

Artisanal and small-scale gold mining in Ghana

Evidence to inform an ‘action dialogue’

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Ghana's artisanal and small-scale mining (ASM) sector continues to grow in size and significance. Its contribution to wealth creation, employment and the economy make it one of the nation's most important livelihood activities, directly employing an estimated one million people and supporting approximately 4.5 million more. Yet the majority of miners in Ghana operate informally, without the security of a licence. Formalising Ghana's ASM sector is therefore a significant, timely and pressing developmental opportunity that must now be realised.

In January 2016 Ghana hosted a multi-stakeholder 'action dialogue' on artisanal and small-scale mining. This was the first of a global dialogue series on ASM, planned by the International Institute for Environment and Development (IIED) to facilitate the rights-based formalisation of ASM within a more inclusive and responsible mining sector. This paper provides background research on ASM in Ghana to inform the dialogue – giving an overview of the sector, identifying the barriers to formalisation, and offering some actionable 'ways forward'.

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Acronyms and abbreviations

ASGM	artisanal and small-scale gold mining
ASM	artisanal and small-scale mining
COCOBOD	Ghana Cocoa Board
EIA	environmental impact assessment
EPA	Environmental Protection Agency
GDP	gross domestic product
GNASSM	Ghana National Association of Small-Scale Miners
ICMM	International Council on Mining and Metals
LSM	large-scale mining
MDF	Mineral Development Fund
MinCom	Minerals Commission
MOFA	Ministry of Food and Agriculture
NAP	National Action Plan
NGO	non-governmental organisation
OASL	Office of the Administrator of Stool Lands
PMMC	Precious Minerals Marketing Corporation
UMaT	University of Mines and Technology

Summary

Introduction

In Ghana, artisanal and small-scale mining (ASM) has grown in size and significance. Its contribution to wealth creation, employment and the economy makes it one of the nation's most important livelihood activities, employing an estimated one million people and supporting approximately 4.5 million more. It accounted for 35 per cent of Ghana's total gold production in 2014, contributing almost 1.5 million ounces of gold. Yet the majority of miners in Ghana operate informally, without the security of a licence. Formalising Ghana's ASM sector is therefore a significant, timely and pressing developmental opportunity that must now be realised.

In January 2016 Ghana hosted a multi-stakeholder 'action dialogue' on ASM. This was the first of a global dialogue series on ASM planned by the International Institute of Environment and Development (IIED) to facilitate the rights-based formalisation of the sector. This paper provides background research on ASM in Ghana to inform the dialogue. It draws on existing literature, in-depth interviews and consultations with miners, communities, and key ASM stakeholders at the local, national and international level – providing an overview of the sector, identifying the barriers to formalisation, and offering some actionable 'ways forward'. The dialogue was held in collaboration with Friends of the Nation, Ghana.

Overview

ASM activities in Ghana are diverse, dynamic and largely poverty-driven

In Ghana, ASM employs a wide range of individuals. These individuals undertake diverse roles, from general labouring to skilled machining, supervising and bookkeeping. The majority are poverty-driven, from families and individuals trying to earn enough to survive, young students funding their school and university education, and farmers supplementing their income, to larger labour groups comprising men, women and children. Women in ASM are particularly marginalised. They may constitute up to 50 per cent of the labour force and are engaged largely as haulers and washers, and service providers. In addition to these poverty-driven livelihoods, there is also a burgeoning number of well-educated and well-connected 'opportunistic

entrepreneurs' who, due to their unique position and access to significant capital investment, are able to navigate the complex sociopolitical and bureaucratic landscape needed to obtain a licence.

The negative environmental and socioeconomic impacts of ASM are expressions of informality

The majority of miners in Ghana operate informally, due in part to barriers associated with obtaining land and a licence. This informality has given rise to a host of environmental and social problems in Ghana, such as the pollution and destruction of water bodies, degradation of arable farmland, as well as the negative health impacts of working in hazardous conditions; this has been the focus in the Ghanaian media, which tends to depict the entire ASM sector in a negative and damaging light.

Despite these generalisations, many local stakeholders and the academic literature recognise the significant and positive contribution of formal and informal ASM activities to community development in Ghana. These include the financing of the building of schools, clinics, houses and local infrastructure; providing regular employment; and invigorating farming, associated service industries and local markets. In addition, foreign miners, who under current law are working illegally, often fill gaps in the supply of finance, equipment and technical knowledge.

The greatest barriers to formalisation are a lack of land and access to finance – and getting a licence

The most significant challenges facing Ghanaian small-scale miners and communities identified through the literature review and stakeholder consultations are access to equipment and formal finance, and, most pressingly, difficulties in obtaining a licence. These all stem largely from a shortage of untitled land for ASM activities and accompanying geological records, without which it is difficult to obtain formal finance. Finance is needed to cover the cost of acquiring land and to meet the requirements of obtaining a licence and an environmental permit (though the latter is no longer a prerequisite). These issues both inhibit and discourage the majority of prospective miners – who are driven by poverty and lack sufficient social capital and financial and technical resources – from formalising their activities.

ASM needs a more supportive and inclusive policy framework

Despite past and ongoing efforts made to formalise and support ASM, such as re-categorising licensing, establishing a mining cadastre system, and undertaking geological research into areas potentially suitable for ASM activities, the policy framework for Ghana's mining sector has largely prioritised the development of large-scale activities. One of the questionable moves made has been the Inter-Ministerial Task Force on Illegal Mining, which conducts sweeps of illegal mining operations to arrest miners and seize equipment. Although there is a need to regulate and penalise those working illegally in the sector, this intervention has been ineffective at reducing illegal operations in the long term because it does not sufficiently address the root causes of informality: access to land, geological data, finance and ease of licensing.

One of the functions of Ghana's Geological Survey Department is to identify and geo-prospect areas suitable for ASM activities, but it is often absent from policy dialogue and policymaking on the sector. It also lacks funding, which means that land is not being regularly identified for miners. Without proven geological reserves, miners are less able to access finance from formal lenders – and turn to more informal alternatives. And while national and local government departments undertake community outreach programmes that crosscut a range of ASM issues, they do not address them directly; nor do they collaborate effectively with other national and local government units, or sufficiently embed ASM issues in district or municipal-wide development plans.

As a result, the development potential and support for ASM at the local level is not being fully realised and miners continue to be largely absent from local policy formation and decision making. The same is true at the national level where, despite quarterly meetings with the Minerals Commission and being represented in policy dialogues, the Ghana National Association of Small-Scale Miners is largely absent from discussions with other agencies. Changes to policy and regulations have sometimes gone ahead without full and in-depth consultations with their members. Crucially, women are significantly under-represented, if at all, in ASM associations and dialogue. This can make for high-level policies and laws that are largely ineffective when implemented because they do not reflect the realities on the ground, and do not always have buy-in from association members and miners generally.

The ASM sector could be supported and incentivised to formalise itself

If the current resources and efforts used to address the negative 'expressions' of informal mining could be replicated to focus on addressing the barriers to formalisation, Ghana's ASM sector could be supported

and incentivised to formalise itself. Aside from generating additional revenues, by bringing operations into the legal domain, the government of Ghana would be able to regulate ASM activities effectively, minimise negative environmental and social impacts, and potentially propel the sector on to a more sustainable development trajectory.

Three 'ways forward'

The following three solutions (or a combination of them) are proposed for formalising ASM and as a basis for the dialogue. They have been prescribed with the caveat that each should build on and further enhance existing initiatives, and emphasise the empowerment of women and better participation of artisanal and small-scale miners in decision making and policy formation.

1. Geological prospecting and land allocation

The dialogue should identify and unlock a sustainable source of funding (potentially through a minimal 'Robin Hood tax' on gold exports, earmarking part of the Mineral Development Fund, or other external finance) to identify land for ASM activities and devise ways in which to enhance the responsibilities of the Geological Survey Department. With access to land and geo-data, further dialogue must ensure that miners fully participate in the transparent and accountable management of awarding concessions for operations.

2. Access to finance

The dialogue should identify sources of finance for undertaking geological prospecting, to understand what lessons can be learnt from past finance initiatives, and identify what else is needed alongside bankable documents to unlock formal sources of finance and microfinance from institutions. With access to sustainable formal finance upfront, miners are able and incentivised (due to their legal standing) to formalise their activities; and can subsequently re-invest in support services to improve the efficiency, sustainability and developmental impact of their operations.

3. Streamlined licensing

The dialogue should ensure that government and partner efforts to streamline the licensing system benefits as many artisanal and small-scale miners as possible. Potential projects include: consolidating the application system online through a mining cadastre and e-licensing platform; re-categorising licences to include a medium-scale concession; improving district offices' resources to better support applicants; and other plans detailed in the Artisanal and Small-Scale Mining Framework (MinCom, 2015a). The dialogue should therefore explore how to further support these initiatives and further decentralise the licensing process, so that all miners can benefit from these streamlined services, thus enabling and incentivising even the most impoverished individuals to obtain a licence.

Introduction and methodology

This background paper was written as a resource for the 'action dialogue' on ASM in Ghana held in January 2016, to provide participants with a common understanding of Ghana's artisanal and small-scale gold mining sector and a basis for multi-stakeholder discussion. This section describes the paper's methodology. The study was completed using a fully participatory approach, through a review of the literature, extensive field research and several rounds of consultations to reflect a wide range of stakeholder perspectives.



1.1 Introduction

A four-day multi-stakeholder 'action dialogue' on artisanal and small-scale mining (ASM) took place in Tarkwa in Ghana's Western Region in January 2016. It was convened by the International Institute of Environment and Development (IIED) in collaboration with Friends of the Nation, a socio-environmental advocacy non-governmental organisation (NGO) in Ghana. This national dialogue is part of IIED's global dialogue series on ASM, which aims to identify and take forward solutions that facilitate the rights-based formalisation of ASM within a more inclusive and responsible mining sector. As Ghana provided the location for the first national ASM dialogue, this research paper aims to provide contemporary and credible background information on ASM in Ghana. It concludes with a postscript reflecting on the stakeholders' visit to ASM sites, undertaken as part of the dialogue.

1.2 Purpose of the paper

The purpose of this background paper is to:

- **provide a contemporary and credible information base** on ASM for a common understanding of the sector between participants, in order to underpin the dialogue
- **identify the main barriers to formalising ASM**, and outline potential ways to address them in order to formalise the sector, to be discussed at the dialogue
- **reflect on the value of the field visits** to ASM sites in Tarkwa, undertaken by the dialogue participants in order to contextualise discussions.

1.3 Methodology

The analysis and recommendations presented here draw upon extensive primary and secondary research conducted by an experienced team of international and local academics and researchers. An in-depth review of existing academic literature and policy documents on ASM in sub-Saharan Africa and Ghana was undertaken in order to contextualise the economic, livelihood and development opportunities of the sector, and identify the barriers to formalisation. The review also examined existing initiatives and incorporated the findings of contemporary ASM programmes and project documentation in Ghana, with particular reference to the Artisanal and Small-Scale Mining (ASM) Framework (MinCom, 2015a).

The desk research was complemented with findings from over 30 in-depth interviews and focus group consultations (conducted in English and Twi) in and around the communities of Dunkwa-on-Offin and Japa (Gyapa) during September 2015 with a range of local level stakeholders. These included licensed and unlicensed small-scale miners, farmers, municipal assembly and local government officials, assembly members, chiefs, and traditional council members. Speaking directly with ASM community members ensured that the voices, issues and suggestions at the local level could be heard and included in the national level dialogue, and through 'snow-ball sampling', assisted in identifying potential dialogue participants.

This background paper, however, is not solely based on the fieldwork with miners in these locations, but also on published academic work covering the varying regional and local dynamics in the country, and the extensive experience of the research team spanning over 30 years. A further 12 in-depth interviews and focus group discussions were held in October 2015 with key international and national mining and non-mining stakeholders in Accra and Tarkwa. In November 2015, the preliminary findings and proposed ways forward were presented for discussion at uni-stakeholder dialogues in Accra, and the draft executive summary circulated to gain feedback and incorporate the comments, concerns and perspectives of participants into the final version of this paper. Following the dialogue, this paper was once again circulated among key participants for review. The diagnostic therefore reflects the views of all stakeholders and has been produced through a fully consultative and participatory approach.

1.4 Structure of the paper

The paper first presents a review of the extensive literature and insights from the consultations with stakeholders, which provides a comprehensive picture of the past and current dynamics of the sector, and shares the different perspectives on ASM. Next, the stakeholders at the local and national level are mapped to identify their roles and involvement in policy formation and decision making on ASM in Ghana, as well as demonstrating their significance for ongoing efforts to improve the sector. A review of existing ASM initiatives in Ghana then identifies both the positive efforts of government and ASM advocates, as well as the 'space' for the dialogue and how it fits into existing structures. These analyses define in greater detail the potential ways forward that were the basis for discussion at the dialogue. Finally, the paper reflects on the value of the two-day field visits to ASM sites in Tarkwa.

BOX 1. DEFINING KEY TERMS

The following definitions reflect the Ghanaian context and are given to provide clarity to the paper and a common basis of understanding for the dialogue. The dynamic characteristics, context-specific nature and lack of distinct boundaries between different types of artisanal and small-scale mining operations mean that there is no internationally agreed definition.

Artisanal and small-scale mining

Artisanal and small-scale mining (ASM), also referred to in this paper as small-scale mining, is a collective term referring to low-tech, labour-intensive mineral processing and extraction (Hilson and Pardie, 2006). Though there is no exact definition for ASM in Ghana, the term is used almost exclusively to refer to licensed operations based on a concession not exceeding 25 acres, along with several other pre-qualifications legislated by the Minerals and Mining Act, 2006 (Act 703) where a small-scale mining licence applicant:

- must be a citizen of Ghana
- must be at least 18 years old.

Formalisation¹

Crucially, formalisation is not only concerned with whether there are legal, regulatory and policy frameworks in place that legalise ASM, allow for the purchase of a licence, and manage and regulate activities. But the extent to which such laws and regulations are successfully activated, implemented, and enforced by the relevant authorities is also central

to the formalisation process. The majority of ASM activities in Ghana are therefore considered informal.

Formal ASM – Operations that have the requisite licences and permits required by law, and conform to regulations, policies and management practices.

Informal ASM – Operations that do not have the requisite licences and permits required by law, but have a 'social licence to operate' from the local community, or other local actors who do not have power vested by the state to award mineral rights and concessions.

Legalisation / regularisation

The legality refers only to the regulatory framework that makes artisanal and small-scale mining legal. The Small-Scale Gold Mining Law of 1989 (PNDCL 218) legalised small-scale mining in Ghana through the purchase of a licence.

Licensed / legal ASM – Operations that have a mining licence and any environmental permits as required by law.

Unlicensed / illegal ASM – Operations that do not have a mining licence and any environmental permits as required by law.

Galamsey

An adulteration of the English phrase 'gather them and sell'. Used in Ghana to refer to illegal, unlicensed and informal artisanal and small-scale mining.

¹ See De Soto (2000); Lowe (2005); Hilson (2007); Spiegel (2012); Buxton (2013).

Mapping the context of ASM in Ghana

The inclusive, rights-based formalisation of Ghana's ASM sector is a significant, timely and pressing developmental opportunity that must be realised. The sector provides a vital livelihood activity for an estimated one million people; supports millions more in downstream and interlocking industries such as agriculture; and accounts for a third of Ghana's total gold production. ASM is dynamic and diverse, and its operations are characterised by a spectrum of activities and varying degrees of (in)formality.



2.1 Introduction

The increasing importance of artisanal and small-scale mining in Ghana

Gold accounts for over 95 per cent of Ghana's total mineral revenues (ICMM, 2015). In 2012 the country produced 3.3 per cent of the world's gold, with total exports worth US\$5.64 billion – making it the second largest producer in Africa after South Africa (KPMG, 2014). In terms of its relative importance to the national economy, in 2014 mining comprised over 35 per cent of merchandise exports,² with large-scale mining (LSM) operations accounting for approximately 65 per cent of production (Ghana Chamber of Mines, 2014; MinCom, 2015b; ICMM, 2015).

While large-scale gold mining remains an important source of wealth creation and contributor to Ghana's gross domestic product (GDP), in recent years the falling gold price³ and liberalisation of mining codes in West African competitor countries have contributed to decreasing investment, lower production volumes and the mothballing of operations in which several thousand workers have been retrenched in the country (Mustapha, 2014). Set against this backdrop – and the International Council on Mining and Metals' long-term life-cycle projections of stagnating production volumes, sales revenues and expenditures for large-scale mining (ICMM, 2015) – the economic and development potential of Ghana's ASM sector is being brought into ever-sharper focus. As one stakeholder succinctly said of ASM, "Its time is now."

Over the past two decades, ASM (see Box 1 for the definition of key terms) has continued to grow, and today, is one of *the* most important economic and livelihood activities in Ghana. While LSM provides a source of employment for an estimated 16,000 people and supports a further 66,000 jobs indirectly (ICMM, 2015), its contribution to labour is dwarfed by ASM, which directly supports over one million people and

creates additional employment opportunities for as many as five million more in downstream industries and markets.⁴ In 1989, ASM accounted for 2.2 per cent of Ghana's total gold production, yet by 2014 this figure had increased to 35.4 per cent, totalling almost 1.5 million ounces of gold (Ghana Chamber of Mines, 2014; MinCom, 2015b). In the academic literature this rise is attributed to the largely poverty-driven nature of ASM. It also recognises the wide range of push-and-pull factors affecting people's livelihoods and attracting them to the sector, and the trend in recent years of a growing proportion of well-connected, -educated and -financed entrepreneurs entering the sector who see it as a business opportunity (Barry, 1996; ILO, 1999; Hilson and Potter, 2005; Banchirigah, 2006; Hilson and Hilson, 2015). Indeed, currently in Ghana there is divergence among academics, policymakers and ASM stakeholders in this regard; with some conceptualising the sector as a largely poverty-driven activity, some seeing it populated solely by businessmen, and others suggesting a mixture of both. As Hilson and Hilson (2015) explore, the policy implications of this divergence are cause for concern.

As a wealth of literature now demonstrates, economic reforms implemented across sub-Saharan Africa (as well as in Ghana) during the late 1980s have fuelled a rapid increase in ASM activities over the past two decades. Tens of thousands of people made redundant under structural adjustment, and farmers struggling to cope in liberalised markets, sought immediate economic refuge in the sector; which, due to its low barriers to entry, has provided impoverished communities with a source of regular and relatively well-paid employment and livelihood opportunities (Banchirigah, 2006; Hilson, 2009; Bryceson and Yakovleva, 2010; Hilson, 2013; Hilson and McQuilken, 2014; Hilson and Hilson, 2015). However, despite the sustained and growing importance of ASM in Ghana – as well as its many positive economic and development characteristics (Box 2) – the sector continues to be overshadowed by the negative environmental and social impacts

² In 2014 mining contributed 38% of merchandise exports, of which gold contributed over 95% of the total mineral exports (Ghana Chamber of Mines, 2014).

³ The attractive gold price between 2010 and 2013, which reached a record high of around US\$1,900 per ounce in 2011, led to an increase in foreign direct investment in Ghanaian gold mining. The subsequent decreases to around US\$1,300 per ounce have slowed investment and production (ICMM, 2015).

⁴ Due to the nature of operations it is inherently difficult to obtain quantitative assessments of the exact numbers of people involved in ASM and those operating without a licence. However, it is generally accepted that there are an estimated one million artisanal and small-scale miners in Ghana and approximately 1,000 registered and licensed small-scale miners. If each licensee employs between 200 and 300 people then it can be extrapolated that there are an estimated 200,000 to 300,000 people working under the security of a licence. Thus the remainder (700,000 to 800,000) are operating informally and illegally. An estimated 70-80 per cent of artisanal and small-scale miners operating in Ghana, therefore, are informal, a figure supported by other estimates (Crawford and Botchwey, 2016). This figure is an estimate and despite being based on expert opinion and consultations with various academics, may be contested.

BOX 2. CHARACTERISTICS OF GHANA'S SMALL-SCALE MINING SECTOR

Livelihood characteristics

- ASM is estimated to employ at least one million people directly and supports four to five million more in associated service industries and markets (UNECA, 2011).
- The majority of artisanal and small-scale miners (with estimates ranging between 60 and 80 per cent) operate informally, without the security of a licence.
- It is a predominately rural livelihood activity that often interlocks with and invigorates agricultural activities in virtuous seasonal cycles.

Economic characteristics

- In 2014 small-scale mining accounted for 34.4 per cent of the total gold produced in Ghana, compared with 2.2 per cent in 1989 (MinCom, 2015b; ICMM, 2015).
- Gold production from the small-scale gold mining industry has increased nearly tenfold since 1989, from 17,234 ounces to almost 1,500,000 ounces in 2014 (Hilson, 2001; MinCom, 2015b).

associated with its operations. This stems largely from the fact that the majority of small-scale miners operate illegally and informally, without the security of a licence. The inclusive, rights-based formalisation of Ghana's ASM sector is therefore a significant, timely and pressing economic and developmental opportunity that must be realised.

2.2 Characteristics of small-scale mining: dynamic, diverse and on a spectrum

A wealth of existing academic work, as well as the fieldwork and consultations with stakeholders during the research, demonstrate the extreme diversity and context-specific nature of ever-changing small-scale mining operations. The ASM sector employs and supports a wide range of people and communities, including families and individuals trying to earn enough to survive, young students funding their school and university education, farmers supplementing their income, and larger groups of men, women, and sometimes, children. Miners undertake diverse roles, from general labouring to skilled machine work, supervising and bookkeeping, and their livelihoods and backgrounds are dynamic and diverse (Gilman, 1999; Hinton, 2005; Fisher, 2007; Hilson, 2010; Maconachie, 2011; Hilson and Hilson, 2015). Operations are concentrated mainly across the west of the country (Figure 1).

An established body of literature, and discussions over the course of the research with miners and representatives from the Ministry of Food and Agriculture (MOFA), demonstrate the importance of mining to rural farm livelihoods and mutually beneficial cycles of production (Maconachie and Binns, 2007; Hilson, 2011b; Hilson and Van Bockstael, 2011; Hilson *et al.*, 2013). Artisanal and small-scale mining activities are often intertwined with – and may even entirely support – farming activities in virtuous seasonal cycles, with the higher returns from mining invested in farm inputs such as seeds, fertiliser and equipment. This intertwining and mutual benefit is particularly pronounced in areas with high seasonal variations in rainfall, when periods of too little or too much water to mine coincide with harvests and periods of intense work on the farm. In addition, those who mine their own land now may be more inclined to reclaim and protect it for future agricultural use – using the higher returns from mining activities to learn business skills and earn capital to invest in upgrading, thus, being potential agents of change for the formalisation of future best practice ASM. As Figure 2 illustrates, the dialogue may consider ways in which to move ASM and agricultural activities from a declining spiral of competing land uses, degradation of assets and decreasing production to a virtuous circle of investment and mutually beneficial livelihood activities.

Figure 1: Land use in Ghana: large-scale and small-scale mining

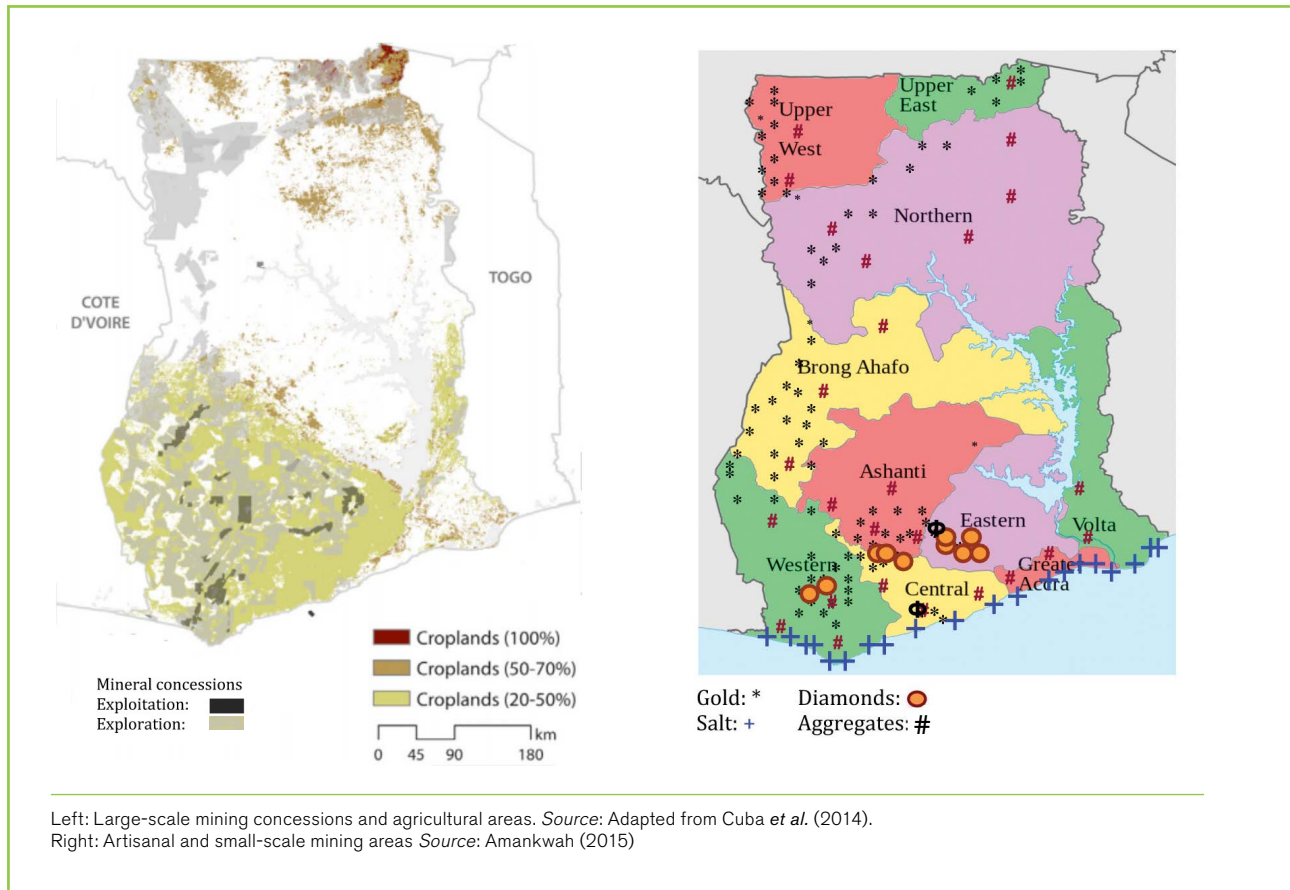
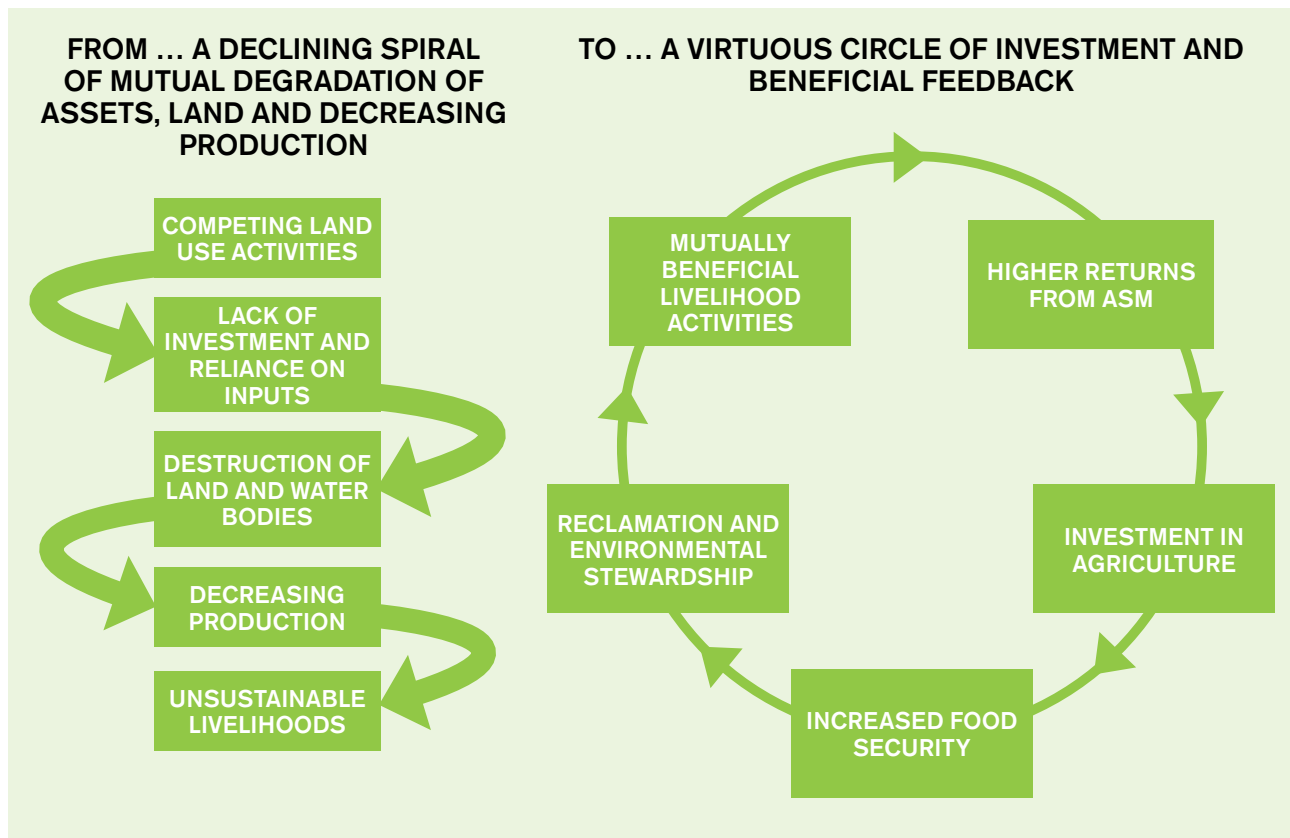


Figure 2. From declining spirals to virtuous circles: ASM and agriculture



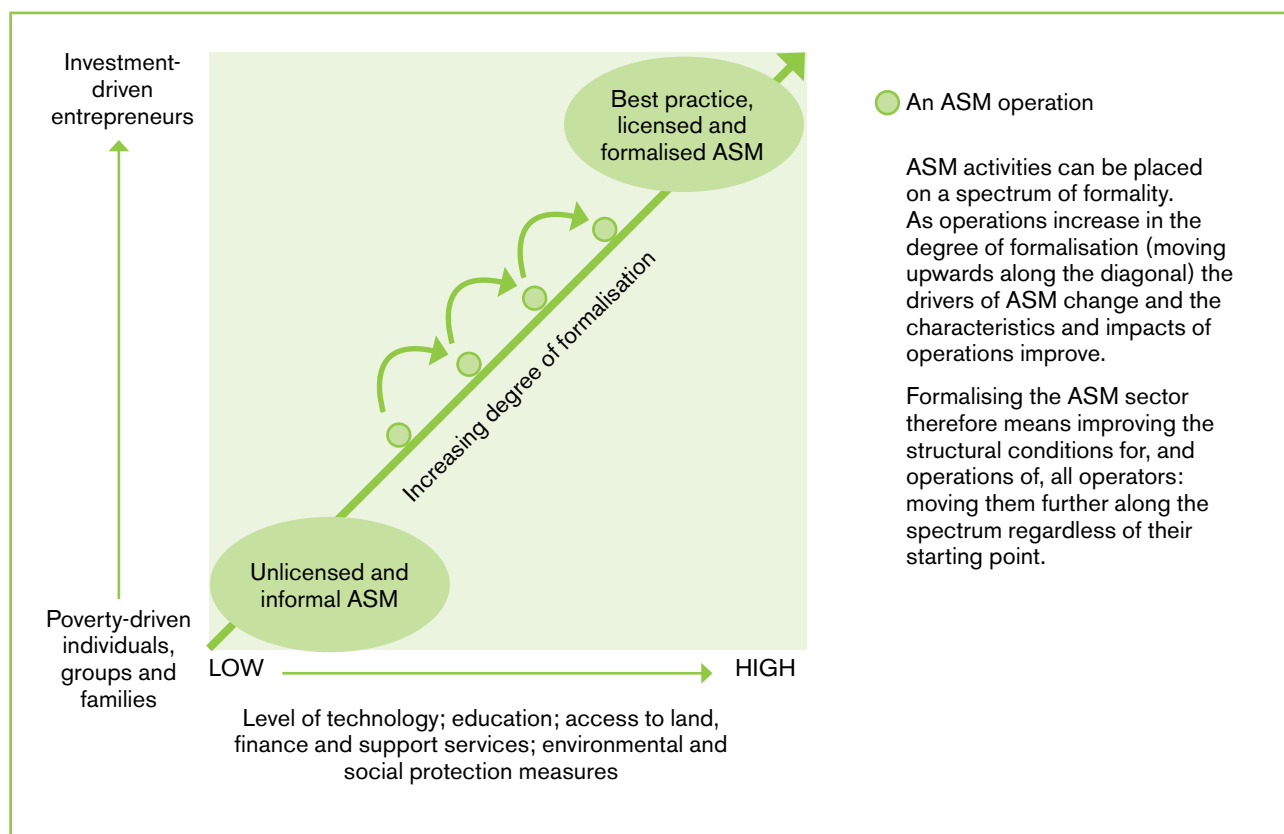
There was a common perception among some of the stakeholders interviewed that unlicensed and informal artisanal and small-scale mining (referred to as *galamsey*; see Box 1) is solely associated with criminality and negative social and environmental impacts. The range of different operations found in Ghana and elsewhere, however, are found at different places along what is referred to here as a 'spectrum of formality' (Figure 3), each a reflection of a varying 'degree of illegality' (Weng, 2015). This spectrum ranges from the most rudimentary 'dig and wash' operations with low levels of technology and production, poor working conditions and more pronounced negative social and environmental impacts, to relatively high degrees of mechanised setups, with excavators used to dig in strips and enable backfilling, milling and crushing machines, better recovery rates, more formalised working and organisational structures, and full environmental impact assessments.

As Figure 3 illustrates, the degree of formalisation also relates to the extent to which activities are driven by poverty and/or entrepreneurship. Though the majority of artisanal and small-scale miners are impoverished, there is also a burgeoning number of highly educated and well-connected 'necessity-driven' and 'opportunistic entrepreneurs' who, due to their unique position and access to significant capital investment, are able

to navigate the often complex socio-political and bureaucratic landscape needed to obtain a licence (Hilson and Hilson, 2015). These tend to be the concession owners, and in the process of formalisation it is important that they are also supported to take more responsibility for the welfare of their employees, mitigate the adverse impact of their operations on the environment, and ensure that they adhere to the laws and regulations. Formalising the sector in Ghana therefore means improving the structural conditions for, and operations of, *all* artisanal and small-scale miners: moving them further along the spectrum of informality and increasing their degree of formalisation regardless of where they are found (see Box 1 for definitions of the terms 'formalisation' and 'legalisation' in the context of ASM and for the purposes of this paper and the dialogue).

Although there is more than 20 years of academic literature exploring the poverty-driven characterisation of ASM operations, as well as the recent emergence of necessity-driven entrepreneurs (Barry, 1996; ILO, 1999; Hilson and Potter, 2005; Hilson and McQuilken, 2014; Hilson and Hilson, 2015), a number of stakeholders interviewed offered an alternative perspective. They suggested that while the labourers at unlicensed and informal mine sites may indeed be impoverished and poverty-driven, the land and mine site owner(s) have the

Figure 3. Spectrum of ASM formality



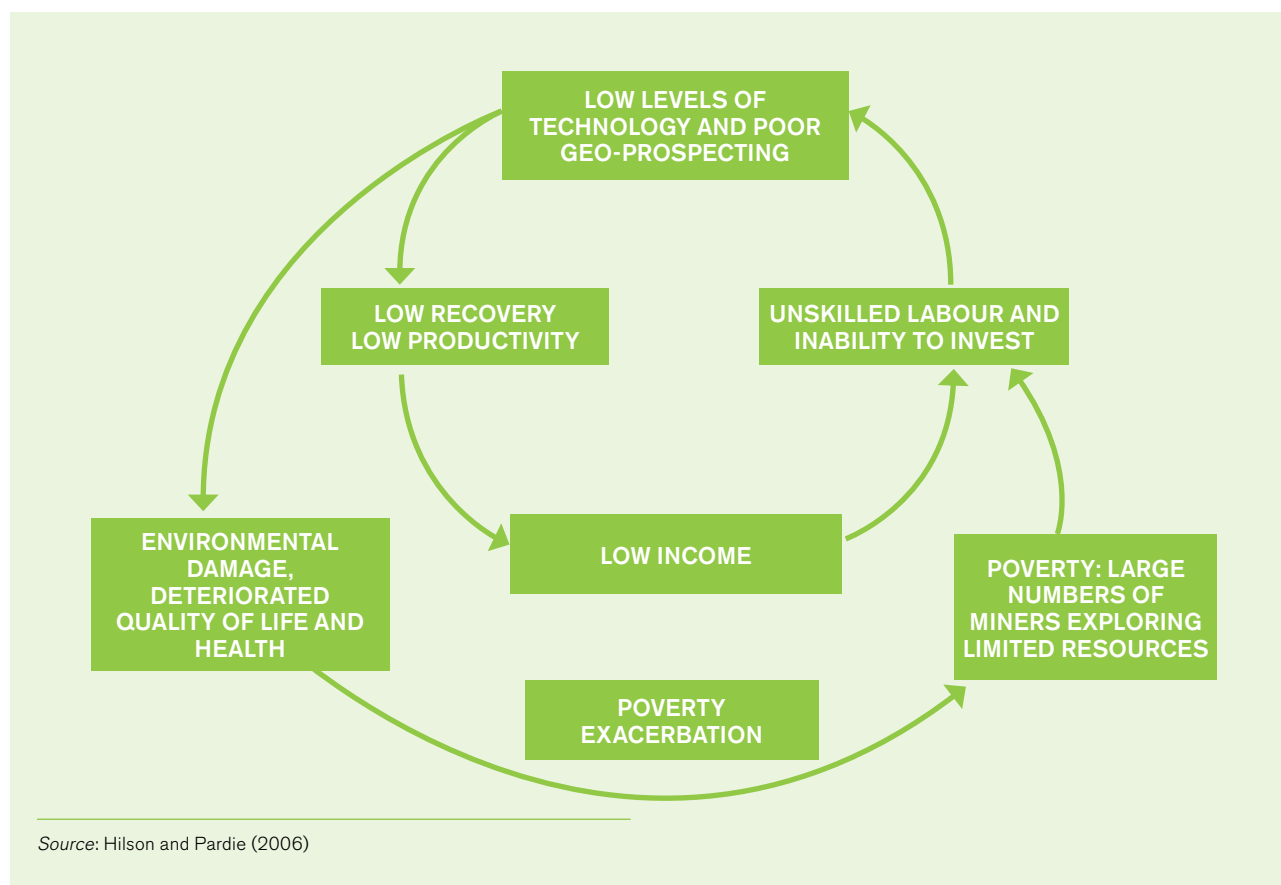
necessary capital and resources to acquire a licence and requisite permits. On the surface this may appear to be the case, certainly for a number of well-connected and resourced *galamsey* operations; however, on closer inspection the research suggests even some licensed small-scale miners with higher levels of resources may be caught in a cycle of spiralling debt and relative poverty. The high start-up capital required for operations and lack of access to formal financial products mean that many small-scale miners secure informal loans and enter asymmetrical agreements with stringent conditions. Furthermore, due to the lack of availability of land with high-quality ore bodies and accompanying geo-data to determine the potential financial returns, they may find it difficult to return investments and turn a profit.

Hilson and Pardie's (2006) 'poverty trap' (a revised version of Nöestaller's (1994) diagram) shown in Figure 4 goes some way to explaining this dynamic: low levels of technology and poor geo-prospecting lead to low recovery and productivity, and thus reduced

revenues and an inability to accumulate funds and return investments to debtors. A lack of capital to improve methods and acquire more efficient equipment traps miners in rudimentary, inefficient mining and processing. Poor quality of life and health as a result of dangerous working conditions and practices exacerbates the poverty cycle further. These factors are compounded by a large number of miners competing for limited land and resources – keeping them trapped in the informal economy and preventing them from accumulating capital and investing to improve their situation.

For the purposes of the dialogue, and regardless of how the drivers of ASM activities in Ghana are conceptualised, the authors maintain that the majority of miners operate informally due to barriers associated with access to land and accompanying geological data, finance and obtaining a licence. These issues will be discussed in greater detail following a brief review of how the largely informal nature of ASM in Ghana has given rise to a host of negative environmental and socio-economic impacts.

Figure 4. Artisanal and small-scale mining poverty-trap



2.3 The negative environmental and socio-economic impacts of ASM are expressions of informality

The largely informal and unlicensed status of artisanal and small-scale miners has given rise to a host of well-documented environmental and social impacts in Ghana that have galvanised stakeholders. These negative 'expressions of informality' (Hilson *et al.* 2013) have also been the predominant focus of the Ghanaian media, which often depict the entire ASM sector in an extremely negative and damaging light. The Minerals Commission (MinCom) and the Ghana National Association of Small-Scale Miners (GNASSM) regularly engage with the media and publish press releases countering negative rhetoric. But there remains considerable work to be done to further sensitise media outlets and the public about the realities of ASM and the positive contribution it does and can make to the socio-economic development of the country.

Environmental, health and social issues

Stakeholders cited a number of issues that are also referred to in the Artisanal and Small-Scale Mining (ASM) Framework (MinCom, 2015a) and the ICMM's recent report on the future of mining in Ghana (ICMM, 2015). They include the pollution and destruction of water bodies, the degradation of the environment and arable farmland, as well as the negative health impacts associated with using mercury in gold amalgamation and working in hazardous conditions with little or no safety measures. Furthermore, ASM activities are often associated with numerous social 'ills', in particular infectious diseases in surrounding communities, and patches of unreclaimed landscape in which there are scores of abandoned pits which serve as breeding grounds for malaria-carrying mosquitoes and pose considerable safety risks.

Instances of conflict

The ASM sector is also commonly associated with conflict. This can manifest itself in many forms, from community unrest due to the dispossession of ancestral land and the awarding of extensive concessions to large-scale mining, to localised violence over access to and the control of land, resources and gold (Hilson and Yakovleva, 2007; Okoh, 2014; Crawford and Botchwey, 2016). The most prevalent forms of conflict are between LSM and ASM, as these relationships

are often characterised by long histories of tension and mistrust and failed promises that may be a result of poor communication and inherited corporate social responsibilities (Hilson, 2011a). Most often, conflict surfaces following the encroachment of unlicensed and informal miners on to the concessions of large-scale mining companies. Large-scale mining and exploration companies often follow small-scale miners, using them as 'pathfinders' for new concessions – but then subsequently apply for a licence and end up removing miners from what becomes 'their' land (Luning, 2014). Though there are positive examples of large-scale miners engaging with and ceding land to small-scale miners, and implementing support programmes, these have failed to adequately compensate for the overall shortage of land available for licensing (Teschner, 2013).

Conflict often stems from a lack of access to and availability of geo-prospected land for ASM activities. Tensions may be particularly acute when community engagement, participation and grievance mechanisms are not well-developed or implemented; and when large-scale exploration and mining companies do not mine or relinquish their large and temporally extensive concessions that are not economical for their own purposes, but may be fertile for farming and have sufficient ore grades for ASM activities (Andrew, 2003; Andrew and Hilson, 2003; Banchirigah, 2006). In Ghana, revisions embodied within Minerals and Mining Act, 2006 (Act 703) allow for the transfer of mineral rights, which can help LSM and exploration companies shed uneconomical land for ASM activities. There are also positive examples of 'tributer' systems where LSM companies have both supported miners with equipment and legally allowed them to work on their concessions (Aryee, *et al.*, 2003; Hilson, 2010; Nyame and Grant, 2012). However, despite their good intentions and positive relationships, these initiatives do not address the more fundamental issue of access to land for ASM activities.

Marginalisation of women

It is also important to highlight the particular pressures felt by women in ASM, who are often more disadvantaged than men. Data are scarce and at times non-existent, but the broad consensus is that women constitute 50 per cent of the ASM workforce in sub-Saharan Africa. Ghana is no exception. At sites, women are ever-present, most visibly engaged in work as ore haulers and washers, and as service providers (supplying food, clothing, water and light mine supplies). Where they struggle most significantly and are noticeably absent, however, is with the securing of concessions. In Ghana, as in most African societies, cultural norms and perceptions make it challenging for

women to recruit labour, retain staff and even secure a bank loan, which requires the signature of their husbands or a male relative. With the informal economy being somewhat insulated – in the sense that it is not regularly policed and/or monitored by government authorities, donors and NGOs – efforts to mainstream gender generally fail to reach women engaged in ASM. With chiefs and landlords able to preserve, or (in the most extreme of cases) revert to their traditional practices, women have little chance of ascending to the upper levels of the ASM labour hierarchy in Ghana (Yakovleva, 2007; AMDC, 2015).

Positive impacts of ASM

Despite these impacts and the way in which the media portrays ASM, many local stakeholders interviewed – and a wealth of academic literature on ASM in Ghana – recognise the significant and positive impact of both informal and unlicensed as well as formal and licensed

ASM to community and national development. These include contributions to the building of schools, clinics, houses and local infrastructure, as well as providing a source of regular and relatively well-paid employment, and finance for invigorating farming, associated service industries and local markets. In addition, foreign miners, many of whom are working illegally, often fill gaps in the supply of finance, equipment, technical knowledge, and support on efficient mining and backfilling techniques (Hilson *et al.*, 2014).

Having outlined the many positive impacts of both informal and unlicensed, as well as formal and licensed, ASM activities, and their potential to offer significant economic and development opportunities for Ghana, the paper now examines the policy framework, land tenure system and barriers that act to inhibit and discourage the country's operators from formalising their activities, rather than incentivising them.

Issues and policy framework

The majority of miners operate informally without the security of a licence. For most miners, obtaining a licence is a challenging, bureaucratic and hard-to-navigate process. Developing a more conducive, streamlined, and supportive enabling environment for formalisation is key to unlocking the sector's success.



3.1 Introduction

The literature review and stakeholder consultations identified the most significant issues facing Ghanaian small-scale miners and communities: difficulties accessing equipment and formal finance, and, most importantly, difficulties obtaining a licence. This is not so much due to the actual cost of the licence. It is largely due to a shortage of untitled land for ASM activities and accompanying geological records, without which it is difficult to obtain formal finance to cover the costly and bureaucratic process⁵ of navigating the licensing process, acquiring land and paying compensation to land owners, making informal payments to various actors along the way, and obtaining environmental permits (though the latter is no longer a prerequisite). These factors inhibit and discourage operators from formalising their activities rather than incentivising them. They are briefly outlined below.

3.2 Barriers to formalising ASM activities

On paper, Ghana has one of the most decentralised systems of ASM governance in the world. Tables 1 and 3 outline the main regulations and policy initiatives governing the ASM sector.⁶ Its Minerals Commission has nine district centres (Wa, Bolgatanga, Konongo, Tarkwa, Dunkwa, Asankragua, Oda, Assin Fosu and Bibiani), whose mandate is to support existing and prospective miners (Table 2). This should help to expedite the licensing process. But unlike certain countries such as Tanzania where decision-making for licences can be made at the local government level, district centres in Ghana have no real power. District officers may be able to refuse an application for a licence at an early stage (if, for example, the proposed concession does not meet the minimum requirements set out by law) and liaise with the District Assembly to post the 21-day notice of a new concession; however, they cannot make the decision to award a licence.

The licensing process was detailed by Aryee *et al.* (2003) and has remained relatively unchanged. Certain amendments have been made, such as the requirement to complete an environmental impact assessment with

the Environmental Protection Agency (EPA) before submitting an application, although since early 2016 this is no longer a prerequisite. In addition, the Minerals Commission (with support from international agencies) is developing a mining cadastre system as well as other ASM support initiatives, and has made significant changes to mineral legislation, such as the recently released policy guidance (Tables, 1, 2, 3 and 4). But the overall process of obtaining a licence remains the same. In fact the emergence of informal sector actors with influence, such as chiefs and landowners, has made it even more challenging to complete the many steps in the licensing process (Crawford and Botchwey, 2016).

A small-scale gold mining licence for a concession of 1–5 acres is subject to government review and approval every three years; concessions of 5–25 acres must be renewed every five years. Only Ghanaian nationals aged 18 years or older are eligible to apply for small-scale mining licences. Applicants are required to first submit ten copies of a completed small-scale mining application form. In addition, the site plans of the targeted area must be forwarded to the relevant office from among the nine district centres. These centres are empowered to screen and appraise applications, and the relevant district assembly publishes the plans and notices for a period of 21 days. If there are no objections, the completed forms (compiled by the district officer), are put together along with (until recently) an environmental impact assessment statement from the municipal EPA, and then submitted to the Minerals Commission in Accra for further processing. After the Minerals Commission has received the requisite fees and is satisfied that the documents meet all the requirements, it advises the Minister of Lands and Natural Resources on whether to issue a licence. Once the documents have received the approval and signature of the minister a licence is issued to the applicant.

If there are any issues with the licensing process the applicant may be invited to Accra to meet with the Commission to provide the relevant documentation and resolve the issues. More often than not, according to those interviewed during the research and evidence from other studies (Hilson, 2013; Hilson and Hilson, 2015; Crawford and Botchwey, 2016), the licensing

⁵ While the licensing process for ASM in Ghana should take no more than 90 days, and in some cases does run smoothly, many unlicensed and licensed artisanal and small-scale miners report that the process can take significantly longer – with some reporting anywhere between 1 and 3 years.

⁶ Following the dialogue, in February 2016 the Minerals and Mining Policy of Ghana (Government of Ghana, 2014) was released. This document is intended to guide the sustainable development and management of Ghana's mining sector and has specific objectives regarding ASM, many of which are supported by the findings in this research paper and the dialogue discussions.

processes can take a long time; and prospective miners feel they may have to ‘chase’ their applications in Accra. Furthermore, it is maintained that while an entrepreneur may be able to navigate the licensing process, the majority of poverty-driven miners struggle to do so. Yet, despite the difficulties in obtaining a licence it is also important to recognise that small-scale miners and concession owners must also take responsibility and be willing to formalise. Education regarding ASM policy and legal frameworks is therefore needed to support miners in obtaining a licence and to empower them to understand and meet licensing requirements, and adhere to regulations (McQuilken, 2016). Thus, while the decentralised system may look straightforward on paper, the success of the entire process hinges on the agency of the individual applicant – their drive, capacity, willingness and ability to meet the licensing criteria.

3.3 Land tenure system in Ghana

In Akan-speaking areas of Ghana, the chieftaincy institution wields considerable influence over land transactions. This can prove problematic for ASM because, although Ghana's chiefs are custodians of the land, many operate in a fashion that suggests they *own* it. The artisanal miner and prospective licensee must, therefore, mobilise what often amounts to exorbitant sums of money in order to ‘access’ the land that the chief believes he ‘oversees’ and the ‘land owners’ whom he has empowered. As the central government faces difficulties with capacity, and monitoring and enforcement to fully engage with dealings at the site level, these exploitative transactions often go unreported and unnoticed in the ASM licensing process (Crawford and Botchwey, 2016).

The influence that chiefs wield in Ghana's rural areas over ASM is a direct consequence of their unexpected re-ascension to power. Understanding this in detail helps to explain why their presence can be such a formidable barrier to formalisation. Between gaining independence in 1957 and the onset of structural adjustment in the mid-1980s, Ghana's chieftaincy institution was relatively dormant; the influence the chiefs had enjoyed during the colonial period was markedly reduced by the state's deliberate efforts to disempower them. The emphasis placed on resource

extraction over the past three decades, however, has indirectly *re-empowered* them. Replicating a formula for distribution of natural resource revenue enshrined in Ghana's constitution, up until recently, the Minerals and Mining Act, 2006 (Act 703) provided the blueprint for sharing mine revenues (see Standing and Hilson, 2015). In November 2015, Ghana's parliament passed the Mineral Development Fund Bill (2014) to provide a legal basis for the disbursement of royalties through the Mineral Development Fund (Ankrah, 2015). The royalty is paid to the Large Tax Unit of the Internal Revenue Service, which then dispenses the money into the Consolidated Fund. The royalty is set at the rate prescribed by the Minister of Lands and Natural Resources (formerly 5 per cent of profits for companies that do not have stabilisation agreements). Of this, 80 per cent is retained by the government and used for general budget support. The remaining 20 per cent is dispensed into the Mineral Development Fund (MDF), established by the government in 1993 by an executive fiat and designed to finance projects in communities affected by mining.

Of the 20 per cent dispensed into the MDF, 10 per cent is divided between mining sector agencies including the Ministry of Lands and Natural Resources, Minerals Commission, Geological Survey Department, and various research institutions. The remaining 10 per cent of mine revenue is transferred on a quarterly basis to the Office of the Administrator of Stool Lands (OASL).⁷ The OASL then dispenses the money directly to beneficiaries at the grassroots level, as outlined in Section 267(6) of the Constitution of Ghana: OASL retains 10 per cent of the monies to cover administrative expenses; 25 per cent is provided to the traditional authority for “the maintenance of the stool”; 20 per cent is given to the traditional authority (the chief) himself; and 55 per cent is awarded to the relevant district assembly located within the area of authority of the stool lands.

In total, chiefs ‘handle’ 45 per cent of mine revenues from large-scale mining, the management of which, for the most part, goes unscrutinised. But turning a blind eye to this has also enabled chiefs to immerse themselves in the informal mining economy, in which, as mentioned, they now broker the day-to-day transactions of individual operators. Hilson *et al.* (2014), Hilson and Hilson (2015) and Crawford and Botchwey (2016) provide evidence that chiefs may demand significant

⁷ The OASL is responsible for the collection and disbursement of stool land revenue as mandated by Article 267 of the 1992 Ghana Constitution and Act 481. Stool lands refer to land held in customary ownership by the relevant traditional authority (chiefs). See Mahama and Baffour (2009) for definitions and a detailed explanation of stool land management and ownership.

amounts of money (many thousands of dollars in some instances) to access land, despite not having the legal authority to do so. A number of stakeholders interviewed during the research also supported this claim. With registration already requiring aspiring licensees to make several costly payments, the prospect of having to pay landowners, chiefs and unofficial actors exorbitant sums

of money even before the process can be initiated can be daunting and discouraging. This could explain why so many miners forge agreements with chiefs to share the gold ore as it is being mined, and opt to forgo the licensing process altogether, taking their chances in the informal economy.

Table 1. Regulatory framework for small-scale mining in Ghana

YEAR	LAW OR REGULATION COVERING ASM	DESCRIPTION IN RELATION TO ASM
Mining laws and regulations		
1989	Legalisation of small-scale gold mining	Law passed legalising artisanal and small-scale gold mining: The Small-scale Gold Mining Law 1989 (PNDCL 218) regulates: registration activity, granting of gold-mining licences to individuals, groups and registered cooperatives, licensing of buyers, and the establishment of district centres to support applicants.
1989	Precious Minerals Marketing Corporation Law, 1989 (PNDCL 219)	Changed the Diamond Marketing Corporation into the Precious Minerals Marketing Corporation (PMMC) and authorised it to buy and sell gold.
1993	Minerals Commission Act, 1993 (Act 450)	Established the Minerals Commission (MinCom) as a corporate body and defines its functions and powers.
2006	Minerals and Mining Act, 2006 (Act 703)	Act revising and consolidating mining and mineral law. Empowers the minister, after consulting MinCom, to designate areas for ASM operations. Repeals the Minerals and Mining Act, 1986 (PNDCL 153) and Small Scale Gold Mining Law, 1989 (PNDCL 218) among others and incorporates existing laws and regulations on the sale of mercury and minerals, use of explosives, requirement for environmental permits, etc.
2015	Minerals and Mining Amendment Bill, 2014 (Mineral Development Fund Bill)	Bill amending the Minerals and Mining Act, 2006 (Act 703). First, to enable the Minister of Lands and Natural Resources to prescribe the rate of royalty payments (formerly fixed at five per cent), and second, to enable the confiscation of equipment used in illegal artisanal and small-scale mining operations.
General laws and regulations affecting ASM operations		
1994	Environmental Protection Agency Act, 1994 (Act 490)	Functions of the agency include the issuing of environmental permits, prescribing and ensuring compliance with environmental regulations.
1994	Water Resources Commission Act, 1996 (Act 552) and Water Use Regulations, 2001	Regulation of domestic and commercial water use and where MinCom, in consultation with the EPA, considers the proposed water use to require an environmental management plan.
1999	National Land Policy	Land policy plan that incorporates range of existing land laws and regulations for the first time.

Sources: Hilson (2001); ICMM (2015); Ghana Legal (2015); FAO (2015). Note: only the main regulations and laws governing ASM are given here; for a fuller list, see Boas and Associates (2015).

Stakeholder mapping

Ghana's ASM sector has a diverse range of stakeholders, all of whom can be considered agents of change. To ensure fully effective and participatory sector reform, there is a need to enhance dialogue and collaboration between these actors, reconcile competing perspectives, and remove overlapping roles and functions.



4.1 Stakeholder mapping and analysis

Earlier, the main barriers to formalisation were identified as a lack of access to geologically prospected land and to finance, and the bureaucratic

licensing process. This section now moves on to map the roles of key national stakeholders against their role and importance as agents for change in the dialogue and ASM formalisation process. After describing the varying perspectives on ASM issues, the section analyses and maps power and participation in the formulation of policy for, and debate around, the sector.

Table 2. National level stakeholder roles, and how they relate to ASM formalisation

STAKEHOLDER	ROLE, MISSION, AND VISION	IMPORTANCE AS AN AGENT OF CHANGE FOR FORMALISING ASM AND THE DIALOGUE
Government agencies		
Minerals Commission	<p>Main promotional and regulatory body for the mining sector in Ghana. Responsible for regulating and managing mineral resources, and coordinating and implementing mining-related policies.</p> <p>Operates nine district ASM offices whose function is to support current and prospective small-scale miners in their operations and process licences by:</p> <ul style="list-style-type: none"> Compiling a register Supervising and monitoring the operations and activities Advising and providing training facilities and assistance necessary for effective and efficient operations Submitting regular reports and information on ASM to MinCom Facilitating the formation of small-scale miners associations. 	<p>Power to designate areas for ASM and transfer mineral rights:</p> <p>“Where the Minister, after consultation with the Commission considers that it is in the public interest to encourage small scale mining in an area, the Minister may by notice in the Gazette, designate that area for small scale mining operations and specify the mineral to be mined” (Minerals and Mining Act, 2006, Section 89, Act 703).</p> <p>“A licence granted under section 82 (1) may be transferred only to a citizen and with the consent of the Minister” (Minerals and Mining Act, 2006, Section 88, Act 703).</p>
Geological Survey Department	<p>Principal curator of national geoscientific data. Tasked with generating, collecting, storing and archiving relevant geoscientific data and disseminating it in a user-friendly way to the government, industry and public.</p> <p>Responsible for advising the nation to make informed decisions on geoscientific issues concerning mineral and groundwater resources, environmental geohazards and land-use planning.</p>	<p>One function of the Geological Survey Department is “improved geology for small-scale miners” (GSD, 2015). However, the department requires funding and needs to be better involved in ASM policymaking and dialogue in order to fully realise this function.</p> <p>Improved geology for small-scale miners will help identify land for operators and unlock finance through the provision of bankable documents.</p>

STAKEHOLDER	ROLE, MISSION, AND VISION	IMPORTANCE AS AN AGENT OF CHANGE FOR FORMALISING ASM AND THE DIALOGUE
Ghana Revenue Authority	<p>Established in 2009 by merging three pre-existing revenue agencies into a single authority for tax and customs duties administration.</p> <p>Mission: To mobilise revenue for national development in a transparent, fair, effective and efficient manner.</p>	<p>Key objectives include providing: “an holistic approach to tax and customs administration” and “common tax procedures that enable tax payers to be governed by a single set of rules” as well as its function to “pay the amounts collected into the Consolidated Fund” (GRA, 2015). Meeting these objectives would benefit small-scale miners by reducing the administrative burden and potentially unlocking and managing sources of funding for ASM-related formalisation activities.</p>
Environmental Protection Agency	<p>Public body for protecting and improving the environment in Ghana.</p> <p>Mission: “To co-manage, protect and enhance the environment as well as seek common solutions to global environmental problems. To be achieved inter alia through research, scientific, technological and innovative approaches, good governance and partnerships” (EPA, 2015).</p>	<p>Undertakes environmental impact assessments (EIA) for operations, and awards environmental permits to small-scale miners.</p> <p>Enhanced geo-data of land for ASM may make it easier to undertake and improve the quality and accuracy of ASM EIAs.</p>
Precious Minerals Marketing Company Limited (PMMC)	<p>The authorised business of PMMC is to:</p> <ul style="list-style-type: none"> Grade, assay, value and process precious minerals Buy and sell precious minerals Appoint licensed buyers for the purchase of precious minerals produced by small-scale miners Promote the development of precious minerals and the jewellery industry Export gold on behalf of third parties for a commission. 	<p>Carries out marketing for the small-scale mining sector and is involved in ASM gold exports. Works with other agencies to identify and manage financing of ASM formalisation activities.</p>
Forestry Commission	<p>Responsible for regulating the use of forest and wildlife resources, conserving and managing those resources, and coordinating related policies.</p>	<p>Works with other agencies to identify land for ASM, ensure harvesting of high-value ‘economic trees’ prior to mining, and land reclamation and reforestation after mining.</p>

STAKEHOLDER	ROLE, MISSION, AND VISION	IMPORTANCE AS AN AGENT OF CHANGE FOR FORMALISING ASM AND THE DIALOGUE
Lands Commission	<p>Manages public lands and any other lands vested in the president by the constitution or by any other law, and any lands vested in the Commission. Functions include:</p> <p>Advising government, agencies and local and traditional authorities on land-use planning and national land and development policy</p> <p>Registration and titling of land throughout the country</p> <p>Providing surveying, mapping and research services where necessary</p> <p>Licensing cadastral survey practitioners</p> <p>Imposing and collecting levies, fees and charges for services rendered.</p>	<p>Essential for land-use planning, identifying and managing concessions for ASM activities.</p>
Ministry of Local Government and Rural Development	<p>Mission: "To promote the establishment and development of a vibrant and well-resourced decentralised system of local government for the people of Ghana to ensure good governance and balanced rural-based development" (MLGRD, 2015).</p> <p>Formulating, implementing, monitoring and coordinating reforming policies and programmes to democratise governance and decentralise government.</p>	<p>A decentralised system of governance will help increase the participation of small-scale miners in dialogue and policy formation; and in identifying land for and supporting ASM activities at the local level.</p>
Ministry of Employment and Labour Relations	<p>Mission: To formulate policies and strategies, and initiate programmes to enhance employment generation and ensure the protection of the rights of workers, as well as conduct research into topical labour issues that underpin national development planning.</p>	<p>Important traditionally non-ASM stakeholder whose mission and activities crosscut ASM issues and development potential.</p>
Ministry of Gender, Children and Social Protection	<p>Goal: To promote an integrated society that offers equal opportunity for both men and women and safeguards the rights of children; and to empower the vulnerable, excluded, the aged and persons with disabilities by social protection interventions to contribute to national development.</p>	<p>Important traditionally non-ASM stakeholder whose mission and activities crosscut ASM issues and development potential.</p>
Ministry of Food and Agriculture	<p>Mission: To promote sustainable agriculture and thriving agribusiness through research and technology development, effective extension and other support services to farmers, processors and traders for improved livelihoods.</p>	<p>There are both destructive and positive linkages between ASM and agricultural activities. The MOFA could work in collaboration with other government departments and agencies (e.g. MinCom) to implement joint initiatives that support the development and formalisation of the intertwined livelihoods of mining and farming.</p>

STAKEHOLDER	ROLE, MISSION, AND VISION	IMPORTANCE AS AN AGENT OF CHANGE FOR FORMALISING ASM AND THE DIALOGUE
Water Resources Commission of Ghana	<p>To regulate and manage Ghana's water resources and coordinate related government policies.</p> <p>Provides a forum for integrating and collaborating with different interests, and is composed of 15 major government and non-government stakeholders involved in the water sector.</p>	The role and responsibility of the commission crosscuts the ASM sector and is composed of many government agencies that work directly or indirectly on ASM issues.
Civil Society and research institutions		
Ghana National Association of Small-Scale Miners	Mission: To bring licensed ASM and ASM associations under one umbrella with one common goal; to represent and support members in adhering to MinCom and EPA rules and regulations at the local level; to engage with the government and to advocate on behalf of ASM.	Meets quarterly with MinCom in Accra and at district offices to discuss issues. However there is potential to increase their participation and consultation with both the commission and other government agencies to ensure more effective ASM policy.
NGOs and research institutes (e.g. FON, Solidaridad and UMaT)	Mission: To advocate on behalf of ASM, undertake research and implement projects and programmes that support the development and formalisation of ASM.	<p>May advocate on behalf of and represent ASM as well as being involved in multiple research and development projects with ASM.</p> <p>Includes: University of Mines and Technology (UMaT), Association of Small-Scale Mining Africa Network, African Centre for Economic Transformation, Solidaridad, Friends of the Nation Ghana.</p>
Others		
Gold Fields (large-scale mining)	<p>Mission: "To create the greatest enduring value from gold mining for all of our stakeholders, including our employees, our communities, our shareholders and our host governments.</p> <p>To enhance the environments in which we operate, and limit the impact that mining can cause.</p> <p>Committed to creating 'shared value' for all our stakeholders. This is our legacy and we measure ourselves against this" (Gold Fields, 2015)</p>	Given the prevalence of unlicensed miners encroaching on LSM concessions and the existence of partnerships and tributary agreements between LSM and ASM, large-scale mining companies are inherently part of the dialogue, solution and ways forward for the formalisation of ASM.
International development organisations	Mission: To fund and implement projects and programmes in support of national development.	Past and present involvement in a range of extractive industries and ASM-related projects in Ghana. See Table 4.

Sources: MinCom (2015c); Aryee *et al.* (2003); GSD (2015); GRA (2015); EPA (2015); PMMC (2015); Forestry Commission (2015); Lands Commission (2015); MLGRD (2015); MELR (2014); MOGCSP (2014); MOFA (2015); WRC (2015); Gold Fields (2015).

Note: Here the stakeholder mapping identifies all stakeholders as 'agents for change'. However there are likely to be significant constraints and barriers that the post-dialogue Learning and Leadership Group (see section 5.1) will need to identify and navigate in the process of full participatory sector reform.

4.2 Perspectives on ASM

Distinction between ASM and *galamsey*

Many, if not all, national and local stakeholders make a distinction between artisanal and small-scale mining (licensed, formalised operations), and *galamsey* (unlicensed, informal operations) – see Box 1 for definitions of key terms. Overall, ASM is encouraged and widely viewed in a positive light – providing direct and indirect economic benefits, a source of employment and positive community development outcomes. These views are supported at the local level by reports that formal miners, and to some extent informal miners, have contributed to building school classrooms, health clinics, repairing roads and other community development projects through partnerships with, and requests from, the municipal assembly, assembly members and local chiefs. Similarly, some local stakeholders suggested that formal (and informal) ASM had contributed to more community development and infrastructure than either the local government or large-scale mining exploration and operations.

Informal mining often blamed for negative environmental impacts

Perceptions of *galamsey* or informal mining as a whole are less straightforward. While many national and local stakeholders acknowledge its importance for direct employment, wealth creation and invigorating downstream industries and activities, informal mining is widely associated with – and singled out for – environmental destruction, the pollution of water bodies, lack of reclamation, associated negative health impacts, detrimental social vices, and for drawing school-age children away from formal education.

Generally, the stakeholders who maintain these views are at the national level, not directly connected to the Ministry of Lands and Resources, or at the local level and less connected with communities. Mining-related government departments, informal miners, assembly members and some municipal representatives have a more nuanced understanding. They point to more fundamental issues and barriers that preclude the majority of informal miners from becoming formalised (the bureaucratic and time-consuming licensing process, lack of access to and availability of land with proven geological deposits, and high cost of securing a licence, and fees).

Perspectives on ASM influence policy

Policy efforts at both the national and local level largely focus on curtailing informal mining and the symptoms of informality. Despite current government efforts to re-categorise ASM licences, the space and policy framework for the minerals sector in Ghana largely prioritises the development of large-scale mining. National and local efforts to formalise the ASM sector have varied over the past two decades. They range from the legalisation of small-scale mining in 1989 to ongoing technical support, sensitisation and education initiatives, and recently the development of an online mining cadastre system (Tables 3 and 4). However, perhaps most significant, due to the high profile and media attention it has garnered, is the Inter-Ministerial Task Force on Illegal Mining, which focuses on conducting sweeps of unlicensed and informal mining operations to arrest and deport illegally operating foreign miners, clamp down on *galamsey* operators, and seize equipment. The taskforce is a partnership between metropolitan, municipal and district assemblies, regional security councils and district security councils.

The quantity of resources being pledged to eradicate informal mining, along with the host of community-engagement interventions being sponsored suggests that Ghana has the political will at both the national and local levels to address ASM issues comprehensively. Yet these efforts could be directed towards supporting ASM activities to meet the requisite laws and standards; build on the previous good work of government initiatives (Tables 3 and 4); and assist miners with accessing land and finance and acquiring concessions and licences. In short, policy should move from being reactive to proactive, supporting miners operating at all points on the spectrum (Figure 3) to progressively formalise their activities. There is therefore a significant gap, for which the municipal assembly could be an entry point, to lead a municipal-wide action plan focused on support services. While the basic resources currently being used for 'task forces' could be diverted to such a support programme, considerable work is needed in order to change the perspective on informal mining, and, crucially, the dialogue and understanding of what drives informality at the local level.

Table 3. Key small-scale mining policy initiatives

YEAR	INITIATIVE	DESCRIPTION
1989	Legalisation of small-scale gold mining	Small-scale Gold Mining Law 1989 (PNDCL 218) passed, legalising small-scale gold mining.
2005	Promotion of sustainable small-scale gold mining operations	Identifies three areas in Western Region and Winneba in Central Region for small-scale mining operations.
2006	District support centres	Establishes district offices to support miners in applying for licences and process applications before sending to Accra for ministerial approval.
2012	Procurement of equipment	Provides support with working capital and purchasing of equipment.
2014	Inter-Ministerial Task Force on Illegal Mining	A presidential directive established an inter-ministerial task force to seize equipment and arrest and prosecute unlicensed small-scale miners and non-Ghanaians involved in operations.
2016	Minerals and Mining Policy of Ghana	A broad policy document to guide the government in the management of minerals and mining with explicit objectives relating to the artisanal and small-scale mining sector.

Source: Hilson (2001); Government of Ghana (2014); ICMM (2015); Minerals and Mining Act, 2006 (Act 703).

4.3 Power and participation in decision making

Local assemblies

Elected assembly members are involved in decision making through the municipal assembly and mining subcommittees, which report to the executive committee. They are the first point of contact for many and are well-informed of local issues, given their close contact with the communities. Though decisions are made democratically, it is ultimately the municipal chief executive who presides over decision making for municipal-wide strategies, programmes and projects. The Minerals Commission plays a technical rather than political role at the local level, along with the municipal departments – it can advise the municipality at various entry points but does not vote on decisions. This is because the district officers in the district offices of MinCom are not elected members of the District Assembly. Their role is therefore to support current and prospective small-scale miners within their district with

their operations and the processing of licences (Table 2) in collaboration with the District Assembly.

The Ghana National Association of Small-Scale Miners (GNASSM)

The Ghana National Association of Small-Scale Miners represents the voice and views of small-scale miners at both the national and local level, though women are under-represented. GNASSM has close links with the Minerals Commission and holds quarterly meetings in their offices. However, while membership fees are minimal and open to all licensed artisanal and small-scale miners, the research suggests that at the local level it is the more successful small-scale miners that have the loudest voice and the greatest participation in the association. This asymmetry in power structures could be addressed through capacity development at GNASSM to further professionalise their membership base, and improve the existing decentralised structure and communication mechanisms from the national to local level. Furthermore, though the association holds quarterly meetings with MinCom at the national level, it often appears sidelined from national decision making

with other government agencies that are not under MinCom's remit – a case in point being the recent (2015) increase in the EPA licence fee.⁸ Again, further building the capacity, and therefore the legitimacy, of GNASSM in the eyes of all government agencies could help to ensure that small-scale miners and their representatives are more involved in policy debate and decision making; this in turn would enable policies to reflect local realities.

The dialogue is therefore an opportunity to forge further professional relationships between GNASSM and MinCom and give a more effective voice to miners in forming policy. It is also worth noting that because miners must be licensed in order to become an association member, there are no formalised structures to represent the interests, concerns or issues of informal and unlicensed miners and ASM communities.

Need for better consultation in local decision-making processes

Although assembly members are from local communities and may be involved in mining themselves, as a whole, the voice of ASM groups and unlicensed and informal small-scale miners is absent from decision-making processes. While it would be difficult for the Minerals Commission and government to be seen engaging directly with unlicensed miners, by establishing alternative grievance mechanisms it may be possible to better include these stakeholders in decision making and better support them through the licensing process. Indeed, miners and their representatives were often absent from a number of municipal sub-committees (such as health and social services) where their involvement could have been highly beneficial for all stakeholders. Chiefs are not involved in decision making either. While under Ghana's constitution chiefs have no political power (and this paper is not advocating that they should), or rights to minerals below ground – which are all vested in the state – a number of stakeholders raised the concern that chiefs were not consulted on new concessions. They reported that the 21-day notice of a new concession was not always sufficient, and sometimes was not posted at all; and suggested that involving chiefs at a very early stage when identifying new concessions might reduce conflicts later on over land ownership, pre-existing land-use activities, destruction of unmarked sacred sites, compensation, and so on. Thus, finding mechanisms to engage and consult with *all* of the different types of local stakeholders and actors could help to create more effective policy that is better connected to the realities on the ground and ASM communities as a whole.

The Geological Survey Department: largely absent from national policymaking and lacking funds

The research also identified that the Geological Survey Department, tasked with providing 'improved geology for small-scale miners', is often absent from sector policy dialogues and policymaking. The department also suffers from a lack of funding, which means that land is not being regularly identified for miners. This has a knock-on effect: without proven geological reserves, small-scale miners are unable to access finance from formal lenders, and so turn to more informal alternatives. Further research also found that although local government departments undertake community outreach programmes that crosscut a range of ASM issues, they do not address them directly. In addition, these efforts are not properly linked up to initiatives with other local government units or effectively embedded in district or municipal-wide development plans.

As a result, the development potential and support for ASM at the local level is not being realised and miners continue to be absent from local policy formation and decision making. The same is true at the national level, where, despite the GNASSM's quarterly meetings with MinCom, changes to policy and regulations within government agencies are often undertaken without fully consulting operators. This makes for ineffective high-level policies, and laws that are poorly implemented because they do not reflect the realities on the ground.

Better defined roles and improved collaboration for local government

While some municipal government departments have clearly defined mission and vision statements and the heads of departments are very clear about their role and responsibility in the municipal assembly and municipality as a whole, others are less clear. This was most pronounced in relation to small-scale mining issues, which are largely assumed to be the sole responsibility of the local Minerals Commission district office. For example, despite the Community Development and Health departments undertaking outreach and education programmes that often crosscut ASM-related issues, they do not always collaborate with MinCom. There can also be a disconnect between the Environmental Unit in the municipality and the Environmental Protection Authority located in the district capitals. The environmental units may be left to fulfil the role of the EPA locally, and appear to lack the capacity to address the pervasive environmental issues associated with ASM activities.

⁸ The cost of the environmental permit has now been revised downwards, and having an environmental permit is no longer a requirement to obtain a small-scale mining licence from the Minerals Commission.

There appears to be a need for a municipal-wide ASM strategy, led by the municipal chief executive, which could bring ASM efforts together in the first instance so that all departments can collaborate more effectively on sector-specific projects. Secondly, such an approach could set out a unified mission and vision for the municipality's ASM-related activities, and finally move towards a framework that supports formalisation and offers support services – as opposed to actively trying to curtail informal mining through task forces and policing. Greater collaboration at the municipal level could also improve departments' capacity.

4.4 Examples of partnerships and collaboration

Miners working with local stakeholders for community development

Many operators contribute to community development by financing infrastructure such as schools and clinics in the absence of provision by local government. This also ensures their community licence to operate. These activities are undertaken either formally, in agreement with the municipal assembly, or on a more ad hoc basis with local chiefs and assembly members at the community level. There are therefore positive examples of collaboration and partnerships between miners, municipal assembly and government departments, as well as local communities, which could serve as a platform for future ASM-related development activities. The mining sub-committees may be a good entry point for this.

Collaboration between national and local stakeholders

As noted above, there is considerable collaboration between the security services at the national and local level through the inter-ministerial task force. While it is largely ineffective because it tackles what are described here as the expressions of informality rather than its fundamental systemic drivers, this close collaboration could serve as an important basis for dialogue and help to facilitate the rights-based formalisation of the sector.

4.5 Conflicts

There is a spectrum of conflict ranging from tension caused by overlapping roles and responsibilities, to localised disputes, full-scale violence and even death. There was no evidence of serious conflict between any ASM stakeholders interviewed as part of the research, though it is known to exist. At the municipal level, some tensions were observed between various municipal departments and local government authorities, the result of overlapping roles and responsibilities. Better communication between departments and definition of roles and functions may help ease these tensions and ensure a more collaborative and systemic approach to addressing ASM-related community issues.

Though not a focus of the research, there have been numerous reports of small-scale miners encroaching onto concessions, and reports of companies forcibly evicting individuals. Individual large-scale mining companies have handled ASM in their own unique way. Each employs different strategies to corporate social responsibility, conflict mediation, grievance mechanisms and engagement strategies; and these differing conditions and approaches produce significantly different outcomes (Teschner, 2013). Most of the disputes between LSM and ASM are over land and control of resources.

Some farmers and miners pointed to land-based disputes over the lack of and/or inadequate compensation for the destruction of cocoa farms and water pollution, and competing land-use functions. This happens despite laws and mechanisms designed to calculate and administer compensation for land earmarked for ASM activities under the Mines Compensation and Resettlement Regulations 2012 (LI 2175). While recognising these tensions, several interviewees at the local, municipal and national level – in particular those from the Ministry of Food and Agriculture (MOFA) – were keen to highlight the many positive benefits that could come about from combining agriculture and ASM, and were in broad agreement that in the future, both activities could co-exist and become even more interconnected (Figure 2).

A dialogue to identify land for ASM activities, with the participation of municipal and national government agencies such as MOFA and the Ghana Cocoa Board (COCOBOD), could help to ease these tensions. It could also foster a virtuous cyclical relationship between mining and farming and contribute to formalising ASM.

Existing initiatives, and identifying space for the IIED ASM dialogue

The IIED ASM dialogue could enhance a number of ongoing partner and government ASM initiatives, by creating a more conducive policy space and developing a broader strategy for formalisation. The dialogue should focus on locally driven, implementable solutions, and on engaging stakeholders in closer collaboration.



5.1 Existing efforts

Although it is a standalone initiative, the IIED action dialogue has the potential to build on existing work and initiatives in Ghana, and foster multi-stakeholder collaboration on key locally identified ASM issues. Early engagement with stakeholders, and stakeholder mapping, have identified the 'space' for the IIED dialogue, as well as its potential benefits for existing ASM initiatives (Table 4).

The dialogue draws on research presented in the Ghana ASM Framework (MinCom, 2015a) to supplement the stakeholder mapping and identify ways forward. It is also poised to contribute to and help implement strategies to address the framework's objectives, through a solutions-based, collaborative and proactive discussion. This is particularly true of Objective 1: to "regulate and assist SMMs [small-scale mining and miners] to improve efficiency of their operations" (MinCom, 2015a: 41).

The dialogue should therefore catalyse a more conducive policy and institutional space for ASM initiatives, and assist with putting the high-level objectives of the framework into practice. This facilitative role played by the dialogue also applies to other initiatives such as the support from the Australian High Commission to develop an online mineral licensing and processing service, and the support from various partners in developing the National Action Plan (NAP) on mercury as part of the United Nations Minamata Convention on Mercury.

While the online or 'e-licensing' platform and a mining cadastre will go a long way towards reducing the costs and bureaucracy associated with securing a licence, the initiative will be less effective in driving formalisation efforts, unless it also: 1) addresses wider institutional barriers; 2) ensures land is made

specifically available for ASM; and 3) ensures that all miners have the capacity to utilise and access these systems. Furthermore, the increased collaboration, partnerships and understanding of ASM dynamics generated through the dialogue, associated field visits and implementation of the Learning and Leadership Group⁹ in the post-dialogue phase will have a number of benefits. It will help to develop the National Action Plan (NAP); assist in linking the University of Mines and Technology (UMaT) with engaged partners; ensure that the debates surrounding the re-categorisation of licences take into account the realities of ASM on the ground; and establish a more conducive environment for organisations that focus on improving transparency and traceability of ASM through certification.

The review of existing initiatives and stakeholder mapping above also serves to highlight the importance of not just "talk, talk, talk".¹⁰ The research found that many stakeholders have become jaded by previous dialogues, workshops, conferences and meetings where time is spent talking around ASM issues *ad infinitum* with little, if any, apparent subsequent action. The IIED dialogue should therefore focus on implementable solutions, engaging stakeholders to increase collaboration, and establishing a post-dialogue committee of local actors to take initiatives forward.

The space for the IIED dialogue is therefore clearly defined, not only in relation to previous dialogues and facilitating existing ASM initiatives, but also in identifying and taking forward locally driven solutions that have so far been overlooked and not addressed. In doing so the dialogue will achieve long-term change, paving the way for ongoing multi-stakeholder discussions and collaboration on ASM issues, and thus directly contribute to the rights-based formalisation of the sector in Ghana.

⁹ The multi-stakeholder Learning and Leadership Group was endorsed by participants at the dialogue workshop as a strong mechanism for identifying next steps, ongoing learning and both collaborative and individual leadership on change.

¹⁰ Quoted from a conversation with an ASM stakeholder at the 'Inception Workshop for the ratification and early implementation of the Minamata Convention on Mercury Project, in the Republic of Ghana' in Accra, October 2015.

Table 4. Overview of ongoing ASM initiatives in Ghana

YEAR	INITIATIVE	PARTNERS	OVERVIEW
2008– Present	Natural Resources and Environmental Governance Framework	World Bank (International Development Association) and development partners Ministry of Lands and Natural Resources	Technical and budgetary support to improve natural resource and environmental governance through policy and institutional reforms and capacity building (World Bank, 2015). Multi-stakeholder workshops with over 1,000 participants in eight ASM office field locations. Developed Ghana ASM Framework identifying key issues and outlining a 1 to 10-year development plan for ASM (MinCom, 2015a).
2011 - ongoing	Certification efforts for ASGM in West Africa	Alliance for Responsible Mining Fairtrade International Solidaridad	Range of initiatives linking Western jewellers and consumers directly to ASGM cooperatives to certify the origin of minerals and minimum standards of production, and improve traceability and transparency of supply chains (Hilson, 2014; McQuilken, 2016).
2013	National Action Plan (NAP) on ASGM in accordance with Annex C of Minamata Convention on Mercury	United Nations Environment Programme United Nations Institute for Training and Research European Union Environmental Protection Agency Friends of the Nation Ghana	In the process of ratifying the Minamata Convention on Mercury to reduce, and where feasible, eliminate the use of mercury. Multi-stakeholder dialogues and workshops to sensitise and collect inputs to develop a national action plan – formalisation of ASGM, management of mercury use and trade, public health strategies (UNEP, 2013).
2015	Training Programme for Artisanal and Small-Scale Miners	University of Mines and Technology Ghana National Association of Small-Scale Miners	Memorandum of Understanding for UMaT to train GNASSM members in various technical, management and health and safety aspects of ASM. Three-tiered programme (low, medium, high) with associated training manuals to equip miners with skills and promote best practice (UMaT, 2015).
2015	Re-categorisation of Mining Licences	Ministry of Lands and Natural Resources (MinCom)	Reviewing the categorisation of ASM mining licences to account for changes in characteristics and enable foreign investment. The measures aim to reduce illegal foreign mining and increase the ASM tax and revenue base (MinCom, 2015a).
2015–2017	Computerised Licence and Administration System Project	Australian High Commission Ministry of Lands and Natural Resources (MinCom) Revenue Development Foundation (NGO experienced in revenue raising).	Technical assistance to improve the effectiveness, accountability and compliance of the management of mineral rights, mining licences and royalties. Support MinCom to develop a computerised administration system for the processing, management and monitoring of mineral rights and licences. Aims to help increase investor confidence and improve mining investment (Australian High Commission, 2015).

Potential ways forward

Earmarking geologically prospected land for artisanal and small-scale miners is the fundamental building block for formalisation. Based on research findings, this paper recommends three foci for the formalisation dialogue: 1) geological prospecting and land allocation; 2) access to finance; and 3) streamlined licensing.



6.1 Introduction

A shortlist follows of potential 'ways forward' to be discussed at the dialogue. The dialogue should refine one actionable issue that the Learning and Leadership Group, which was established during the dialogue process,¹¹ can take forward and implement. The shortlist is based on this paper's in-depth review of ASM in Ghana, stakeholder analysis, existing initiatives, and the criteria provided by IIED (2015).¹²

6.2 Formalisation begins with access to land and geological data

If the current resources used to address the negative 'expressions' of informal mining could be used instead to address barriers to formalisation, Ghana's ASM sector could be supported and incentivised to formalise itself. Aside from generating additional revenues, bringing operations into the legal domain would enable the government of Ghana to regulate ASM activities effectively, minimise negative environmental and social impacts, and potentially propel the sector onto a more sustainable development trajectory. The very simplified diagram in Figure 5 outlines the key steps and process for the formalisation of ASM in Ghana. A key part of this process would be to educate all stakeholders on the existing policy and legal frameworks, and empower miners to meet the requisite licensing criteria.

The research identified that land is *the* fundamental building block for formalisation. With geologically prospected land earmarked solely for ASM operations, miners will have the necessary bankable documents to access formal finance and enter into formal partnerships, investments and agreements with one another as well as financial institutions. This legal status and access to land will enable and incentivise licence purchasing, provided the process can be further decentralised and streamlined. Once licensed, the government and development partners know exactly where miners are operating. Moreover, it is argued that once legally recognised, miners will be able to access support and education services (provided by government, development organisations and the private sector) to improve the efficiency and mitigate the negative impact of their operations. This, in turn, will enable licensed miners to pay for additional support services (such as geological prospecting, business development, equipment leasing, technical support and best practice mine methods) to further formalise their activities and mitigate adverse environmental and social impacts. In time, the continued formalisation of operations and introduction of and rising demand for efficient best practice technology will stimulate the private sector and should result in fully formalised, investment-driven, best practice ASM with mutually beneficial links to other livelihood activities such as agriculture.

Figure 5. Key steps to the formalisation of ASM



¹¹ The Learning and Leadership Group is comprised of eight key ASM stakeholders and is tasked with driving forward the 'Roadmap for Change' that was finalised as a result of the dialogue.

¹² Note: The criteria are not all mutually compatible – the next step in a 'critical path' is not necessarily the most 'tractable' one.

6.3 Empower women, and increase mining associations' participation

All of the ways forward discussed at the dialogue and the post-dialogue roadmap for change must incorporate strategies to empower women in ASM and increase the participation of all small-scale miners and their associations in policymaking. Though GNASSM and other ASM associations regularly engage with the Minerals Commission through quarterly meetings, miners are largely marginalised from debate and policy formation, both at national and local level, and with and between different government agencies. This is especially true for non-mining government institutions and agencies whose work is influenced by the ASM sector, such as MOFA, COCOBOD and the Water Resources Commission. Furthermore, there is little representation of women in GNASSM and few, if any, gender-specific policies targeting the needs of and inequalities faced by women in ASM. This lack of participation and disconnect from the experiences of miners and communities at the grassroots level has resulted in ineffective and reactive policy that focuses on the negative 'expressions' of informality, rather than addressing its drivers. Miners, and the needs of women in ASM, must be embedded in the dialogue and at the heart of policy making.

6.4 'Ways forward' for discussion at the dialogue

The following three solutions (or a combination of them) are proposed for formalising ASM and as a basis for the dialogue, with the caveat that each should build on and further enhance existing initiatives, and include the empowerment of women and better participation of artisanal and small-scale miners in decision making and policy formation.

1. Geological prospecting and land allocation

The dialogue should identify and unlock a sustainable source of funding (potentially through a minimal 'Robin Hood tax' on gold exports, earmarking part of the Mineral Development Fund, or other external finance) to identify land for ASM activities and carry out geo-prospecting by the Geological Survey Department. With access to land and geo-data, further dialogue must ensure that miners fully participate in the transparent and accountable management of awarding concessions for ASM operations.

2. Access to finance

The dialogue should identify sources of finance for undertaking geological prospecting, to understand what lessons can be learnt from past finance initiatives, and identify what else is needed alongside bankable documents to unlock formal sources of finance and microfinance from institutions. With access to sustainable formal finance upfront, miners are able and incentivised (due to their legal standing) to formalise their activities, and can subsequently re-invest in support services to improve the efficiency, sustainability and developmental impact of their operations.

3. Streamlined licensing

The dialogue should ensure that government and partner efforts to streamline the licensing system benefits as many artisanal and small-scale miners as possible. This should include: consolidating the application system online through a mining cadastre and e-licensing platform; re-categorising licences to also include a category for medium-scale mining; improving district offices' resources to better support applicants; and other plans detailed in the Artisanal and Small-Scale Mining Framework (MinCom, 2015a). The dialogue could therefore explore how to further support these initiatives and further decentralise the licensing process, so that all miners can benefit from these streamlined services, thus enabling and incentivising even the most impoverished miners to obtain a licence.

Postscript: reflecting on the ASM site visits

Participants in the action dialogue spent the first two days visiting local ASM sites. These field visits improved stakeholders' understanding of the sector's dynamics and challenged their perspectives. The experience also built trust between them, and laid the basis for dialogue and future collaboration to effect change in policy and practice. Overall, the field visits validated this report's findings, and in particular highlighted the extremely marginalised position of women and the specific challenges they face.



7.1 Introduction

As part of the four-day action dialogue on ASM in Ghana, participants spent the first two days (19th and 20th January 2016) visiting three licensed small-scale mine sites in and around the mining town of Tarkwa, Western Region. Here the paper reflects on the value of these field visits in relation to the dialogue's overarching objectives.

7.2 Improving understanding and challenging perspectives

Improving understanding and challenging perspectives among key ASM sector stakeholders was the main objective of the field visits, and to this end they were crucial. The two days spent exploring site level dynamics brought stakeholders together, broadening their understanding of the positive livelihood and multiplier effects of ASM. The diversity of the three different site locations also illustrated the complexity and dynamics of the sector, and the commonalities between the licensed ASM sites visited and visible unlicensed activities in the surrounding area.

This was the first time that some participants had visited an ASM site, and it gave them the opportunity to talk directly with miners and community members. Hearing stories directly from people engaged in ASM dispelled myths and challenged long-held and often erroneous beliefs about the sector and the people involved. The field visits largely reinforced and validated the findings of this paper (a draft summary version of which was circulated prior to the field visits), and also enriched them. The field visits particularly highlighted the specific challenges faced by women and their marginalised position (less explored in the reviewed literature) and became a recurring theme over the course of the dialogue.

The improved understanding and changed perspectives that emerged as a result were evidenced by participants' initial reflections in the debrief sessions and complemented many of the research findings. These reflections are summarised below:

- There is a base level of organisation for formalisation efforts to build on. Although ASM activities are often assumed to be disorganised and uncoordinated, the mine operations were in fact well organised, using the same processes as LSM (digging, crushing, milling, washing, amalgamation/leaching), albeit with lower levels of technology and in less sophisticated ways.
- The negative environmental impacts and impoverished socioeconomic conditions experienced by miners and their communities demonstrate the need for comprehensive, joined-up local plans that realise ASM's development potential.
- There is a lack of communication, information, transparency and collaboration between miners, concession owners, communities, local and national institutions and government.
- Women are particularly disadvantaged in terms of their working conditions and wages, position in the community, and participation and representation in decision making.
- There is a need to educate miners about laws and regulations as well as supporting them to meet these requirements, to improve their efficiency and mitigate the environmental impacts of their operations.
- The visits confirmed what the research had already shown: that the situation is complex, with many different people and dynamics involved, and that there are few differences between the licensed mines visited and unlicensed, illegal mines. This made the case that formalising the sector is for all miners – licensed and unlicensed.

Presenting the research immediately after the final site visits on the second day of the dialogue helped participants make sense of the dynamics that had been witnessed, focusing the dialogue discussions and tying the issues together. It reinforced the idea that the negative environmental and socioeconomic issues, which had shocked many participants, are 'expressions' of the more fundamental issues of informality: issues around land, access to finance, and licensing.

7.3 Facilitating collaboration and building trust between stakeholders

Facilitating the potential for new collaboration and building trust among participants began before even boarding the plane from Accra. On the way to the dialogue, during the bus journeys, and during site visits, the dialogue began to take shape organically as many impassioned discussions between participants spontaneously occurred. The field sites provided an informal setting and level playing field for participants (who may not usually come into contact with each other, or in the miners' case, may not usually have access to government) to talk to one another. This built trust and laid the foundations for longer-term relationships and collaboration that continued over the course of the dialogue.

Having the right people present, representing a variety of mining and non-mining institutions, further enhanced the potential for collaboration and new initiatives. The presence of miners themselves and GNASSM at the field visits helped understanding of the site dynamics (as they could explain the activities being witnessed to the group). This also ensured that the voices of labourers and miners at the site could be heard, built trust and the potential for future collaboration as GNASSM representatives networked with government officials, and afforded individual actors the opportunity to reach out to new communities to join their national association. There were also international and local academic experts and representatives of civil society organisations from Ghana and Tanzania. Their presence added legitimacy to field visits, research findings and ongoing dialogue, while also providing the basis for future collaboration and new initiatives.

7.4 Effecting changes in policy and practice

Whilst effecting change in policy and practice is a long-term objective of the whole dialogue process and the roadmap for change, the field visits made an invaluable contribution. They were, in fact, an integral and invaluable part of the action dialogue. As noted, they provided a unique opportunity for policymakers from mining and non-mining institutions to collectively explore the crosscutting issues of the sector firsthand, and connect directly with the people and realities on the ground.

Many participants expressed their concern during the dialogue about the social and environmental issues and working conditions they had observed. Visiting the field sites therefore not only left participants with a more grounded understanding of the sector, but experiencing the stark realities faced by communities left many participants impassioned to effect long-term change through their respective organisations. This impact is likely to far outlast the dialogue.

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Ghana's artisanal and small-scale mining (ASM) sector continues to grow in size and significance. Its contribution to wealth creation, employment and the economy make it one of the nation's most important livelihood activities, directly employing an estimated one million people and supporting approximately 4.5 million more. Yet the majority of miners in Ghana operate informally, without the security of a licence. Formalising Ghana's ASM sector is therefore a significant, timely and pressing developmental opportunity that must now be realised.

In January 2016 Ghana hosted a multi-stakeholder 'action dialogue' on artisanal and small-scale mining. This was the first of a global dialogue series on ASM, planned by the International Institute for Environment and Development (IIED) to facilitate the rights-based formalisation of ASM within a more inclusive and responsible mining sector. This paper provides background research on ASM in Ghana to inform the dialogue – giving an overview of the sector, identifying the barriers to formalisation, and offering some actionable 'ways forward'.

IIED is a policy and action research organisation. We promote sustainable development to improve livelihoods and protect the environments on which these livelihoods are built. We specialise in linking local priorities to global challenges. IIED is based in London and works in Africa, Asia, Latin America, the Middle East and the Pacific, with some of the world's most vulnerable people. We work with them to strengthen their voice in the decision-making arenas that affect them – from village councils to international conventions.



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