov-210515).

4 Political economies of ASGM and smuggling

Ideally, all ASGM supply chains in Ghana and Liberia would follow the streamlined path provided by the legal regimes governing them. In reality, ASGM supply chains and related financial flows, both licit and illicit, are part of a complex web of activities that combine licit and illicit activity and involve a diverse array of actors.

Figure 4.1 illustrates the complexity of these financial flows. Actors are identified in the white boxes and financial transactions are depicted by arrows. Notably, pre-financiers may play a central role, both before and after gold is mined; they may provide funds to any of the actors involved in mining gold, as well as those who control the land (chiefs/landowners). They may also collect gold from diggers or miners, as well as reap the profits of gold sales to buyers and exporters.

Figure 4.1. Financial flows related to ASGM in Ghana and Liberia



Source: Figure produced by the author

The global trade in gold from ASGM can be compared to a funnel: gold from many different locations, bought by many buyers, gets traded to fewer and fewer companies until it reaches the refinery. It is widely recognised that refiners occupy a choke point of the gold supply chain. Most of Ghana's ASGM gold is exported to international gold trading or refining companies based in Switzerland and the UAE (HRW, 2015). In Figure 4.1. refineries fall under the category of "Buyers in Transit and Destination Countries".

The following section presents a political-economic analysis of the IFFs associated with the ASGM supply chain in Liberia and Ghana, starting with licensing regimes and pre-mining activities (pre-financing, land issues, etc.), before moving to mining and to the role of buyers, dealers, exporters, and transit and destination countries.

ASGM licensing regimes and regulatory frameworks

Ghana

Small-scale mining in Ghana was completely unregulated until 1989, when it was formalised through a series of legislative acts (GHA-Gov-Min-150515). The Small-Scale Gold Mining Act of 1989 defines small-scale gold mining operations as "the mining of gold by a method not involving substantial expenditure by an individual or group of persons not exceeding nine in number or by a co-operative society made up of ten or more persons." (Parliament of Ghana, 1989). In 2006, small-scale mining was integrated into the Minerals and Mining Act 2006 (Act 703): "Despite a law to the contrary, a person shall not engage in or undertake a small scale mining operation for a mineral unless there is in existence in respect of the mining operation a licence granted by the Minister for Mines or by an officer authorized by the Minister" (Parliament of Ghana, 2006). Under current legislation, small-scale gold mining licences can only be granted to Ghanaians (not foreigners).

Gold is therefore legally mined by an individual or group, who must carry a mining licence from the Minerals Commission. The Ghana Mineral Commission has issued 2 223 small-scale gold mining licences, of which 1 433 were valid in 2016 (GHA-Gov-Min-150515). Licences are valid for five years for co-operatives or three years for non-cooperatives, after which time the licence may be renewed (Collins and Lawson, 2014). However, many miners do not renew their licences once they expire. This explains why the number of valid licences in 2016 was significantly smaller than the total number of licences issued.

Gold is then sold to a licensed buyer. In 1989, the Ghanaian government established the Precious Minerals Marketing Company Limited (PMMC) to issue and govern licences for ASM gold and diamond buyers (Collins and Lawson, 2014). At the time, a substantial number of smugglers operated in the bush, resulting in revenue loss for the government. Ghana therefore decentralised the buying process and created licensed buying agents (GHA-Gov-Min-150515). A state official reported the PMMC had issued over 800 licences to individuals and trading companies (GHA-Gov-140515). From there, gold is sold to an exporter. A legal transaction requires an exporter to have 25 or more kilograms (kg) of gold (GHA-Gov-Min-150515).

Liberia

In accordance with the 2000 Minerals and Mining Law "no person shall engage in mining in Liberia pursuant to a licence provided for" in the law (Republic of Liberia, 2000). ASM activities

for all minerals are regulated through class "C" prospecting licences granted by the Ministry of Lands, Mines and Energy (MLME). The 2000 Minerals and Mining Law provides a broad definition of ASM, stating that "'Small-Scale Operation' shall mean a Mining Operation other than an industrial operation" (Republic of Liberia, 2000). To apply for the licence, a miner must have 10 hectares (ha) and clearance from a mining agent that the area is vacant (LBR-Corp-Min-180515). Class "C" licences are only available to Liberian citizens (Small, 2012). The MLME has issued 1 200 licences, but as one state official stated, "it is anybody's guess how many people are actually mining" (LBR-Gov-210515). A class "C" licence holder can hire up to ten diggers, also known as gold boys, to work a mine site (LBR-Gov-180515).

Miners must first pay for a licence. While the fee for a class "C" licence is USD 150, the total cost is much higher, and significantly increased by the expense of travelling to Monrovia, as well as unofficial "facilitation fees" (bribes) charged by local mining agents (Small, 2012). "Facilitation fees" vary according to how mineral-rich the area in question is, with reports of such fees being as low as USD 50 and as high as USD 200 or more (LBR-Corp-Min-190515). In addition, a fee must be paid to register a site on the Mining Cadastre Information Management System (MCIMS) (LBR-CivSoc-210515a; LBR-Corp-Min-190515). As such, a licence, valid for only one year, often costs USD 350 or more. A gross domestic product (GDP) per capita of USD 900 puts Liberia at the bottom of world rankings (225th of 230 countries) (CIA, 2014). As such, the cost of a licence is a significant strain on nationals with little access to financing or savings.

The gold is then sold to a licensed broker, and broker licences are limited to Liberian citizens (LBR-Corp-Min-180515). Brokers then sell gold to licensed dealers for sale and export.

Fine line between legality and illegality

ASGM is regulated in both Ghana and Liberia. Legislation explicitly prohibits all mineral extraction without authorisation. As such, all ASM conducted in the countries without formal authorisation is illicit activity. In practice, in both Ghana and Liberia there is a thin line between legality and illegality (GHA-CivSoc-110515). For example, in addition to miners operating without a licence, legally licensed miners may work in areas outside their allocated land, allow their licences to expire or violate the environmental obligations stipulated in their licences. As such, while both countries have laws that allow for formal, legal ASGM, most ASGM is done illicitly in the informal sector in both countries (GHA-Analyst-160615; GHA-CivSoc-110515; GHA-CivSoc-160515; LBR-CivSoc-200515; LBR-CivSoc-210515a; LBR-Gov-180515; LBR-Gov-200515; GHA-IO-150515; LBR-IO-020615; LBR-Journ-200515; LBR-IO-210515; GHA-Gov-Min-150515; LBR-Corp-Min-190515).

Reflecting the general consensus in both countries, one Liberian interlocutor stated it is an open secret that illegal mining is taking place across the entire country (LBR-Journ-200515). The Ghana Minerals Commission has suggested that 80% of ASGM operators in Ghana engage in illegal activities (Collins and Lawson, 2014). In Liberia, it was speculated that 50% to 60% of gold miners are licensed, but that these percentages are significantly lower in remote areas (LBR-Gov-210515). One individual working with multiple mines reported that 75% of the people he worked with were mining without a licence, and that of 12 major mining sites in the area, only one person was operating with a licence (LBR-CivSoc-210515a). Another interlocutor reported that 70% of the miners in his area operated without a licence (LBR-CivSoc-210515b).

Pre-mining financial transactions

In both Ghana and Liberia, IFFs begin to form before the gold even leaves the ground. IFFs in this phase can be divided between pre-financing of mining operations, payments for land use and mercury sales.

Pre-financing

The illicit pre-financing of mining operations or pre-financing by actors who will engage in IFFs once gold has been mined are of major concern; this compromises the supply chain before the gold even leaves the ground. Pre-financing agreements easily take advantage of miners who do not possess the competences and experience of investors. Preliminary investigations by interlocutors into contracts between miners and pre-financiers in Ghana have revealed agreements that are sometimes quite complex and unfair to miners and diggers (GHA-Gov-Min-130515). In parallel, diggers and miners will reportedly adopt arguably unethical strategies, such as exaggerating the volume of ore produced each day, to ensure that pre-financing continues (GHA-Analyst-230615a).

Pre-financing agreements can be extremely variable and thus it is difficult to make a blanket statement about how pre-financing operates. Nonetheless, such arrangements often dictate to whom mined gold will be sold and for how much (GHA-CivSoc-110515). For example, in Liberia, miners sometimes establish partnerships with local business people in return for mining loans, food and other material, such as mining equipment (LBR-CivSoc-200515; LBR-CivSoc-210515a). In other cases, pre-financiers pretend to be only buyers or brokers, but are actually pre-financing mining operations in return for guarantees of right of first refusal once gold is found (LBR-Corp-Min-190515; LBR-Gov-210515).

Numerous stakeholders reported that dealers pre-finance mining operations. While dealers may legally pre-finance ASGM operations, incentives such as lower transportation costs and evading royalty payments may push these dealers to engage in illicit activities once the gold is mined. Some dealers financing ASGM operations declare the gold, but others allegedly smuggle it out of Liberia (LBR-IO-210515). By pre-financing ASGM, either directly or indirectly, dealers can create closed supply chains that they control from pre-financing to export, reducing costs and increasing profits (LBR-IO-210515; LBR-Gov-180515).

The issue is complicated further by the often informal and secretive nature of such financing. Many observers in both countries said they were aware of miners receiving financing, but could not say from whom. Some even said that miners would not tell them who their pre-financiers were (LBR-Gov-200515; LBR-Journ-200515).

Based on available evidence, a wide variety of actors appear to be pre-financing mining operations, ranging from local leaders to foreign businesspeople. There were many reports of local sponsors living in the country and visiting mine sites (LBR-CivSoc-210515a). In other reported cases, “outsiders” provide financial support to miners (LBR-Corp-Min-190515). For example, Ghanaians have recruited foreign nationals to come to Ghana to finance mining operations (GHA-IO-150515; GHA-Gov-Min-150515).

In Ghana, the main nationalities of individuals identified as pre-financing ASGM operations are Ghanaian, Chinese and Indian (GHA-CivSoc-110515). In Liberia, in addition to Chinese and Indian involvement, Lebanese actors are allegedly involved (LBR-Gov-180515; LBR-Gov-200515; LBR-Journ-200515). It was also reported that Guineans, collaborating with Liberians, commonly act as ASGM sponsors (LBR-CivSoc-200515; LBR-Journ-200515).

Identifying nationalities involved in pre-financing of mining in Ghana and Liberia is largely speculative. In the context of global gold flows, however, the suppositions make sense. China and India are the largest gold-consuming countries in the world. In addition, the smuggling of gold into India is well documented (FATF and APG, 2015). By pre-financing mining operations in West Africa, smugglers in destination countries are able to integrate supply streams vertically. In this way, they control cost of production, as well as the price paid for gold. Other criminal supply chains have used this practice to maximise profits from IFFs, for example, in the trafficking of cocaine and heroin. Criminal actors might well attempt to mimic this business model in the gold trade.

Land issues

ASGM operators may pay for access to land, often through mining concessions. The majority of these transactions take place before any gold has been mined. Such transactions are much more common in Ghana than in Liberia. Payments to local communities and landowners prior to mining are rarely declared. This is largely due to muddled land-tenure policies and geographic hurdles that prevent the establishment and enforcement of land rights.

In some communities, local chiefs do not stop mining operations because they are personally benefiting from payments (GHA-Analyst-230615; GHA-Analyst-110515). Ghana's 1992 constitution indicates that relevant chiefs are to receive a percentage of income from natural resources (Parliament of Ghana, 1992). In turn, they are expected to use this income to finance development in their respective jurisdictions. However, such monies are typically squandered and/or used for personal gain (Hilson et al., 2014). In Ghana, chiefs are not legally accountable to anyone, although in practice this varies. The lack of accountability enables some chiefs to collect payments (largely considered bribes), usually without suffering any consequences (GHA-Gov-Min-150515). Thus, some communities see their land destroyed without reaping any benefit.

Some landowners and communities have had their land mined without permission, but have had no means to prevent it (GHA-CivSoc-110515; LBR-CivSoc-210515a). In practice, this can have mixed results. While some interlocutors reported little conflict between mining camps and communities (LBR-Gov-210515), others reported a great deal of tension (LBR-CivSoc-210515a).

In Liberia, some miners have been relatively progressive with respect to land use, and offered payments to local communities. However, similar to chiefs in Ghana, some community leaders often pocketed such payments, with the local community receiving little. Indeed, it is often unclear to miners whether a community will use payments to improve local conditions or solely to financially benefit local community leaders. This lack of certainty reduces their incentive to make such payments (LBR-CivSoc-210515b). Consequently, in both Ghana and Liberia, payments for using land are often bribes or are pocketed by local officials. Thus such payments are part of IFFs, with land holders being peripheral actors benefiting from the ASGM sector.

Mercury sales

Mercury is widely used in Ghana, with pre-financiers and gold buyers known to provide it to miners to encourage partnerships and loyalty in business transactions. While mercury has incredibly harmful impacts on health and the environment, its sale and use are not necessarily illicit. The Ghana Minerals and Mining Act of 2006 states that "A small-scale miner may purchase from an authorized mercury dealer the quantities of mercury that may be reasonably necessary for the mining operations of the small scale miner" (Parliament of Ghana, 2006). In practice, the sale of mercury is largely unregulated and is freely available in shops (Kippenberg, 2014). As of 2013, mercury was imported legally, primarily from China; about GHC 40 (USD 20) would buy a

bottle the size of an eye-drop-container (Prestea, 2013). More recently, foreign national miners have allegedly brought in much of the mercury sold in Ghana (Kippenberg, 2014).

While common in Ghana, and many other regions in the world, mercury is not widely used in Liberia (LBR-CivSoc-210515a; LBR-CivSoc-210515b; LBR-Gov-180515; LBR-Gov-200515; GHA-Gov-Min-150515). This may be due to the belief that mercury reduces the quality and value of the gold (likely because of the discoloration that occurs when mercury is first applied). Representatives from the mining industry made this assertion directly to the author.

Mercury sales could feature more prominently on the West African black market in the future. Ghana and Liberia, as well as Côte d´Ivoire, Burkina Faso, Guinea and Togo, are signatories of the Minamata Convention on Mercury (UNEP, 2015). The Minamata Convention aims to "protect human health and the environment from" mercury and mercury compounds through a number of actions, including restricting mercury supply and reducing demand for mercury (UN, 2013). However, if the licit import and sale of mercury are heavily restricted without also reducing demand, mercury will likely become a valuable commodity on the black market. Ghana has the potential to play a key role in this flow as it appears to be a major entry point for mercury into the West African region (Kippenberg, 2014).

Gold sales

Diggers and miners

Miners often hold a mining licence, are pre-financiers of a mining project, or have some other management or investment rights entitling them to mine in a certain location. Such miners then hire diggers to work the mine itself. In Liberia, diggers – also referred to as gold boys – are hired on site. Diggers usually work in groups supervised by a miner, who support them with equipment, food, etc. (Vorrath, 2014).

Overall, the largest proportion of diggers in each country appears to be nationals from the respective country. However, the make-up of these groups is variable: they can include individuals from the local district, as well as nationals from other parts of the country. They can also include other West African nationals and foreign nationals from further abroad. As one independent expert commented, many nationalities are represented at the mine sites because of the high quality ore grade and quantity of the gold in the area (NOR-Analyst-300415). Liberian gold is reported to be extremely pure, with only a negligible 3% of mass lost during the smelting process (UNSC, 2013).

In Liberia, in addition to Liberian diggers, diggers and miners from other West African nations have also been reported, in particular from Guinea, Mali and Sierra Leone (LBR-Gov-200515; LBR-IO-210515; LBR-Corp-Min-180515; LBR-Gov-210515). At some mining camps, only Liberians are working as diggers, while at others more foreigners than Liberians are working, most from Sierra Leone and Guinea (LBR-Corp-Min-190515). In some mining camps, as many as 75% of the diggers are reportedly foreign nationals (LBR-CivSoc-200515). Similarly, in Liberia's neighbour Côte d'Ivoire, around 80% of workers were reportedly from Burkina Faso, Guinea and Mali; at another mine site, nearly all of the diggers were from Burkina Faso (UNSC, 2015). While huge numbers of Guinean diggers are reportedly working all over Liberia (LBR-CivSoc-200515), Guinean diggers are said to be concentrated in the north, while Ivoirians are concentrated in the southeast (LBR-Corp-Min-190515).

Large numbers of Liberian ex-combatants are reportedly active in the Liberian ASGM sector (NOR-Analyst-300415). The 2014 report of the UN Panel of Experts on Liberia found that

thousands of former militia fighters, many of them still under the patronage of their former commanders, are engaged in ASGM. The general explanation given by officials for tolerating illicit mining by ex-combatants is that mining keeps former fighters away from more violent activity such as armed robbery in the absence of formal employment (UNSC, 2014). Other interlocutors echoed this assertion, reporting that mining appeals to ex-combatants, who often struggle with reintegration, since it requires minimal skills (LBR-Gov-200515). The story of a 30-year-old ex-combatant with Model, the Liberian militia that helped oust former president Charles Taylor in 2003, is a case in point. After the war ended, the UN reportedly gave him and other ex-combatants a small amount of money and promised to retrain them as mechanics or tailors in return for laying down their weapons. However, he did not receive any training and looked for work as a gold digger. This was how he met his current boss, a former commander in Model, who offered him work digging in the deep gold pits (ANCIR, 2015). The Panel found no evidence that proceeds from ASM were used to purchase arms. It did, however, express concern that the mines could provide recruitment grounds and self-sustaining staging areas for militant activity in the future (UNSC, 2014).

Diggers are at the frontline of ASGM and usually the first to possess the precious mineral. However, the gold supply chain and IFFs that follow take a variety of forms. After gold has been mined, financial flows, both licit and illicit, are largely determined by pre-financing agreements. In Ghana, for example, a commonly reported breakdown has 30% going to the concession (or land) holder, 40% to the sponsor and the rest split among the miners or diggers (GHA-Analyst-110515). In Liberia, there were reports of diggers selling gold to creek owners (LBR-CivSoc-210515a) or licence holders (LBR-Corp-Min-180515), both being considered “miners”. There were also reports of diggers, unhappy with pre-financing agreements, making secret deals with buyers to obtain higher prices for the gold they have mined (LBR-CivSoc-210515).

At this stage in the financial flow, it is unclear to what degree pre-established relationships dictate financial transactions. In Liberia, business relationships often rely heavily on pre-established relationships and trust; many miners (as well as diggers) reportedly do not sell gold to strangers (LBR-Gov-200515). In order to build trust and relationships, brokers sometimes provide support to ensure diggers and miners will sell their gold to them (NOR-Analyst-300415). Then again, relationships are also reportedly less important than money, with miners selling to anyone with enough cash. Both descriptions are likely correct, with practices varying from mining site to mining site.

There were also mixed reports in both Ghana and Liberia as to whether miners are receiving fair prices for gold. At the low end of the spectrum, miners are reportedly paid low prices compared to the world market. In Liberia, several people stated that miners are not getting good prices for gold because information about the market price is not available at mining sites (LBR-CivSoc-200515). This was reinforced by other reports of miners being cheated in Monrovia because they lack experience to navigate the market and negotiate prices with dealers effectively (LBR-IO-210515).

However, others asserted that diggers and miners do know the world gold price and that competition among brokers enables miners to sell gold at reasonable prices, at or a little below market price. For example, in Ghana there were reports that each mining community has about ten agents competing for gold sales (GHA-Analyst-110515). Liberian stakeholders stated that gold has a standard value known by miners and that numerous buyers visit mine sites, generating competition (LBR-Corp-Min-190515). One civil society actor stated that competing brokers come and go every day at the mine sites he works with; the more money buyers offer, the faster the gold goes (LBR-CivSoc-210515a).

At the high end of the scale, it was claimed repeatedly that gold is sold at or above the global market price (LBR-Gov-210515). Such reports warrant the question: why are people paying prices for gold above the market value? Although various interlocutors responded, there was no clear consensus. This is an area of concern, since it suggests that gold has more value as a commodity than it does on the formal market. This, in turn, leads to speculations of gold being used to launder money, as currency in illicit markets, etc. Such a finding warrants further investigation.

Box 4.1. Miners and diggers

The income of miners and diggers as a whole likely accounts for the greatest portion of IFFs. Diggers and miners, however, are the least compensated actors in the ASGM supply chain. This is because initial profits from ASGM output are split among millions of individuals. As a result, diggers and miners only earn a few dollars each day.

The concern at this level is not so much about the economic impact of IFFs, specifically revenue lost by governments and profits generated by criminal actors. Rather, it's about providing social protections and sufficiently compensating operators within the ASGM sector. The significant size of financial flows compensating diggers and miners further emphasises that illicit mining is a livelihoods issue. ASGM has the potential to generate broad, domestic benefits if conducted in a sustainable manner.

Buyers, dealers and exporters

> *Dealers are the ones making the big money (LBR-CivSoc-200515)*

ASGM flows are often complex, with actors holding multiple roles and engaging in transactions with a wide range of individuals. One of the most difficult aspects is differentiating between buyers, dealers, exporters and, on occasion, pre-financiers. One individual may hold several, or even all, of these roles. Moreover, financial transactions may go through each stage or jump any or all of such intermediaries. Thus, when discussing gold sales after gold has left a mining site, actors and transactions should not be separated, but examined en masse.

In both Ghana and Liberia, miners (or diggers) are supposed to sell gold only to licensed buyers. Under the regulatory regimes of both countries, only nationals can hold buyers' licences. However, large numbers of unlicensed individuals in both countries – nationals and foreigners – are reportedly buying gold (GHA-CivSoc-110515). One interlocutor stated there are hundreds of buyers in the districts, but the official list of buyers is less than a page long (GHA-Analyst-230615b).

In one major difference between the two countries' licensing regimes, mining agents in Ghana do not have to buy from licensed miners, whereas this is required in Liberia. In Ghana, buying agents employed by the PMMC do not discriminate on the basis of a miner's legal status when purchasing gold; there is no law requiring them to guarantee gold is legally mined. The PMMC buys gold indiscriminately, without regard to origin (Collins and Lawson, 2014; GHA-Analyst-230615). The PMMC does not take action in part because it believes it is the Mineral Commission's responsibility to ensure that miners are mining legally (GHA-Gov-140515). Consequently, licensed brokers buy gold from both legitimate and *galamsey* miners (GHA-Analyst-110515). This is a vulnerable point in the formal gold supply chain, with *galamsey* gold easily integrated into the formal gold supply chain.

In Liberia, conversely, to better control ASGM flows, gold buyers are required to report the names of sellers from whom they have purchased gold. To renew their licence, they must have only bought gold from licensed miners. Due to lack of capacity for regulating the industry, it is highly likely that a significant portion of gold is bought from informal, unlicensed operators. While the government has taken steps to counter this, such as creating a buyers' union, it continues to face challenges (LBR-IO-210515). Thus, in Liberia, miners' sales to buyers is also a point where informally mined gold enters the formal supply chain.

Current structures have legal brokers from Monrovia going to the bush to buy gold, bringing it back to Monrovia and selling it to licensed dealers (LBR-Corp-Min-180515). However, it is hard to say who is actually buying at this stage. Some interlocutors have stated that brokers are independent or double as miners. Most reports state that brokers often act as "foot soldiers" for dealers in Monrovia (NOR-Analyst-300415). This arrangement does not necessarily contribute to IFFs. But if any actors in this part of the chain are involved in illegal activities, it creates a "vertical silo" structure, allowing criminal actors to profit unencumbered.

The national make-up of buyers also seems to vary from site to site, as well as from country to country. In both Ghana and Liberia, some interlocutors reported that most buyers are domestic nationals, while others said most buyers are foreign nationals. In Ghana, for example, one individual reported that half of the buyers were Ghanaian and the rest were a mix of Nigerians, Indians and a few Chinese (GHA-Gov-140515). In Tarkwa province, a handful of Indian national buyers reportedly dominate the market and claim to cover the entire region. The Tarkwa province buyers reportedly pay good prices for the gold; they are trying to increase the volume of their trade as much as possible, and have links to the Indian jewellery trade (GHA-Analyst-230615b). In Liberia, one interlocutor stated that brokers are primarily Liberian (LBR-Gov-210515), while another said more foreigners than Liberians are buying gold from the mines (LBR-Corp-Min-190515). Liberians, other West Africans, Indians and Chinese were specifically mentioned as gold buyers in Liberia (LBR-CivSoc-200515; LBR-Corp-Min-190515).

As for export of Ghanaian gold, legal flows consist of licensed buyers (mining agents) purchasing gold and selling it to the PMMC or other licensed exporters. The PMMC exports gold to Switzerland, as well as to the United Arab Emirates and India (GHA-Gov-140515). Since 2009, PMMC exports have decreased by about half, as larger individual companies have taken over the market. The four largest Ghanaian companies that export gold originating from ASGM mines (AA Minerals, Asanska, Asap Vasa and Guldrest) all state they buy gold from licensed mines; they buy directly from the mines or licensed traders, depending on the company. However, a Guldrest representative acknowledged that licensed traders buy from unlicensed and unregulated sites (HRW, 2015).

In the past, only the PMMC could export ASGM gold, but this has recently changed. The Minerals Commission has begun to license other entities to export ASGM gold to encourage greater competitiveness in the market. The PMMC's monopoly allegedly resulted in inefficiency. This created business opportunities for illegal actors, who could offer higher prices for gold and more efficient services than their licit counterparts. Consequently, the Minerals Commission began to license other exporters to close loopholes and create a more competitive licit market (GHA-Gov-Min-150515). Despite the changes, illicit buyers and exporters are reportedly still able to offer higher prices for gold than their legal counterparts; they can pass it directly to other actors in the gold supply chain without paying royalties or other fees (GHA-Analyst-230615a). The PMMC argues the change results in more gold being smuggled out of the country (GHA-Gov-140515).

Liberia has a more free market system to regulate the sale and export of gold. To export gold, licensed dealers must take purchased gold to the ministry for evaluation, whereupon the dealer

pays 3% in royalties (LBR-Corp-Min-180515). However, once this has been paid, there are no restrictions or statistics regarding where or to whom dealers sell their gold (LBR-IO-210515). One state official stated that many dealers are following the formal process and declaring how much gold they are exporting, but it cannot be ruled out that gold is also being smuggled (LBR-Gov-210515). Official flows from Liberia go to Dubai and, in lesser quantities, Belgium (LBR-Gov-210515).

Buyers and dealers in Liberia are reportedly a mix of Liberian nationals and foreign nationals. It is commonly asserted that Liberian buyers work for Lebanese dealers based in Monrovia or that Lebanese financiers are backing Liberian dealers (LBR-CivSoc-200515; LBR-Gov-180515; LBR-Gov-210515). Lebanese business people are well represented in the Liberian business sector and prominent in many industries, reinforcing the perception of their activities in the gold market (NOR-Analyst-300415). In addition to Lebanese, it is also claimed that other West African nationals, Indians and, to a lesser extent, Israelis and European nationals are acting as buyers and dealers in Liberia (LBR-CivSoc-200515; LBR-Journ-200515; LBR-Corp-Min-180515; Vorrath, 2014).

It is critical to examine this point in the ASGM supply chain to understand its complexity, but also because actors here appear to be profit driven; they are no longer solely motivated to earn a living. Many interlocutors stated the greatest financial gains of IFFs are going to dealers and brokers. It is here that ASGM supply chains and related IFFs shift from an issue of sustainable livelihoods to one of crime. As one state administrator asserted, “illegal buyers, dealers and exporters are having a field day” (GHA-Gov-140515).

However, regardless of the nationality, country of operation, or role of actors at this stage in ASGM flows, it is difficult to distinguish the degree to which individuals are contributing to or profiting from IFFs. In ASGM flows, as with many forms of organised crime, licit and illicit activity overlap. For example, an individual may be licensed as a buyer, but not as an exporter; they may declare part, but not all of the gold being exported; or they may be fully licensed and declaring all exports, but purchasing gold from illicit miners.

Another phenomenon in transnational organised crime flows is the efficiency and efficacy of criminal networks. Their excellent (albeit illegal) business organisation makes them competitive, which is reflected in West African ASGM flows. As one state official explained, smugglers can pay premium prices for gold and still make a profit because they are more efficient than legal actors (GHA-Gov-Min-150515). Smugglers are reportedly willing to pay higher prices than their legal counterparts (GHA-Finan-130515). In addition, by building networks and vertical supply chains, criminal networks are continuously able to improve their efficiency and profit margins. As one mining specialist asserted, when dealers go into the bush in Liberia, they are already part of such networks (LBR-Gov-180515).

As in other illicit commodity flows, this phenomenon highlights one of the challenges in combating IFFs within the ASGM sector: reducing the profit differential between licit and illicit supply chains.

Box 4.2. Tracking IFFs

A dozen buyers may buy gold from a mine site with hundreds of workers, quickly increasing individual profits. Interlocutors state that "dealers are the ones making the big money" (LBR-CivSoc-200515), and "dealers and brokers get more benefit than the miners" (LBR-IO-210515). It is likely buyers are spending their profits domestically, purchasing luxury goods such as new cars and possibly reinvesting in mining ventures. The exorbitant incomes, when compared to that of diggers, miners and other community members, artificially inflates the economy. When economies are artificially inflated, it is more difficult for those attempting to act legally to amass savings, access financing and compete in local markets.

Buyers will sell their gold to dealers, who either export or smuggle the gold out of the country and region. The profits thought to be made by individual dealers again increases substantially. As many dealers are reportedly foreign nationals, in addition to spending profits locally on luxury goods, a significant portion of profits are likely invested off-shore. In particular, it is thought money is held or invested in the home-country of the dealer. Profits may also be reinvested back into the ASGM sector as pre-financing for mining operations.

Gold smuggling

While gold smuggling can take a number of forms, nearly all interlocutors agreed that it is generally easy to do, and that large quantities are smuggled. One form of gold smuggling is under-declaring the amount or value of gold exported. This is reportedly a more common tactic in Ghana, although it was speculated it happens in Liberia as well. There were several reports of licensed buyers not declaring all the gold sold to exporters, or of dealers under-declaring exports to increase profit margins (GHA-CivSoc-110515; GHA-Gov-130515). Purported methods to under-declare gold exports include using false receipts and downplaying the quality of gold exported (NOR-Analyst-300415).

Various interlocutors in both Ghana and Liberia also speculated that gold is being smuggled through airports (GHA-Gov-140515; Vorrath, 2014). It is reportedly possible to "pay a small amount of money to customs [or other officials] to look the other way" when gold is taken out of the country in suitcases (LBR-Gov-200515; LBR-Journ-200515). Similar findings have been reported elsewhere. An OECD study of mineral supply chains in the African Great Lakes Region found that stakeholders thought most Congolese gold was smuggled from Uganda by air through Entebbe Airport, with gold traders alleging the best manner in which to smuggle gold is via cargo or as hand luggage (Mthembu-Salter, 2015b). The UN Group of Experts (GOE) on Côte d'Ivoire also reports there is a high risk of smuggling gold out of the country via Abidjan airport; there is no process or risk assessment system to prevent the illicit trafficking of natural resources (UNSC, 2015).

In addition, gold is smuggled out of countries over land borders. In Liberia, this was the most commonly reported means of smuggling. It was widely agreed that a great deal of gold is being taken out of Liberia over its porous land borders: it is easy to walk or cross a river to Côte d'Ivoire or Guinea and sell gold (NOR-Analyst-300415; LBR-Corp-Min-190515). In 2013, the UN Panel of Experts on Liberia found that some traffickers are smuggling up to 10 kg of gold per week through Côte d'Ivoire and Guinea, where it is smelted into bullion and then trafficked on to the United Arab Emirates (UNSC, 2013). In parallel, the GOE on Côte d'Ivoire reported no customs

officers were deployed on a main route between Côte d'Ivoire and Bamako, Mali and that there were regular movements of goods on the route, some of which included gold smuggling (UNSC, 2015). Initiatives such as those spearheaded by the OECD have attempted to strengthen risk-based due diligence in mineral supply chains. Oversight remains weak in Liberia, however, as well as in neighbouring countries. There is no way of tracking gold or knowing to whom it is sold. As stated by a LEITI official, "individuals just wrap it up and take it across the border" (LBR-IO-210515).

While it was asserted that gold is smuggled into all of Liberia's neighbouring countries, there was nearly a universal consensus that most smuggling is to Guinea (LBR-CivSoc-200515; LBR-Journ-200515; LBR-Corp-Min-190515). This is consistent with regional trade routes, which flow from Liberia through Guinea and up into Mali (LBR-Gov-200515). Interestingly, gold exports from Mali dropped dramatically when the Ebola crisis hit (Diallo and Bavier, 2015). While unconfirmed, this could reinforce the belief that gold from Liberia (and Guinea) is exported from Mali and that restriction of movement from Liberia and Guinea to Mali during the Ebola crisis also restricted illicit gold flows.

A major consideration when trafficking gold is ease of transport. In Liberia, miners and buyers are taking gold over the border because it is easier and cheaper than transporting gold to Monrovia (LBR-Journ-200515; LBR-IO-210515). Numerous actors in Liberia's mining sector reported there are buyers just over the border in Guinea who will buy gold mined in Liberia. It is easier for Liberians near the border to take gold to the next country, a trip that can be as short as five to ten minutes, than to sell it in Monrovia (NOR-Analyst-300415).

Another important factor in the smuggling of gold is ethnic or tribal connections. For people with common identities, cross-border interactions are quite easy (NOR-Analyst-300415). The role played by the Mandingo tribe as buyers and dealers in the ASGM trade in Liberia was repeatedly referenced. One interlocutor reported that Mandingos played a significant role in influencing prices and sponsored a large number of mining operations (LBR-CivSoc-210515b). In certain regions and mining camps, the Mandingo tribe dominate gold brokers; some Liberians active in the mining industry believe the Mandingo are responsible for a considerable amount of smuggling (LBR-CivSoc-210515; LBR-Gov-200515; LBR-CivSoc-210515). This assertion is repeated by the UN Panel of Experts on Liberia; it believed most of the smuggling trade was controlled by Mandingo and Fulani traders who repatriate capital through informal banking mechanisms (UNSC, 2013). A Mandingo broker explained he made monthly tours to mining areas in Guinea, Liberia and Côte d'Ivoire where he has relationships with miners. He would then sell the gold to larger dealers, who were also mostly Mandingos. As the buyer stated, he can buy and sell gold because they are all Mandingos and we trust one another (ANCIR, 2015).

There is, however, resentment against Mandingos in Liberia. Many Liberians consider them Guinean, although they have lived in Liberia for many generations (LBR-Gov-180515; LBR-Gov-200515). Thus, it was unclear whether the Liberian government's creation of co-operatives was an honest effort to stop brokers from smuggling gold or a discriminatory policy aimed at pushing the Mandingos out of the industry (LBR-Gov-200515).

Figure 4.2. The Mandingo of West Africa

Source: Joshua Project (2015), "Manya, Mandingo of Liberia", http://joshuaproject.net/people_groups/16122/LI.

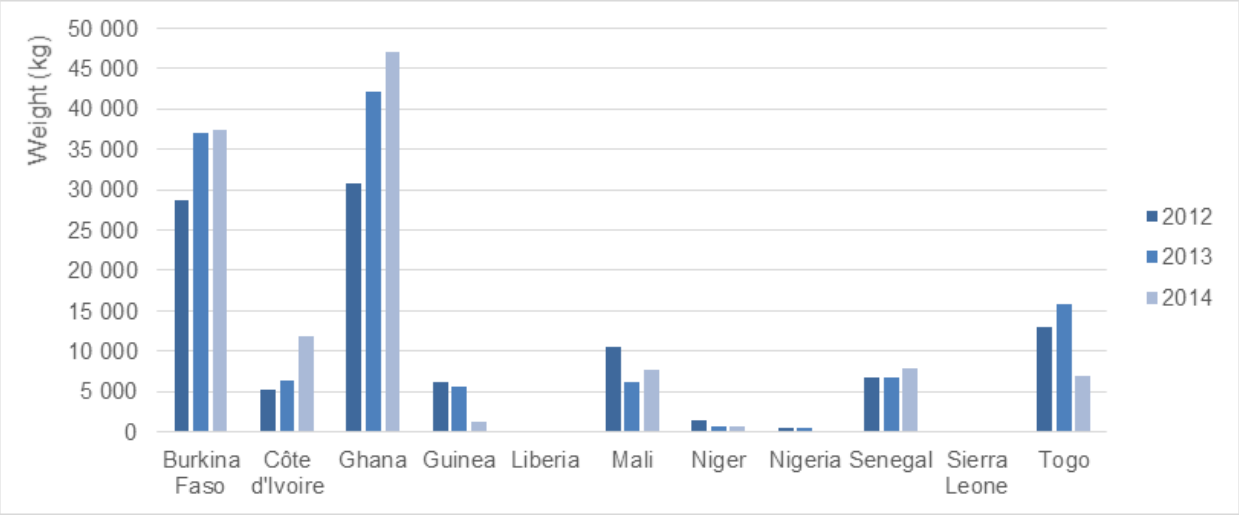
This example of a tribe or ethnic group turning to illicit activities when ostracised by actors in the legal market is not an isolated phenomenon. In the West African context, cross-border tribal and familial connections are conducive to the transnational movement of various kinds of illicit goods. The accusations levied against the Mandingo people regarding ASGM are not unique, but rather exemplify a trend also found in other illicit flows in West Africa.

Regional exports points

Due to porous borders and alleged pervasive smuggling, it is difficult to confirm from which cities, or even countries, ASGM gold from Ghana and Liberia is exported out of the region. Interlocutors in Ghana tend to believe gold enters the formal supply chain within the country and is exported from Ghana. In contrast, Liberian interlocutors thought a large portion of gold was smuggled out of the country before being smuggled or exported out of the region.

Official Swiss import figures tend to buttress both allegations (Figure 4.3). Regionally, Ghana is the biggest gold exporter of gold to Switzerland. Despite widespread ASGM in Liberia, Switzerland customs figures report that no gold has been imported into Switzerland from Liberia. Furthermore, despite little to no gold production, Togo exports more gold to Switzerland than Liberia, Guinea and Sierra Leone combined (Swiss Customs Administration, 2015). In turn, it is probable ASGM gold from Liberia is smuggled to neighbouring countries, before being exported out of the region through formal supply chains.

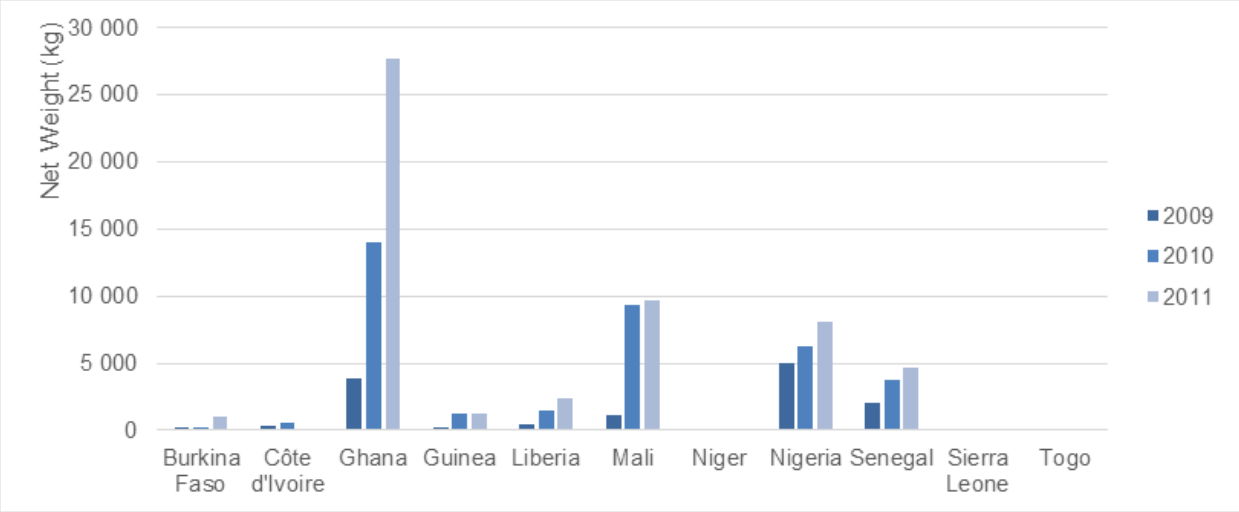
Figure 4.3. Gold imports to Switzerland from West Africa



Source: Swiss Customs Administration (2015), *7108 - Gold, incl. Gold Plated with Platinum, Unwrought or not Further Worked than Semi-manufactured or in Powder Form* (database), www.swiss-impex.admin.ch/pages/bereiche/waren/result.xhtml.

Statistics on gold imports to the United Arab Emirates are more difficult to ascertain (Figure 4.4). Available data reinforce that Ghana is by far the regional leader in gold imports to the United Arab Emirates from West Africa. In addition, a small amount of gold, far less than the estimated output of Liberia, was imported into the United Arab Emirates from Liberia. As of 2011, other major West African exporters to the United Arab Emirates were Mali, Nigeria and Senegal (UN comtrade, 2015). Much has changed since 2011. However, the figures again support the theory that ASGM gold in Ghana enters the legal supply chain in the country prior to export, while Liberian ASGM gold is smuggled out of the country before it is exported out of the region.

Figure 4.4. Gold imports to the United Arab Emirates from West Africa



Source: UN Comtrade (2015), *UN Commodity Trade Statistics Database* (database), http://comtrade.un.org/db.

Role of transit and destination countries

At its core, organised crime is basically a system of supply and demand. There is a demand for products – be they licit or illicit – that criminal actors seek to supply and exploit for profit. To understand IFFs related to the ASGM sector in West Africa, it is essential to identify the primary consumers of gold and beneficiaries of the trade. Taking this analysis one step further, the role of transit countries and the actors moving the gold must be identified to understand how destination countries are influencing IFFs in West Africa. When this wider viewpoint is applied to the West African ASGM gold flow, it becomes apparent major destination countries, specifically China and India, and transit zones, specifically Dubai and Switzerland, play an important role in driving and enabling IFFs.

Foreign demand for gold

India and China lead the world in gold demand, which is unlikely to subside (Holmes, 2015). In China, as consumers have become wealthier, the demand for jewellery has increased; investing in gold and using it in the expanding manufacturing industry has also increased gold-related investments and provision of gold banking products in China's banking system (WGC, 2014). In addition to public demand, the People's Bank of China (PBoC) revealed in July 2015 that its gold holdings had increased since 2009 by 604 t to 1 658 t. China is now the sixth largest holder of gold in the world (Sanderson, 2015). Gold imports to China are unlikely to subside as China's expected demand for gold will grow at least 20% by the end of 2017 (WGC, 2014).

There is an ongoing high demand for gold in India as well. Towards the end of 2014, as demand for jewellery surged almost 60%, India regained its position as the world's top gold consumer, overtaking China (Sanderson, 2014). Cultural factors are a significant driver in the demand for gold. "In India, everyone – even the poorest of the poor – invests in gold", says economist Surjit Bhalla (Ray, 2014). "Demand for physical gold in India never really dies," says Rajesh Popley, director of the Popley Group, which has jewellery stores in Mumbai and Dubai, "There may be a dip for a while, but it always bounces back. It's an emotional, sentimental and religious purchase" (Hashmi, 2014). In addition to cultural drivers, gold prices have prompted Indian buyers to increase purchases (Sanderson, 2014). Increased household wealth, rapid urbanisation and higher economic growth are expected to continue to push the demand for gold in India for the next three to five years (Hashmi, 2014).

Demand for gold is so high in the two principal destination countries that China and India have sometimes consumed more gold than the world is officially mining (Williams, 2014). Between 1 January and mid-February 2015, over 315 t were withdrawn from the Shanghai Gold Exchange (SGE), the central hub through which the vast majority of gold in China flows; this exceeded the 300 t of gold newly mined around the globe during the same period (Holmes, 2015). Analysts predict that continued strong demand from India could also contribute to significant supply deficits (Williams, 2014). It is likely that West African ASGM gold is supplying the Chinese and Indian demand for the precious mineral; it has been repeatedly reported that Chinese and Indians are heavily involved in the West African ASGM trade and that they are buying gold in both Ghana and Liberia (LBR-CivSoc-200515; GHA-CivSoc-110515).

The gap in supply and demand provides profitable opportunities for smugglers. In India, supply deficits have resulted in a booming trade in smuggled gold. In 2013, the Indian government sharply raised import duties on gold to 10% (Ray, 2014). Squeezed supplies and steady Indian consumer demand for jewellery drove up local prices in India (Martin and Taylor, 2014). The high duty made illegal shipments highly profitable and criminal groups exploited the opportunity

(Sharma and Das, 2015). Somasundaram PR, managing director in India of the WGC, reported that "unfortunately, it appears that smuggling has made a comeback to fill the gap in official gold supplies" (Christensen, 2014). In turn, India is seeing a record rise in smuggling, with an estimated 700 kg of gold smuggled into India every day (Ray, 2014). The WGC estimates that 175 t of gold were smuggled into the country in 2013 (Sharma and Das, 2015) and another 200 t in 2014 (Hashmi, 2014). Applying the world gold spot price as of 1 June 2015 (USD 38.20 per g) to these estimates, an estimated USD 26.7 million in gold is smuggled into India every day as of 2014 (Gold Price, 2015).

The methods to smuggle gold into India shed light on possible smuggling tactics in West Africa. Many smugglers transport gold into India by air, as well as by sea (Hashmi, 2014). This buttresses assertions that gold is being moved out of West Africa, specifically Ghana, through airports and ports (GHA-Finan-130515). In India, when transporting gold by airplane, passengers have been caught concealing bars and coins in their luggage or their clothes; many others have arrived wearing gold and claiming it to be personal jewellery. Some smugglers have hidden gold bullion in airplane lavatories to pick up later (Hashmi, 2014); others have melted gold into seed-shaped chips and hidden it in dates from Dubai (Ray, 2014). Some smugglers have had human couriers swallow nuggets or hid gold bars in dead cows (Sharma and Das, 2015).

Understanding China's gold market is more difficult. Mainland China does not publish its trade statistics and there is little publicly available information on gold flows into mainland China (WGC, 2014). The recent shift in policy that allows for gold to be imported through Beijing also hinders transparency. Gold has traditionally been imported from Hong Kong into Shenzhen, where nearly 70% of Chinese gold jewellery businesses are located. Allowing gold imports through Beijing enables China to obtain gold directly rather than via the Hong Kong route, which can be better monitored (Ananthalakshmi, 2014).

The lack of data about Chinese imports frustrates efforts to understand global gold flows and the destination of ASGM gold from West Africa. This would be an especially important aspect for understanding ASGM flows and related IFFs in Ghana and Liberia since Chinese nationals are involved in both countries' ASGM sectors.

Transit countries

The city of Dubai in the United Arab Emirates and, to a lesser degree, Switzerland have both been identified as primary transit points for West African gold. Actors in West Africa, as well as China and India, have identified Dubai as a major transit point. Since the DMCC was established 12 years ago, Dubai has increased its market share of global gold flows significantly; USD 75 billion worth in gold bars and jewellery entered and left Dubai in 2013. The DMCC and local gold refineries are emphasising the processing of African gold due to Africa's geographic proximity and rich mining potential (Fitch, 2014). This reinforces observations in West Africa that gold is being sold in or to Dubai (LBR-CivSoc-200515; GHA-Finan-130515; GHA-CivSoc-110515).

In 2012, the DMMC, the free zone's regulator for precious metals and gems, implemented mandatory requirements on refiners with respect to responsible sourcing through the Dubai Good Delivery (DGD) standard, which is based on the *OECD Due Diligence Guidance*. As of May 2014, independent audits had found three refiners compliant, although the thoroughness and integrity of the audit of the biggest refiner have been brought into question (Martin and Taylor, 2014; Fitch, 2014).

Despite the DMCC's implementation of the DGD standard, Partnership Africa Canada believes that Dubai lacks a coherent, comprehensive and universally applied strategy to apply due

diligence or chain of custody procedures over its gold supply. In particular, documentary checks are minimal in the case of hand-carried gold imports, and buyers are not verified. Weak chain of custody procedures enable exporters to deliberately disguise or fail to know the origin of their exported gold and weak export procedures allow for gross under-declaring of gold (Martin and Taylor, 2014).

Testimonies from UAE jewellers suggest that smuggled gold is likely to be absorbed in the jewellery market, or exported to countries like India (Martin and Taylor, 2014). Indian authorities have reported that the smuggling of gold from Dubai and Sharjah in the United Arab Emirates is on the rise (Ray, 2014). For example, in February 2015 customs officials in Gujarat arrested six people leaving an airport with 60 kg of gold worth more than USD 2.7 million. Three of the six had arrived on an Emirates flight from Dubai (Sharma and Das, 2015).

In turn, Dubai is considered an important transit hub for gold and IFFs stemming from the West African ASGM sector for three reasons: assertions that large quantities of West African ASGM gold are smuggled or exported illicitly to Dubai; reports of lack of oversight over Dubai gold refineries; and increasing amounts of gold being smuggled into India from Dubai.

Switzerland is also cited as a receiver of West African ASGM gold. In its 2013 “Background Report: Commodities”, the Swiss government recognised that it risks importing illegally extracted gold due to its important position in the gold trade, and in processing and refining gold. In response, Switzerland supports a number of voluntary initiatives and instruments to help companies achieve sustainable extraction of natural resources (FDFA, FDF and EAER, 2013). Switzerland continues to apply voluntary social responsibility standards (FDFA, FDF, and EAER, 2015); however, the Berne Declaration argued in a September 2015 report these voluntary measures are largely ineffective (Guéniat and White, 2015).

Switzerland continues to further elaborate and implement multilateral standards in the commodities sector. But unless such action is co-ordinated internationally, Swiss companies may suffer from disadvantageous conditions in the context of intense competition among locations (FDFA, FDF and EAER, 2015). As such, while Switzerland has strengthened due diligence, its import of gold remains a potential point of vulnerability that criminal groups could exploit to funnel smuggled gold into the formal supply chain.

5 Implications and development impact of ASGM on Ghana and Liberia, as well as on the region

The consequences of illicit mining and smuggling are significant, multifaceted and complex. ASGM tends to impact negatively on the environment and the health and safety of diggers, miners and surrounding communities. These effects are perpetuated and exacerbated by criminal actors and IFFs. In addition, negative effects that can be linked more directly to IFFs are a loss of government revenue and the potential to trigger and/or perpetuate regional instability.

Loss of government revenue

ASGM IFFs, especially the smuggling of gold, are divesting governments of much-needed revenue. When gold is not passed through legal channels and governments are unable to charge export royalties, countries do not benefit from their mineral resources. As stated above, it is thought large quantities of gold are smuggled out of both Ghana and Liberia. Interlocutors reported that many foreign nationals are not selling their gold in Ghana, but rather smuggling it out of the country. This deprives the Ghanaian government and the country's economy of much-needed revenue (GHA-Analyst-230615a). In Liberia, it is believed the vast majority of gold is being taken out of the country illegally, especially to Guinea (LBR-Gov-210515).

In addition to the smuggling of gold, the low number of ASGM operators and buyers who procure – and pay for – a licence also deprives governments of revenue. In Liberia, total government revenue generated from small-scale miner receipts amounted to USD 756 950 during the 2011/12 financial year (Gborglah et al., 2014). However, interlocutors reported that only 50-75% of miners were licensed, and in some areas even lower percentages (LBR-Gov-210515; LBR-CivSoc-210515a; LBR-CivSoc-210515b). As such, it is likely Liberia is losing out on millions of dollars in licensing fees. This revenue could be instrumental in improving capacity to better regulate the industry.

The loss of government revenue – which could be used for development, regulation and services - is particularly critical (LBR-Gov-210515). Moreover, the lack of governmental resources is a major enabler of the illicit ASGM trade. Governments in both Ghana and Liberia are unable to fund oversight mechanisms. Reducing IFFs will greatly contribute to state resources. Correspondingly, it would strengthen the ability of states to deploy additional capital to broader state-led development initiatives (ACET, 2014).

Regional instability

Former combatants are reported to engage in and profit from ASGM, contributing to potential future insecurity. Such individuals are often also involved in the trafficking of drugs and artisanal shotguns. They have been described as living "in semi-organised autonomous groups outside of any state authority, often under the direct influence of former 'generals' who commanded rebel factions during the Liberian civil conflict" (Vorrath, 2014). To inform its 2013 report, the Panel of Experts on Liberia visited remote villages deep in the forest. It found large numbers of young men – many former combatants from both Liberia and Sierra Leone – involved in gold mining, as well as drug trafficking. Liberian forest rangers reported to the Panel that those miners were often extremely aggressive to outsiders and government officials (UNSC, 2013). Similarly, a large number of disaffected young men are reported to be working in dozens of gold-mining camps along both sides of the border area between Liberia and Côte d'Ivoire. "Lawlessness" is reported at mining sites in Côte d'Ivoire where several cases of murder and extrajudicial killings have been reported in (UNSC, 2015).

No direct links between the ASGM sector in Liberia and Ghana and the financing of armed groups were identified. However, there is evidence that ASGM IFFs are financing rebel actors in other West African states.

In Côte d'Ivoire, illicit ASGM and gold smuggling is a key component of the business empire of Lieutenant-Colonel Issiaka Ouattara, commonly known as "Wattao" (Bavier, 2015). According to UN investigators, some 15 800 diggers are active on the Gamina site, which is controlled by army elements loyal to Wattao. The mine produces about 2.5 t of gold annually, worth USD 96.8 million at the time of reporting. At Gamina, and other mining sites controlled by Wattao, gold is bought and sold in a closed-pipe circuit. This forces diggers to sell only to specific buyers at around 60% of the world gold price. UN investigators estimate that in addition to Wattao's gold earnings, he makes more than USD 1.7 million a year in fees for security provided around the mine (UNSC, 2015). It is believed much, if not all, of the gold produced by Wattao's mining sites is smuggled out of the country. Producing an estimated 13.8% of the country's official annual production, this translates into some USD 3 million in lost royalties to Côte d'Ivoire (UNSC, 2015).

Based on annual production and security fees, it is estimated Wattao's mines generate enough revenue to fully cover the salaries of the 500 armed elements. Most have pledged allegiance to Wattao personally. Wattao, and the broader network of former rebels who control loyalist fighters, represent a parallel force to the military that threatens stability and security in Côte d'Ivoire (Bavier, 2015). In addition, such military strength has allowed Wattao to secure undisputed control over illegal gold, as well as diamond operations in at least three areas of the country. This jeopardises formalisation efforts and reforms of the Ivorian ASGM sector (UNSC, 2015).

While not an immediate threat in Liberia and Ghana, the experience of Côte d'Ivoire illustrates the vulnerability of the ASGM sector to exploitation by armed groups. This greatly contributes to instability and insecurity, as long as the sector operates largely outside of the formal economy.

Money laundering

There was also broad consensus among interlocutors that gold is not being used to launder money within West Africa. However, this does not mean ASGM gold mined in West Africa is not used to launder money elsewhere. Adept criminal enterprises will actively seek to insulate their criminal activities by intermingling legitimate and illegal interests. They will exploit financial products and sectors perceived to be more lightly regulated than other areas (AUSTRAC, 2013).

In addition, as anti-money laundering (AML) controls are strengthened, illicit actors are forced to look further afield for sectors through which they can launder criminal cash (Grossey, 2015). In turn, the gold sector is attractive to criminal actors. According to the Financial Action Task Force (FATF), gold and the gold market are enticing to criminal syndicates wishing to hide, move or invest their illicit proceeds. This is due in part to the cash-intensive nature of the market, as well as the anonymity of gold and related transactions, which make tracking gold origins difficult (FATF and APG, 2015).

Gold can be converted (and melted down) into various forms, which enables anonymity when transferring value. This makes gold easy to conceal and move across borders and convert back into other financial forms with a low risk of detection. Criminal organisations use this movement of gold to give the appearance of legality to the flow of funds of licit or illicit origin. It also allows the gold itself to be transferred to places more conducive to ongoing criminal activity (FATF and APG, 2015).

Notably, as gold enables criminal actors to engage in anonymous transactions, it allows criminals to remain anonymous and distance themselves from gold transfers. Criminals may recruit individuals or professional facilitators to buy gold on their behalf (AUSTRAC, 2013). This means that law enforcement agencies have little to help them identify the source of the gold or the identity of the seller (FATF and APG, 2015).

Lastly, due to the inherent value of gold, and its worldwide exchangeability, retail gold is often seen as a viable alternative to cash to settle debts and distribute profit from criminal activity (FATF and APG, 2015).

6 Concluding remarks

ASGM IFFs involve a complex web of actors, both domestic and foreign. They deprive governments of badly needed revenue that could be applied to infrastructure, economic and social development programmes, and in West Africa, they have a history of contributing to regional instability and insecurity. As is the case with many forms of organised crime, approaching ASGM and related IFFs as purely a criminal matter would be counter-productive. ASGM plays an important role in development, and brings sustainable livelihood opportunities to the countries' populations, in the absence of other options.

This paper does not set out to formulate a set of prescriptive policy recommendations that might contribute to fight against ASGM-related IFFs. Rather, it makes a series of observations with a view to highlight areas in which future action could serve to reduce the contribution of ASM to the IFF sector. These observations are grouped into five general thematic areas:

1. Adopt a development approach, supporting formalisation of the ASGM sector
2. Reassess policies favouring LSM and encourage co-operation between the ASM and LSM sectors
3. Implement due diligence policies across the entire ASGM supply chain
4. Enforce sanctions and prosecute those engaging in gold smuggling
5. Support efforts for regional economic co-operation and integration

In addition to these observations, additional research to improve current understanding of IFFs is needed. A greater knowledge of IFFs will better position stakeholders to identify points in the supply chain where interventions are likely to have the greatest impact, and actors with the greatest influence on the ASGM sector and supply chains.

Adoption of a development approach, supporting formalisation of the ASGM sector

It was consistently repeated in both Ghana and Liberia that addressing illicit ASGM is a livelihood and not a criminal challenge. The sector can create jobs and increase government revenues that could be used for development. Although, if unaccompanied by access to social protection for miners, technology, finance, and information and support services, reform of the sector would not have the impact intended. Without a regulatory environment that enables and promotes responsible mining and legitimate trade, or social protection, ASGM diggers and miners, as well as the environment, remain vulnerable to exploitation by illicit actors (OECD, 2013).

Adopting a development approach and supporting sustainable mining practices will require addressing pre-financing. Sustainable mining practices will also require greater investment into more environmentally-friendly, efficient machinery at the outset.

Formalising the ASGM sector is also complicated and can have unforeseen results. When developing policies, attention must be paid to their impact on diggers and miners, whether they will reduce the profit differential between licit and illicit supply chains, and the feasibility of

enforcing regulations. In working to formalise the sector, actors should look outwards to other gold-producing regions that have implemented ASM formalisation programmes.

Reassessment of policies favouring LSM and encouraging co-operation between the ASM and LSM sectors

Policies in West Africa for formalising the ASGM sector have often yielded problematic results. They have generally prioritised LSM investment, attempting to establish gateways for foreign and multinational mining companies, over support for the ASGM sector (Maconachie and Hilson, 2011). Legislation formalising the ASM sector is a positive step to combat the negative effects of the sector, yet in the absence of increased political support for the industry, ASM actors will remain marginalised.

A significant advantage of the LSM sector over ASM is the government's ability and willingness to engage with and influence policy institutions. All mining districts in which Ghana's Minerals Commission operates district offices have associations or co-operatives of ASM operators but their members have not managed to engage with policy makers to the same degree as representatives of the LSM sector. In turn, the latter have been able to influence issues of policy and law, while ASM has had little to no representation (ACET, 2015).

Favouring LSM investment over the formalisation of ASM gives foreign companies an advantage in accessing land. Ghanaian policies encouraging foreign investment and delays in formalising ASM activities, for example, have created a land shortage. This has reduced the opportunities for ASGM miners considerably. LSM and mineral exploration companies now collectively hold more than 40% of the country's gold-bearing territory, with limited viable land available for prospective ASGM miners. This, in turn, discourages people from entering the registration process entirely (Maconachie and Hilson, 2011).

One way to foster co-operation is to provide avenues, or even mandate, for LSM companies to partner with ASM operations. Large companies could allow small-scale miners to work unused land, for example (GHA-CivSoc-110515). Co-operation between ASM and LSM could enable ASM operators to access finance and technical support. This would curb opportunities for illicit actors to control supply chains. An LSM company would, for example, adopt several small companies and provide technical and business support. This could include guaranteeing their borrowings from commercial institutions (Maconachie and Hilson, 2011). Further, co-operation allows ASM miners access to working capital, and promotes legal, environmental and regulatory compliance.

Improvement of due diligence policies across the entirety of the ASGM supply chain

It is difficult to combat IFFs with domestic action alone when international actors are complicit or enable illicit activity (GHA-Gov-Min-130515), and the inclusion of supply chain actors in due diligence activities is essential. This implies the active participation of transit and destination countries to curb illicit activity in the sector. Increased participation of China, the United Arab Emirates, Turkey, etc., as well as regulations passed in the United States, are designed for that purpose. The European Union followed suit with the adoption in May 2017 of Regulation (EU)

2017/821.[3] The economic strength of transit countries must also be considered, especially those with refineries. As one observer stated, although regional discussions are taking place, "the [West African] region is so poor, there cannot be a stand-alone corrective" (NOR-Analyst-300415).

Due to the complexity of the sector and its supply chains, co-operation between agencies and actors at the regional, national and local level is necessary to improve due diligence implementation. In addition to due diligence implementation by companies across the supply chain, systems should be put in place that provide accountability over state activities. Accountability measures could include horizontal accountability (checks and balances between state agencies); vertical accountability (public officials being held accountable by citizens, the media, civil society and other organisations); and diagonal accountability (citizens operating through government institutions to exercise oversight over state actions). For example, in addition to the Minerals Commission of Ghana, co-operation efforts could also include the Bank of Ghana, immigration authorities and officials at the local level (chiefs, landowners, etc.) (GHA-Gov-Min-150515). Groups such as the National Coalition of Mining in Ghana have been active in this regard, bringing together relevant actors to advocate for changes in mining policies (GHA-CivSoc-110515).

Box 6.1. OECD Due Diligence Guidance

The OECD Due Diligence Guidance provides a practical five-step framework for companies across global mineral supply chains. This international standard is global in its application. It provides detailed recommendations to help companies respect human rights and avoid contributing to conflict through their mineral purchasing decisions and practices. The OECD Implementation Forum brings together companies, governments and civil society organisations to exchange and overcome due diligence implementation challenges.

Numerous interlocutors suggested increasing, or in some cases setting-up, gold traceability as a way to improve due diligence. Company management systems and risk identification and assessment – as set out in the *OECD Due Diligence Guidance for Minerals* under Step 1 and 2 – could include a system of controls and transparency over the mineral supply chain. This can take the form of traceability or chain of custody systems. It is hoped that in addition to identifying IFFs, such a system would pressure destination countries (GHA-Gov-Min-150515).

Liberia is working on developing chain of custody processes. These would require buyers to submit vendor forms before they can renew their licences (LBR-Corp-Min-180515; LBR-Gov-210515). However, traceability and due diligence requirements cannot be limited to countries where minerals are extracted, or even to West Africa. Due diligence must be implemented across the entire supply chain, including activities in transit and destination countries.

Enforcement of sanctions and prosecution of those engaging in gold smuggling

Laws, standards and procedures are only as strong as their enforcement, and although a development approach is advocated as a policy response filter, governments must take firm

[3] See https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0821. This EU Regulation lays down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas in accordance with the 5 steps of the OECD Guidance. It will enter into force in January 2021 (see https://www.oecd.org/fr/daf/inv/mne/mining.htm).

action against criminal actors in the sector. Within West Africa, it has been asserted that penalties for offenders are insufficient. At times firm action has allegedly not been taken due to "dirty money" or the payment of kick-backs and bribes (GHA-Finan-130515; NOR-Analyst-300415). Outside of West Africa, it is argued that regulation in transit states, where refineries are located, has not yet managed to drive sufficient changes in producing countries. This may change as due diligence in the gold supply chain is relatively young, but it is a factor for consideration. To be effective, sanctions would need be enforced against actors along the entirety of the supply chain - from pre-financing, to the mine, to export, to the refinery and to the destination – where applicable.

Support efforts for regional economic co-operation and integration

Domestic action alone will not be enough to reduce gold smuggling from Ghana and Liberia, royalty rates are an important enabler of IFFs derived from ASGM, especially in the Liberia-Guinea-Mali context (LBR-Gov-180515; LBR-Corp-Min-190515). Given the ease of crossing the borders of the three countries, buyers can smuggle gold to the country with the lowest royalty rate. As such, regional harmonisation and efforts to standardise gold pricing are necessary to reduce the motivation to smuggle gold across borders to neighbouring countries.

Three elements describe royalty rates harmonisation: an equalisation of rates, a common definition of national rate bases and a uniform application of agreed rules. Harmonisation reduces the impetus for capital, in this case gold, to flow from one country to another. It also forestalls a race-to-the-bottom in regards to the royalties charged by West African nations on gold exports (Mansour and Rota-Graziosi, 2013).

Efforts have been taken to create a regional framework (LBR-Gov-210515). Since its creation in 1975, ECOWAS has been promoting economic co-operation and regional integration (ECOWAS, 2015). The region's leaders adopted ECOWAS Vision 2020 in 2007. In so doing, they hoped to create an environment for the business community and general public to work to realise development aspirations jointly: equitable and broad-based growth, sustainable development and poverty eradication (ECOWAS, 2015). It is promising that ECOWAS is working to standardise tax regimes, a major talking point at meetings (GHA-Gov-130515).

The African Development Bank (AfDB) advocates increased integration as a key aspect of its strategic plans for the region (AfDB, 2011). In particular, the AfDB aims at strengthening ECOWAS and the West African Economic and Monetary Union (WAEMU), selected regional institutions and national entities to enable them to realise the integration agenda more efficiently. Efforts are focusing on effective policies, implementing regional projects and integrating the financial sector (AfDB, 2011). The AfDB is also doing a study on incentives and tax breaks (LBR-GERGov-180515).

Although such initiatives are promising, much remains to be done. For example, discussion about taxes tends to centre on LSM taxation regimes and not those of ASM, as is described in the Africa Progress Panel report *Equity in* Extractives (Africa Progress Panel, 2013). Also, the private sector and international financial markets are potentially powerful catalysts in regional integration and thus, representatives from both should be engaged as proactive stakeholders.

Until a regional system is in place, it is likely that royalty rates will continue to fall, which will deprive West African countries of the economic benefits of their mineral wealth.

Annex A. Methodology

The case study draws on interviews with over 35 different sources, as well as an extensive literature and media review. Interlocutors interviewed included state officials, actors from the private sector, academics, independent non-governmental organisations (NGOs), the United Nations (UN) and other multilateral bodies, journalists and think tanks. Interviews were conducted in Accra, Ghana and Monrovia, Liberia from 10 to 23 May 2015, as well as at a small-scale mine site in Liberia. Interviews were also held remotely from April to December 2015. More than 100 sources were reviewed to inform the literature review, many of them referenced by the case study.

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The interviews were in person unless otherwise noted.

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