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Critical reflections on the formalisation of small-scale mining in Ghana

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Entrepreneurship, Poverty and Sustainability: Critical Reflections on the Formalization of Small-Scale Mining in Ghana

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Abstract

In sub-Saharan Africa, artisanal and small-scale mining (ASM) – low-tech, labour-intensive mineral extraction and processing – provides direct employment to tens of millions of people. Most, however, operate without the requisite permits to mine legally due to a shortage of untitled land, as well as bureaucratic and costly registration processes. This article contributes to this discussion, drawing on fresh evidence from Ghana, the location of one of the largest and most dynamic ASM economies in sub-Saharan Africa. Here, it is explained, there is a sizable gap between what the government *believes* ASM is, and what it *actually* is. This misdiagnosis has spawned a regulatory apparatus that has proved to be a formidable barrier for ASM operators who are attempting to transition to the formal economy. But rather than highlighting this oversight, the media, government officials and donors have focused mainly on the negative aspects of the sector that policy has 'created', including its environmental footprint, poor health and safety record, and numerous social 'ills'. The attention paid to these 'expressions' of ASM's informality and its unsustainable growth trajectory could potentially derail efforts to formalize a sector which, if adequately supported, could catalyze much-needed economic development in one of the world's poorest regions.

Keywords: artisanal and small-scale mining (ASM); economic development; Ghana; poverty; sub-Saharan Africa

1. Introduction

Why have policymakers and donors struggled to formalize artisanal and small-scale mining (ASM) – low-tech, labour-intensive mineral extraction and processing – in sub-Saharan Africa? Over the past two decades, this sector of industry has experienced meteoric growth in all corners of the region (Figure 1), its ability to provide impoverished people with direct employment and create additional jobs in downstream industries earning it the label 'poverty-driven activity' (Barry, 1996; ILO 1999). There is a sizable body of evidence which reinforces this claim: how in a host of African countries that are struggling economically, ASM has become an important livelihood for millions of otherwise-unemployed people. The list includes Tanzania (Fisher, 2007), Sierra Leone (Maconachie and Binns, 2007; Maconachie, 2012), Liberia (Van Bockstael, 2014), the DR Congo (Geenan, 2013, 2014) and – the focus of this paper – Ghana (Hilson and Garforth, 2013). Groups of artisanal and small-scale miners, from farm families through to larger "gangs" of men, women and children, have injected much-needed finance into many deprived sections of rural sub-Saharan Africa in recent years.

The growing importance of ASM in sub-Saharan Africa and elsewhere in the developing world, however, continues to be heavily overshadowed by its environmental and social impacts. As is documented extensively in the literature, the industry's activities are often unsafe and hazardous; associated with widespread land degradation and chemical pollution; and tend to spawn settlements that are unsanitary, and which have high concentrations of infectious disease and narcotics consumption (ILO, 1999; Hentschel et al., 2002). But what most of these critiques fail to clarify is that these impacts are largely 'expressions' of the sector's unsustainable development trajectory and perpetual informality. Most small-scale miners in sub-Saharan Africa operate without the requisite permits, largely because of a shortage of untitled land, as well as bureaucratic and costly registration processes that discourage, rather than entice, individuals to formalize their activities. Scholars and analysts (e.g. Davidson, 1993; ILO, 1999; Hentschel et al., 2002; Hilson, 2002) first drew attention to these problems 15-20 years ago, arguing that policy frameworks, which were not particularly 'operator friendly', prevent people from transitioning to the formal ASM economy. It is now more of a case of efforts made to transform mechanized large-scale mining into an export-led sector and interventions aimed at formalizing ASM not being 'even-handed' (ILO, 1999). In sub-Saharan Africa, the former task has been heavily prioritized, which has made the latter undertaking excessively difficult, and in some instances, impossible.

The purpose of this article is to build on this discussion by providing fresh insights on the implications of the current approach taken to formalize ASM in sub-Saharan Africa. Whilst there has been considerable speculation over the years that, despite the donor rhetoric, formalization of the region's ASM economy *has not* received the attention in policymaking it deserves, few scholars have explored the consequences of this neglect. Findings from recent research conducted in Ghana, the location of one the largest and most dynamic ASM economies in sub-Saharan Africa, illustrate very clearly the sizable discrepancy between what host governments and donors believe they are formalizing on the one hand and the realities of the sector on the other hand. The policy frameworks and support structures instituted for ASM have failed to reach most operators, who, unable to make the necessary payments for licenses and land, have been forced to continue leading an informal sector existence, and consequently subject themselves to the many challenges and problems that comes with this decision. The analysis that follows goes a long way toward explaining why informal, environmentally-degrading and hazardous ASM activity undertaken in socially-deplorable settings continues to expand unabated across rural sub-Saharan Africa.

2. Setting the Scene: Artisanal and Small-Scale Mining in Sub-Saharan Africa

Whilst ASM has found a home in development studies scholarship in recent years, it has gone virtually unexamined in the business and management literature. This is somewhat surprising, given the way in which the sector has long been perceived and, for the most part, continues to be viewed by donors and policymakers: as an entrepreneurial venture pursued by opportunistic business-minded people. Repeated reference in a scattering of reports published over the years to ASM being largely populated by enterprising individuals (Alpan, 1986; Noetstaller, 1987) and, in the case of sub-Saharan Africa, detailed coverage of a series of events which reinforce this perception, namely mineral-fuelled conflict in Sierra Leone, Liberia, Angola and Madagascar (Le Billon, 2001; Cartier, 2009), has, rather curiously, failed to spark much investigation into the perceived entrepreneurial spirit of the sector.

Over the past 10-15 years, development studies scholars have supplied ample evidence which illustrates quite clearly that ASM – at least in the case of sub-Saharan Africa – is much *different* to the industry which host policymakers and donors typically project. It points to the sector having become a rooted and integral element of the region's rural economy, its inhabitants and capital flows connecting it to other industries such as agriculture and various trades. As indicated, most of the attention has been paid to ASM's very visible negative side, which governments and donors have failed to clarify in their diagnoses is largely a result of activities being confined to the informal sector. Before examining the implications of this oversight, it is instructive to first provide an overview of ASM in sub-Saharan Africa. A deliberate effort is made here to fuse the analysis presented by development studies scholars with key – and what could very well be considered parallel – debates in the business and management literature.

2.1 Drivers and Characteristics of ASM in Sub-Saharan Africa

In May 1995, the *International Roundtable on Informal Mining*, was held at World Bank headquarters in Washington DC. It was a gathering of ASM experts from around the world but which, unlike previous meetings, presented and debated new ideas about the sector (see Barry, 1996). Foremost among these was that ASM was largely 'poverty-driven', populated by individuals who are struggling to subsist off of incomes generated from other work or who are unemployed outright. It marked the first time, in an international forum, that experts recognized, explicitly, the industry's much-neglected livelihoods dimension.

The idea that ASM is poverty-driven has since been explored, in the context of sub-Saharan Africa, by a number of scholars (e.g. Maconachie, 2011; Kelly, 2014; Mbianyor, 2014). Broaching broader debates on social deprivation, livelihood diversification and rural economic development, this rich body of analysis has provided valuable insight on the experiences and backgrounds of the sector's inhabitants. It very importantly has linked the rapid growth of ASM in sub-Saharan Africa to broader economic changes, notably moves made under the auspices of structural adjustment programs, including privatization of state assets, a 'roll back' of the state, a revaluing of currencies and an emphasis on increased trade liberalization. As the literature explains, tens of thousands of the people made redundant and put in precarious financial positions, almost instantaneously as a result of these changes, have since found refuge in ASM. In countries devoid of economic opportunities and which occupy the bottom-third of the Human Development Index, participation in the sector as, *inter alia*, a general labourer, skilled machinist, supervisor or bookkeeper, has provided immediate economic relief to a range of itinerate farmers, redundant large-scale mine employees and former public sector workers. Many of these people seem to have grown to accept their 'relocation', and have skilfully used the sector as a platform for wealth creation, in the process generating the funds needed to pay for their children's school fees, purchase better housing, and in exceptional cases, as capital to pursue other business ventures such as hotels and chemical dispensaries (Werthman, 2009; Hilson and Garforth, 2013).

In the business and management literature, debates on 'necessity entrepreneurship' mirror quite closely scholarly discussions on poverty and ASM in development studies. A host of studies (Fisher, 2007; Hilson et al., 2013) have shown, quite illustratively, how endemic poverty and a lack of economic opportunities have driven scores of Africans to become entrepreneurs out of necessity. The activity these individuals pursue, explain Bosma et al. (2008), 'is high particularly at low levels of economic development, as the economy may not be able to sustain a high enough number of jobs in high-productivity sectors... [but as] an economy develops, the level of necessity-driven entrepreneurial activity gradually declines as productive sectors grow and supply more employment opportunities' (p. 7). As Diomande (1990) fittingly puts it, 'As necessity is the mother of invention, these entrepreneurs have developed a variety of unconventional approaches for creating and sustaining their businesses' (p. 191).

The situations in which necessity-driven self-employment activity typically surfaces, however, can vary, and in many cases, is not necessarily productive. This point was initially broached by Baumol (1990), who noted that 'there are a variety of roles among which the entrepreneur's efforts can be reallocated, and some of those roles do not follow the constructive and innovative script that is conventionally attributed to that person', furthermore qualifying that, 'How the entrepreneur acts at a given time and place depends heavily on the rules of the game the reward structure in the economy that happen to prevail' (p. 894). There are also poor areas of the world – and sub-Saharan Africa in particular – where the market, not necessarily the entrepreneurial spirit of an individual, can limit the growth of a business. This is what Sautet (2013) claims leads to 'local entrepreneurship', although, the author concedes, it is more likely that it overlaps with 'necessity entrepreneurship' to some degree.

What *is* clear is that in sub-Saharan Africa, Schumpeterian views of entrepreneurship have less resonance than in most other parts of the world. Failure to recognize the region's economic realities largely explains why, when examined through a Western lens, entrepreneurship in the region 'makes gloomy reading': rather than taking stock of the unique attributes under which self-employment opportunities emerge, analysis often 'stresses the difficulties that Africans have sometimes experienced in running large businesses' and therefore ends up 'viewing entrepreneurship in the wrong context' (Elkan, 1988, p. 171). Whether 'necessity', 'local' or a combination of the two, most African entrepreneurs do not have the luxury of being selective when it comes to making decisions concerning, *inter alia*, labour, the number of economic activities they undertake, and business partners. Diomande (1990) views this resourcefulness as a positive development, contesting that 'There are lessons that entrepreneurs in the United States and other developed countries can learn from the experiences of [African] entrepreneurs', because where resources *are* readily available, 'an entrepreneur can sometimes become so distracted by the formal process of searching for conventional capital by conventional means that the new business never gets off the ground' (p. 191). While this may, indeed, be the case, it seems inappropriate to portray situations where individuals become entrepreneurs because of their perilous economic situations as 'best practice'. Perhaps most significantly – and the point of departure in this discussion concerning ASM – 'Most of the productive entrepreneurial activity in developing countries in Africa and elsewhere is in the informal sector' (Spring and McDade, 1998, p. 10). As a number of timely critiques in anthropology, development studies and political science have shown over the years (Hart 1973; King 1977; Crisp and Kelly 1999; De Soto 2000), harsh economic conditions and widespread unemployment, brought about by the imposition of a Western financial model and other conditionalities attached to World Bank and IMF loans, have 'created' and fuelled the rapid expansion of the informal economy.

The management literature (e.g. Sautet, 2013; London et al., 2014) captures the essence of the informal sector's entrepreneurial spirit both generally and in the context of sub-Saharan Africa more specifically quite well. There is now a sizable body of scholarship which articulates clearly the linkages between 'necessity entrepreneurship' and informality. Webb et al. (2014) sum up the situation in sub-Saharan Africa fairly accurately. The authors point to how formal institutions are often 'an embodiment of society's informal institutions, the diversity and pluralisms of normal values and beliefs', which may prove unappealing to individuals, who prefer 'their own norms, values, and beliefs', especially in instances where 'formal institutions are viewed as unfair, untrustworthy, or otherwise incompetent' (p. 7). These formal institutions, it is further argued, 'are often massive, dynamic, multilevel systems of myriad policies and supporting apparatuses', a complexity which can prove further discouraging for a number of individuals already forced to rely on informal lending and insurance, and household transfers because of ineffective state support services and corruption.

With a large share of enterprises in sub-Saharan Africa being family businesses, it is not surprising that, when confronted with such a bureaucracy, most individuals elect to continue operating in the informal economy. A study by Khavul et al. (2009) captures the scale of the financial challenges small groups can face, reporting that in East Africa, it takes on average 56 days to form a business and costs 148 percent of the GNI per person to secure the required licenses. Verick (2004) projected these figures to be even higher, reporting that in sub-Saharan Africa, on average, there are 20.1 licensing procedures for a business; that registration takes on average 251.8 days to complete, ranging from 127 days in Ghana to 569 in Cote D'Ivoire; and that the average cost of registration amounts to 1597.3 percent of GNI per capita, with a minimum of 16.7 percent in Mauritius and over 10,000 percent for Burundi. By contrast, in OECD nations, it takes on average 14 days and costs 5 percent of the GNI per person. Revisiting points put forward by Diomande (1990), confined to an informal sector existence, African entrepreneurs 'in resource-starved environments are forced to redefine the concept of resources' (p. 192), and therefore, have little choice but to draw on social assets for start-up capital; secure additional finances through rotating borrowing systems for additional funds; and acquire essential human capital through apprenticeships.

Although Diomande (1990) was speaking abstractly, these very attributes have long been the hallmarks of ASM in sub-Saharan Africa. As indicated at the outset, the vast majority of ASM activities in the region are found in – or perhaps more precisely, confined to – the informal economy due to exorbitant permitting fees, bureaucratic licensing processes, and a shortage of land. Over a decade ago, officials at the International Labour Organization reflected on the inappropriateness of the regulatory structures in place for ASM in the landmark report, *Social and Labour Issues in Small-Scale Mining* (ILO, 1999). They argued that the industry 'is bedevilled with too many regulations that are mostly designed to constrain it and too few inspectors to ensure that they do' (np). This is a story which the development studies literature has since elaborated on in considerable depth.

The problem, however, is that host governments and donors still cling to the belief that ASM is a 'rush type' activity populated exclusively by enterprising businessmen, at the same time failing to take notice of how the role of the sector, under structural adjustment, has changed. Despite evidence which points to the ability of businesspeople in sub-Saharan Africa to innovate being strongly linked to educational levels and there being a positive correlation between poverty and necessity-driven entrepreneurship across the region (Ahwireng-Obeng and Ncube, 2005), policymakers and donors appear unconvinced that these apply to ASM. This, it is argued in the discussion that follows, could explain why the policies and regulations in place for the sector in sub-Saharan Africa are more suited to the 'opportunity-driven' entrepreneur as opposed to the 'necessity-driven' individuals who populate this mostly-'poverty-driven' activity.

Hypothesis 1: In sub-Saharan Africa, a large share of ASM activity is poverty-driven and confined to the informal economy.

2.2 Formalizing ASM in Sub-Saharan Africa: Initial Reflections

Why should African governments consider revisiting their approaches to formalizing ASM? Apart from putting themselves in a position to collect taxes and other revenues, by bringing operations into the legal domain, they are able to regulate activities more effectively, minimizing their environmental and social impacts, in turn potentially catapulting the industry on to a more sustainable development trajectory.

This in part explains why concerns about the appropriateness of the policies and regulations implemented to formalize ASM in sub-Saharan Africa and elsewhere in the developing world have mounted. Governments have generally dismissed most the recommendations prescribed for simplifying licensing systems and formalizing ASM, and have mostly ignored the evidence which points to the sector having become a rooted and integral element of rural African society and populated by eclectic groups of individuals. This paper will reflect critically on the implications of the continued failure to 'connect' with the sector, broaden understanding of miners' struggles and experiences, and implement more 'operator-friendly' industry formalization structures. The view that ASM is purely pursued by businessmen is, as noted, now deeply entrenched at the policymaking level; governments seem unmoved and unconvinced by the countless testimonies which suggest otherwise.

In sub-Saharan Africa, this perception began to galvanize following publication of the World Bank's landmark report, *A Strategy for African Mining* (World Bank, 1992), which prescribes strategies for reforming the mining sector. The document rather inexplicably calls for ASM operators to compete on the same terms as foreign investors who finance large-scale mineral exploration and extraction projects, despite claims made by the same World Bank officials, just over a decade previously, that the sector [ASM] 'requires special attention when formulating policies and drafting mineral and fiscal legislation, when staffing the ministries, and when preparing a mining sector development plan' (Bosson and Varon 1978, p. 264). Among other things, *A Strategy for African Mining* states that:

> Much of the mining legislation enacted in African countries since independence envisages that 'small-scale mining' will be reserved for citizens or local companies while 'large-scale mining' will be the province of state mining corporations or large foreign mining companies. . .There is no good reason to create differential access to mineral rights for different classes of mining investor. A state mining enterprise should compete on the same terms as a privately-owned company, foreign on the same terms as national, large companies under the same broad rules as small ones. [World Bank, 1992, p. 22]

The majority of the 36 countries in the region that had, by the end of 1995, implemented rigid policy frameworks and legislation with the aim of formalizing ASM, and/or which had established sector-specific administrative and technical institutions to facilitate this move or were in the process of doing so (Fisher, 2007), followed the prescriptions put forward in *A Strategy for African Mining*. The bedrock for an informal ASM economy, therefore, was laid very early on in the region.

Although countless views of informality have emerged over the past four decades (Bacchetta, 2009), many of which help to explain ASM's meteoric growth and composition in sub-Saharan Africa, most can be placed into three 'dominant schools of thought regarding its [the informal sector's] nature and composition' (Chen, 2012, p. 4): the *Dualist* School, the *Structuralist* School and the *Legalist* School. These schools offer very unique and for the most part, contrasting, perspectives on why informal economies emerge. It appears, however, that *all* of these narratives, in some capacity, apply to informal ASM in sub-Saharan Africa.

The fact that a large share of ASM activity now found in the region is largely poverty-driven reinforces the position of the *Dualist* school, which 'sees the informal sector of the economy as comprising marginal activities…that provide income to the poor and a safety net in times of crisis' (Chen, 2012, p. 4). This view, which is underpinned by the earliest conceptualizations of the informal sector (e.g. Hart, 1973; King, 1977), furthers points raised earlier in this paper about ASM in sub-Saharan Africa, specifically how its growth is linked to broader economic changes. The *Dualists* argue that informal units and activities operate in their own 'space', as a distinct separate sector of the economy with few, if any, linkages to formal sector enterprises (Yu, 2010). This, however, seems to be the extent to which the ideas of the *Dualists* apply to ASM in sub-Saharan Africa: explaining why it arises altogether. As shown in a number of detailed empirical analyses (Fisher, 2007; Hilson et al., 2013), and as will be elaborated further in the study of Ghana that follows, *both* unlicensed and licensed operators interact with one another; operate in, and compete for, the same spaces of production; and aspire to access the same support services.

The enabling conditions for the sector's informality, specifically its 'secondary status' under reform, is perhaps best explained by the *Structuralists*, a school which emerged in the 1970s and 1980s. Proponents, explain Alderslade et al. (2006), view the informal economy 'as subordinated economic activity to the formal economy' but at the same time, argue that both sectors are 'inextricably connected and interdependent' (p. 3), with the former comprising small firms and unregistered workers, and subordinated to large capitalist firms This is what has played out in the mining sector in sub-Saharan Africa where, as explained, under reform, the fostering of the growth of capital-intensive large-scale mineral exploration and extraction has been prioritized (Hilson and McQuilken, 2014). The region's governments have generally only moved to overhaul legislation for, and facilitate the formalization of, ASM *after* a policy and investment framework for large-scale mining has been established, and there are visible signs of its growth.

This largely explains why so little land is now available for prospective small-scale licensees. The concession maps that can be retrieved on *Flexcadastre* (http://www.spatialdimension.com/Map-Portals), including those of Tanzania, the DR Congo, Mozambique, Zambia and Uganda, reveal that a sizable section of territory – a cursory glance shows, in some cases, 70 percent – is now in the hands of large-scale mining companies. Reforms have brought these small-scale operators and multinational mining companies together in sub-Saharan Africa. It has been an uncomfortable marriage for both groups of operators which, under the policy frameworks that *A Strategy for African Mining* has spawned, has fuelled intense competition for mineralized land.

Davidson (1993) was one of few individuals with the foresight to reflect on the need to create adequate 'space' in policy for ASM at an early stage of reform. The author argued, at the time of publication of *A Strategy for African Mining*, that in order to facilitate formalization, ‘Governments must be prepared to move beyond the establishment of legal frameworks, to identify deposits and areas amenable to small-scale development, including the preliminary evaluation of their technical and economic viability at different levels of operation’ (p. 317). In response to mounting criticisms about failing to prioritize formalization of, and provide assistance to, ASM, donors and governments often draw attention to the millions of dollars pledged to support the sector over the years. The exhaustive list includes donor-funded education and technological assistance for more effective management of mercury, a persistent pollutant when methylated and used to amalgamate gold; a series of microcredit and lending schemes; and various equipment-leasing programs. This assistance, however, is only available to individuals who are in possession of the requisite permits. But given the widely-documented struggles most operators must endure in transitioning to the formal economy, very few individuals have managed to put themselves in a position to qualify for this support, let alone access it. This makes the lack of donor and government response to concerns voiced about ASM formalization even more disconcerting: simply ignoring criticism about licensing being too burdensome, very little land having been put aside for operators, and the need for registration processes to be much more ‘operator-friendly’.

The potentially-unique attribute of ASM in sub-Saharan Africa is that its informality could be a deliberate construct. There is no obvious reason for host governments and donors not to deploy more innovative strategies to formalize the sector, which is a fairly autonomous, self-sustaining entity in sub-Saharan Africa, propelled by local investment and social capital. Servicing local economies, targeting particular deposits, and, in the case of diamonds and coloured gemstones, a part of vertically-integrated supply chains, ASM operators, for the most part, are not in direct competition for mineral resources with the capital-intensive large-scale miners who now dot the region’s landscape. The focus of the analysis presented in this paper, however, is not what drives individuals to engage in unlicensed ASM in sub-Saharan Africa but rather why they elect to remain informal. The story emerging is, again, a disconnection between who policymakers and donors believe they are formalizing and regulating on the one hand, and the individuals – generally asset-less, cash-strapped and desperate for some security of tenure – who seek permits on the other hand. Believing they are catering to opportunistic and enterprising businessmen, policymakers continue to design and implement regulatory frameworks and permitting schemes which are stifling rather than facilitating the formalization of ASM. In addition to prioritizing large-scale mine development, continued lack of commitment and underestimation of the resources needed to bring this industry's activities into the legal domain and adequately respond to operators' needs has produced landscapes in which prospective permit holders find it difficult, if not impossible, to manoeuvre.

Such experiences would reinforce the arguments tabled by the *Legalist* school. As explained by Chen (2012), *Legalists* argue that informality results from the collective decision of 'plucky' micro entrepreneurs – although again, entrepreneurship in the context of ASM in sub-Saharan Africa falls mostly into the 'necessity' category – 'who choose to operate informally in order to avoid the costs, time and effort of formal registration and who need property rights to convert their assets into legally recognized assets' (p. 4). They maintain that government deregulation and the removal of barriers and unnecessary bureaucracies are keys to facilitating economic freedom and entrepreneurship among poor working people in developing countries (Chen, 2007), which would allow 'unimpeded capital flow between financial institutions and entrepreneurs, efficient and effective government processes, and access to good market data' (Alderslade et al., 2006, p. 17). The school's main champion is De Soto (1989, 2000), who argues that the poor would be empowered if their informally-held assets were converted into real assets.

The explanations for the informal ASM now rooted in sub-Saharan Africa, however, are slightly more nuanced than those provided by De Soto and which underpin the *Legalist* school on the whole. Whilst the evidence certainly points to operators avoiding licensing because of the costs and bureaucracy, most do indeed covet the requisite permits and security of tenure that they potentially provide. Alderslade et al. (2006) comment on the issue more generally:

> Contrary to the perspective of those belonging to the legalist school of thought, informal economic activity is not solely fueled by the desire to circumvent government taxes and regulation. Rather, many informal employers and workers remain in the informal economy due to the aforementioned barriers to formalization, or circumstantial matters requiring that they do so in order to survive. Many informal actors may welcome entry into the formalized economy, as they stand to gain certain benefits such as increased wages, better working conditions, and financial assistance in the form of small business loans. [p. 17]

If ASM operators in sub-Saharan Africa aspire to becoming licensed, as is widely believed (Tschakert and Singha, 2007 Van Bockstael, 2014), it makes decisions to continue implementing what are clearly inappropriate policy structures for formalization even more perplexing.

In summary, the problem in the case of sub-Saharan Africa appears to be two-part. First, there is the disparity between what most of the region's governments and donors believe they are formalizing and what ASM actually is. Second, there are the implications of this prolonged – and unnecessary – disconnection. These two issues are explored at greater length drawing on recent findings collected in Ghana.

Hypothesis 2: Failure to adequately diagnose the circumstances under which most ASM operations emerge in sub-Saharan Africa has led to the implementation of inappropriate laws and policies for the sector, creating the conditions under which unlicensed, environmentally-degrading and socially-deplorable activities flourish.

3. Methodology

This paper offers fresh insights on the rationale and implications of the current approach being taken to formalize ASM in sub-Saharan Africa. It does so by focusing on the case of Ghana, the location of one of the region's largest and most dynamic ASM sectors: here, over one million people are employed directly in the industry and countless more in the downstream industries it has spawned. Ghana is also seen as a trailblazer of mining sector reform in sub-Saharan Africa, being the first country in the region to overhaul its mining policies and ultimately lay a foundation to legalize and formalize small-scale activities. It has, therefore, long been heralded as the 'model' for mining sector reform in sub-Saharan Africa, its experiences heavily informing the policy prescriptions presented in *A Strategy for African Mining* (World Bank, 1992).

The specific objectives of the paper are as follows:

1. To broaden understanding of the ASM formalization process in Ghana, and to present viewpoints from operators and governments officials on the experience and its appropriateness.
2. To reflect critically on the implications of not adapting licensing and permitting structures for ASM.

To address these objectives, a series of semi-structured interviews were carried out with key actors, identified, based on more than a decade of research (Hilson and Potter, 2003; Hilson, 2010; Hilson and Garforth, 2013; Hilson et al., 2014), as the key stakeholders in Ghana's ASM sector. From this information, a basic stakeholder map was constructed (Figure 2), its constituents falling principally into one of three groups: 1) the government, specifically the local and national-level officials from the key policymaking bodies which wield the most influence in the administration and regulation of the sector; 2) the industry's 'support network', chiefly, major financiers and representatives from relevant associations; and 3) the ASM community itself, namely operators.

Qualitative research, specifically semi-structured interviews, was carried out because an attempt was made to survey the opinions of these stakeholders on the challenges with formalizing ASM and the sector's illegality. In accordance with the constructivist tradition, which seeks 'to involve many stakeholders and to obtain multiple perspectives on the subject of research and the meaning of the concepts, through semi- or unstructured, exploratory data collection methods' as well as 'provide and facilitate an understanding of the subject…and bring about change and empowerment of the stakeholders in the process' (Christiaensen, 2005, p. 69-

70), the views shared by the stakeholders interviewed helped to develop a more nuanced picture of the organization of ASM in Ghana, improve understanding of the struggles endured by operators, and bring to light the diversity of opinion on the sector's informality.

The research featured two phases of semi-structured interviewing, carried out between February and August 2014, in the country capital of Accra and Dunkwa (Upper Denkyira East Municipal District), a township located in the country's Central Region with exceptionally high concentrations of both licensed and unlicensed small-scale gold mining activity (Figure 3). During the first phase of the research, interviews were conducted with representatives from key regulatory bodies. In addition to the Ghana Minerals Commission, the main policymaking body for ASM in the country, consultations were sought with officials from all of the bodies that make up the newly-formed 'Inter-Ministerial Task Force on Illegal Mining', the government's latest move to eradicate informal (ASM) activity: 1) the Ministry of Lands and Natural Resources, 2) the Ministry of the Interior, 3) the Ministry of Defence, 4) the Ministry of Foreign Affairs and Regional Integration, and 5) the Ministry of Environment, Science, Technology and Innovation. Interviews were also pursued with the relevant district-level Minerals Commission officers and District Chief Executive (local government office) in Dunkwa. In total, 14 government officials were interviewed during the first phase.

Alongside these consultations, interviews were carried out with representatives from five microfinance and banking institutions in Ghana that provide loans to small-scale miners, as well as three executive members of the Ghana National Association of Small-Scale Miners, the 'mouthpiece' of the country's ASM sector. During the second 'grassroots' phase, interviews were conducted with small-scale mine operators. In total, 20 of Dunkwa's most influential operators (both licensed and unlicensed), determined from conversations with local government officials and executive members of the Association, were interviewed. The diversity of these miners' experiences and backgrounds yielded a range of rich data.

Questions revolved around the ASM licensing experience itself, and the issues reviewed above that would be seen to be keys to facilitating formalization in this context by the *Legalists*: simplification of registration processes, increased availability of land, and greater access to financial and technological support. The analysis presented in the next section of the paper follows this format.

4. Formalizing Small-Scale Mining in Ghana

4.1 Perspectives on ASM in Ghana

Few would dispute that Ghana's unlicensed ASM activity – popularly referred to locally as *galamsey*[1] – is environmentally-degrading, generally carried out in hazardous conditions, and associated with numerous social 'ills'. The media have worked tirelessly to paint a negative picture of the sector, often referring to it as 'destructive' 'a menace' and 'an eyesore' (Ghana Web, 2014). Local newspapers even regularly associate *galamsey* with unrelated cases of rape, robbery and murder (Appiah, 2014; Boadu, 2014; Vibe Ghana, 2014). By focusing on the negative aspects of ASM, the media have succeeded in convincing a largely-uninformed public that the sector itself is problematic. It is therefore challenging to build a case on the idea that these problems are merely 'expressions' of the sector's unsustainable development trajectory, the root cause of which is its perpetual informality (Hilson, 2013).

The Government of Ghana, and perhaps more surprisingly, advising donors, has not changed its tone on ASM in the past two decades, despite mounting evidence which links the unpredictable and seemingly-chaotic growth of activities to poverty and broader economic changes in the country (see e.g. Hilson and Garforth, 2013; Hirons, 2014; Okoh, 2014). Whilst Ghana's policymakers have, on occasion, verbally acknowledging the sector's livelihoods dimension, their general approach to formalize ASM and simultaneously eradicate unlicensed activity is reminiscent of a unit which has not yet detached itself from the opportunistic entrepreneur discourse, convinced that the sector is populated solely by individuals seeking personal fortunes. Quotes in interviews verified as much, exposing a government that is not quite in tune with the realities of ASM, and which seems disinterested in determining why the sector's activities are predominantly informal and have followed the unsustainable development trajectory they have. The rhetoric, though packaged differently at times, has also changed very little over the years, with emphasis consistently being placed on 'formalization' and the content of the law. The views expressed by one senior policymaker in interview are fairly representative of the government's stance on ASM:

> I want ASM to be an integral part of the economy…What is happening now [with unlicensed mining] is robbery. Last year alone, 2012, about 30 percent [of gold] was produced by small-scale mining. [We need] To use law and order to bring sanity into the ASM sector. The law says that any non-Ghanaian cannot do small-scale mining.[2]

The same official did acknowledge the 'need [for] creative ideas to make ASM legal' but the government's approach to formalization remains uninspiring, failing to produce the requisite 'space' in policy to make such creativity possible. Its handling of, and response to, *galamsey* activity explains why it remains so detached from ASM's realities.

Ghana's policymakers have consistently tackled unlicensed ASM with force and brutality, relying on security forces and the army to forcibly remove operators. In the past, the government has coordinated military 'sweeps' (or 'swoops' as they are referred to on the ground) of unlicensed mining communities, which have failed to discourage informality. These sweeps have rather had the opposite effect: entrenching illegal activity even further, the confiscation and destruction of equipment by police and soldiers forcing many miners to go 'further underground' to accumulate the monies they have borrowed to pay labourers and purchase there pumps, crushing machines and generators. But despite the well-documented adverse impact of these sweeps, the government has responded even more aggressively by organizing the aforementioned National Task Force, a move which, unsurprisingly, has had destructive results. This is owed to the – rather inexplicable – branding of *galamsey* as a 'security threat'. As one government official clarified, in response to why the Task Force was assembled, in an interview, 'It [illegal mining] was considered a national security issue by the sheer magnitude of the problem [because] it had the potential to affect food security, availability of fresh water and long term contamination of soils [and] it also involved foreigners and the illegal foreign nationals were armed and in some cases exchanged fire with the police'.[3] Another official echoed these views, explaining that '…this was done because of the nuisance and illegality of the operations and the need for support [and] it was made up of the Army and the Police... [because] Anything illegal is a security threat [and] when there is an illegality then you have to find out if it is just *galamsey* or something else who are involved and we can ask these questions; what are they hiding from the agencies'.[4]

The continued reliance of the government on the police and army is likely in response to the growing proliferation of Chinese small-scale miners. In the span of only a few years, Ghana has attracted an estimated 50,000 'gold seekers' from China, the majority of whom have rapidly dispersed and mostly taken refuge in rural communities engaged in illegal ASM. The technology the Chinese have introduced – specifically, dredging and advanced excavators – has destroyed vast sections of Ghana's rivers and landscape. The abovementioned 'expressions' of the ASM's informality have, in the wake of a Chinese-led gold rush, become more 'visible'. One miner reflected on this in an interview, explaining that 'I *per se*, I don't think we should single out Chinese because here are more foreigners but we mention Chinese because Chinese they are the majority [and] we only see them here'.[5]

As expected, contrary to the views shared by government officials, the miners interviewed maintained that *galamsey* activities are integral to rural livelihoods, reinforcing arguments voiced by scholars for over a decade (Hilson, 2002; Aryee et al., 2003; Hilson and Potter, 2005; Tschakert and Sinha, 2007; Hilson and Garforth, 2013). The collective view was that a growing number of Ghanaians have, indeed, come to rely on ASM for their income. One miner summed up this dependence in an interview, reporting that 'I think ASM is good employment source for the locals… [and that] entire villages depend on the sector more than farming'.[6] The interviewee also broached a very important subject which, as noted earlier in this paper, must be taken into account in rural planning strategy if poverty and local development is to be addressed effectively in Ghana and elsewhere in sub-Saharan Africa: the linkages between subsistence farming and mining. One miner in particular was very clear on the need to take into account these dynamics when providing support to rural families, explaining in an interview that 'Those farmers who combine mining and farming will be resourceful because she is not only dependent on the farm [because] if somebody is a miner *and* a farmer, they will be able to use money from the mine to support the farming business'.[7]

The mounting evidence pointing to ASM being integral to rural livelihoods in Ghana raises questions about the continued use of force to tackle illegality. The collective view of the miners interviewed was that the Task Force was the latest example of how unresponsive the government is to operators' needs and struggles. One executive member of the Association was particularly critical of the move, explaining in an interview that it 'has become a failure because they have not involved the miners and they don't know the terrain, and the people they brought took bribes from the Chinese'.[8] A small-scale miner consulted elaborated on these points, similarly criticizing policymakers for not involving miners:

> Task Force had good intentions but the way was executed was not the best…They [the government] should have called the stakeholders to talk, and hold the Ghanaians inheriting Chinese on concessions to reclaim sites…Ghanaians who did not have their papers, they destroy their equipment…You go there with brutal force to destroy their machines without asking questions…When the president set up the Task Force, the Minerals Commission should be advising them. Why? You go in, burn their excavators, lock them in Kumasi, and you break their livelihood.[9]

The problem with the Task Force was that it was, as indicated, associated with human rights abuses, and responsible for the vandalizing and confiscation of a substantial amount of expensive machinery. Moreover, according to some miners interviewed, police and army officials stole gold concentrate.

The most significant impact of the Task Force, however, was, as one miner put its 'indiscriminate' actions, specifically how, 'at [even] a licensed site…they [army officials and police] would bully you, burn your equipment'.[10] If the Task Force was assembled to eliminate illegal mining activity, why was the heavy machinery owned by individuals in possession of the requisite permits to operate also seized? Importantly, for the miner, what does this say about the security of tenure supposedly provided by a license? A Dunkwa-based miner and local leader reflected on the adverse impacts of government officials' failure to engage with miners during the planning phases of the 'sweeps' undertaken by the Task Force, explaining in an interview that 'The Task Force was, what word can I use?...it was not the best because how can you go to a site and not know if it's licensed or unlicensed?…When they formed the Task Force, they should have added us [miners] because we know the areas where this illegality is'.[11] Yet, most Dunkwa-based miners interviewed did not seem at all surprised by the results, reiterating that their voices have been marginalized in policy dialogues for decades.

What, then, is needed at this point? One very influential miner reflected on the shortcomings of efforts made to formalize ASM in the country to date, and outlined what course of action the government must take if it is to salvage what little reputation it has left in the eyes of operators:

> Our leaders operate on sentiments and hardly they consult stakeholders before they do it. I don't know if they have done enough research [the government]…If you ban small-scale mining, millions of people will lose their jobs and come to the city. Instead of looking at the negative side how can we look at the positive side but they are more with the positive side, pollution of water bodies, etc. They focus too much on the negative side…You go there with brutal force to destroy their machines without asking questions because a miner at the village, compared to farming, they got more from mining. How can we balance the two?'[12]

Interestingly, even some policymakers interviewed seemed to acknowledge the shortcomings of efforts to formalize ASM. One was particularly critical about the leadership of and direction provided by the Minerals Commission, explaining in an interview that the 'Treetop management of the Commission [has been] there for 30 years, they come on [from] National Service, so they have repeated their mistakes, even before they legalized ASM, you know they were moving up'.[13]

With new management installed at the Commission in 2014, will there be a change in approach? Its first significant move, under the pretext of 'sanitizing ASM', was announcing its intentions to re-categorize mining in the country, specifically changing the existing two-pronged 'Small-Scale' and 'Large-Scale' to a four-pronged 'Artisanal', 'Small-Scale', 'Medium-Scale' and 'Large-Scale' (GNA 2014a, 2014b). But it is unclear how this will benefit the tens of thousands of unlicensed small-scale miners who already faces stiff competition from foreign large-scale operators. Is further empowering the small group of Ghanaians who are capable of meeting what stringent requirements come with securing a medium-scale mining license going to help 'sanitize ASM'? Early indications point to the creation of a 'Medium-Scale' category stemming from the new management's view that if miners have enough finance and flexibility to acquire heavy machinery and partner with Chinese investors, then they should have the means to obtain such a permit, regardless of the hurdles that must be overcome.

The growing presence of foreigners and equipment at sites, however, appears to have been heavily misinterpreted by the Commission and other government agencies as 'opportunistic entrepreneurship' when, as recent research shows (Hilson et al., 2014), it is simply the opposite: a response to a lack of accessible support and security of tenure. As has been shown and will be further explained in the section that follows, land and licenses are in short supply, the disconnection between who the Government of Ghana believe it is legalizing and supporting on the one hand, and the individuals who are actually seeking permits on the other hand, spawning an untenable policy framework that is 'creating', rather than eliminating, pockets of *galamsey* activity in the country.

4.2 Small-Scale Mining in Ghana: An Opportunistic Venture or Poverty-Driven Activity?

Many of the miners interviewed certainly conformed to the 'opportunistic entrepreneur' stereotype. For example, 'Gus', who has interests in Dunkwa, reportedly owns 10 excavators and has 50 employees. Similarly, 'Vic', who arrived in Dunkwa in 2003 from Prestea, another gold mining town, claimed to own 22 excavators. 'Fergus' and 'Albert', both of whom have interests in Dunkwa, are also quite affluent, the former a long-time employee at the international mining company, AngloGold Ashanti, armed with a degree in mining engineering and in possession several excavators, and the latter claiming to own 13 excavators, and have 128 labourers and 16 office personnel.

But in each case, exceptional circumstances seem to have put these miners in a position to secure a license, assemble a staff and obtain lands: for 25 years, 'Gus' has lived in Germany, where he mainly turned to mobilize foreign investment in his operation; 'Albert' has Bachelors and Masters degrees from the United States, where he lived and worked on Wall Street for more than a decade after graduating, and is bankrolled by family members and American investors; and 'Vic' and 'Fergus' were able to advance by chance, the former with assistance from individuals met in Prestea and the latter, courtesy of connections forged through working various apprenticeships. Another licensed small-scale miner, 'Tom', who runs what would be considered a 'medium-scale' company, worked in government for 17 years, departing as a chief finance officer, a position which put him in an excellent position to network and ultimately, to secure five concessions, lease excavators to other operators and export gold.[14]

As indicated, however, most of Ghana's small-scale miners do not have the financial means, political connections and influence to secure a license and identify potential lands. Yet, the entire process that must be followed to obtain the requisite permits to mine on a small scale in Ghana appears, in the spirit of *A Strategy for African Mining*, designed for a prospective investor or entrepreneur with background similar to those individuals mentioned above. The stories shared by other miners, Executive Members of the Association and even some government officials during interviews explain why most of Dunkwa's miners operate without a license; as do the experiences of the aforementioned operators, all of whom credited their wealth and contacts in government with their success in securing the necessary permits and permission to mine.

On the issue of licensing, even when, as one small-scale miner put it, '[you are willing] to give a dash [i.e. a bribe]' to people to expedite the process,[15] the entire procedure of obtaining a license is still difficult. This is by no means a recent phenomenon. Reports began to surface at the beginning of the century – at a time when the gold price was a mere fraction of what it is today – that the costs and bureaucracy were inhibiting the formalization of ASM in Ghana. This included a study by a government official (Ntibrey, 2001), who concluded, based on his experiences as a Minerals Commission district officer in the gold-rich town of Tarkwa, that 'the licensing procedure [in place for Ghanaian small-scale gold miners] is virtually long which discourages some prospective concessionaires from pursuing their licenses and thereby regularizing their operations' (p.65). Hilson and Potter (2003, 2005) provided further evidence in support of this claim, sharing detailed accounts of individual miners' struggles to secure and pay for licenses.

The procedure that must be followed to secure a license, enshrined in law in 1989 when small-scale gold mining was officially legalized in Ghana, is outlined by Aryee et al. (2003), who were coincidentally also Minerals Commission employees at the time of writing. It begins with prospective licensees, who may only be Ghanaian nationals aged 18 years or older, first submitting 10 copies of a completed small-scale mining application form, along with accompanying site plans of the proposed mining area, to the local small-scale mining district centre, in this case, the Dunkwa office. An inspection report is then forwarded to the District Chief Executive of the political district in which the activity is intended to be undertaken. Following the issuance of an Environmental Impact Statement (EIA) from the Environmental Protection Agency (EPA) and payment of the requisite fees, the application is forwarded to the

Minister of Mines for approval. If approved, an agreement is forged between the applicant and the Government of Ghana, after which the signed documentation is taken to the Chief Inspectorate of Mines, who awards the official licence to work on the allocated parcel of land; licences are subject to renewal after 3–5 years, depending on the concession size.

The problem, however, is that since these papers were published, rather than simplifying the process, the government seems to have made the process even more complex, requiring even more signatures than before. One small-scale miner offered a particularly condemning opinion during an interview:

> Process is very cumbersome and long, and is encouraging illegal mining, and if it takes six months, they will start mining [illegally]…Starting from the district, spends too much time there…Minerals Commission sends to Ministry…I wish the Minerals Commission makes the decision. The CEO there should have the authority to make a decision on licenses because it goes to the Ministry of Lands and Natural Resources and it can sit there for months.[16]

Moreover, it has gotten more costly to obtain a license. The fees that must now be paid are exorbitant, and include payments for assembling detailed surveying plans, which, according to the small-scale miners interviewed, cost on average GH₵1000 (approximately GH₵800 for the maps and GH₵200 for a licensed surveyors signature) *before* the relevant Minerals Commission district officer can be approached; a GH₵100 Application fee, GH₵250 Processing fee and GH₵550 Consideration fee; and the need for the Minister of Lands and Natural Resources to sign-off on the application, a step that can take many months.[17] At a time when even the donor community is now describing the industry's participants as 'poverty driven', it is rather alarming that the Government of Ghana is *increasing* costs, and not following a country such as Guyana which, by eliminating permit fees and focusing on properly taxing operators, has managed to reduce informal mining significantly.

Perhaps even more disconcertingly, the well-documented battles prospective licensees have waged against policymakers to simplify what should be a straightforward registration procedure has attracted a host of grassroots-level actors, including traditional leaders, landowners and even local government officials. Even though the law vests ownership of minerals in the president on behalf of the citizenry, and does not require the prospective permit holder to pay compensation or to deal with anybody other than regulators, these individuals have taken advantage of a low level of government motoring, demanding costly payments before 'formal' planning can proceed. All of the licensed small-scale miners interviewed reported having paid the equivalent of thousands of US dollars to a suite of actors once the boundaries of their concessions had been determined. The troubles endured by 'Fergus' perhaps best underscore what hurdles must overcome before, as he put it in an interview, in reference to when a prospective licensee can begin to consider transitioning to the formal economy, 'the process starts'.[18] The payments he has reportedly made included: a GH₵20,000 to the Dunkwa chief, and occasional, follow-up 'dashes'; GH₵4000/acre in compensation to cocoa farmers for their plots; and a GH₵1000 'dash' to a local government official at the District Assembly. Other licensed operators confirmed having to pay similar exorbitant amounts of money before they could start the application process for their licenses. One clarified that only '*if* you're resourced enough, it [the awarding of a license] could take one and a half months'.[19] If not, explained another, '[to] fetch documents on your land... [you will] take that to the municipal but because of the bureaucracy, you are told to go here, go there… [because] Money is the sole driver'.[20] If unable to expedite the process with finance, an Executive Member of the Association added, 'When papers are sent to the Minerals Commission, sometimes you [can] wait for two-three years before you make a decision [so[why are we bothering ourselves with that?'[21]

This leads to the second issue of concern: the availability of land. The broad consensus among interviewees was that, in line with points raised by a number of scholars to date (Hilson and Potter 2003, 2005; Tschakert and Singha, 2007), land is in short support for small-scale mine licensing because, as explained, of the priority given in sub-Saharan Africa to developing – and in the case of Ghana, rejuvenating – large-scale, foreign-controlled large-scale mineral exploration and extraction activities. Since the turn of the century, the situation has gotten progressively worse in Ghana: a concessions map, assembled from Minerals Commission data, presented in Cuba et al. (2014) shows that approximately one third of the country's land or in the range of 80 percent of its gold-mineralized territory is now in the hands of prospecting and mining companies. Prospecting licenses cover most of this land: according the *Minerals and Mining Act, 2006* (Act 703), holders are entitled to possess 'a block or a number not exceeding 750 contiguous blocks [or 157.5 km^2] each having a side in common with at least one other block the subject of the application' (Section 34(3). Although licensees are only permitted to hold on to their licenses for a maximum period of three years and, if granted renewal, must 'surrender not less than half the number of blocks of the prospecting area so long as a minimum of one hundred and twenty five blocks remain subject to the licence' (Section 38(1)), the broad consensus among the small-scale miners and Association members interviewed is that the government holds on to expired concessions for other companies.

The *Minerals and Mining Act, 2006* (Act 703), unlike its predecessor, provides a platform for transferring mineral titles under Section 88, which stipulates that 'A licence granted under Section 82 (1) may be transferred only to a citizen and with the consent of the Minister [of Lands and Natural Resources]'. The miners interviewed, however, seemed to have little confidence in this ever happening. One individual summed up the mood among operators, who generally fault the government for not pressuring large-scale operators to release unused portions of their concessions. He explained that, 'To me, the Minerals Commission is paying so much attention to the big mining companies than the small-scale mining because they don't have numbers to look at the small-scale and monitor them'.[22] Another echoed these sentiments, stating that, because of the government's unwillingness to make available adequate land, 'As for that one (license), it is very tedious [because] Normally, they [the government] say you just go to the district office [of the Minerals Commission] but it is not like that'.[23] Even some of the local policymakers consulted were in agreement:

> Large-scale miners not willing to release their large-scale areas – sometimes, small-scale miners come to my office to get a license. And I say it's in a large-scale area, so can't do anything. Sometimes, they could pressure them, to release them [but they don't].[24]

The recent efforts made by the government to make land available for small-scale mining have done little to inspire prospective licensees. Approximately a decade ago, the Minerals Commission began 'blocking out' areas for licensed ASM activity. The exercise, however, commenced with the demarcation of areas which had not been properly prospected and occasionally, lacked economic gold deposits altogether (Hilson et al., 2007). Policymakers continue to 'block out' areas but have generally waited for prospecting licenses to expire before taking action, as opposed to proactively prospecting and reserving plots for ASM (Maconachie and Hilson, 2011).

The situation is Dunkwa is particularly dire, a reason why one miner claimed in an interview that '[of the] 1000 applications [for a small-scale mining license] here sent to Accra… only 10 to be process'.[25] Most of the frustration centres on the government's handling of Dunkwa Continental Ltd., a now-defunct Canadian-based gold mining company. In 1994, Dunkwa Continental secured the rights, for 15 years, to mine the Dunkwa concession previously managed by the State Gold Mining Corporation following its divestiture. It quickly emerged, however, that the company had little interest in mining gold and fulfilling its promises of contributing to local economic development.

Management rather began exploiting loopholes in legislation to engage in other economic activities on the concession. Most importantly, the company's occupation of the concession prevented prospective small-scale mine operators – many of them former State Gold Mining Corporation employees – from securing licenses to work the alluvial deposits along the River

Offin. A miner reflected on what seemed at the time to be an extremely precarious situation for Dunkwa's small-scale operators:

> In those days, we were mining with our hands, pick axe…these type of things. Those days, you only had to pay the farmer, some small chiefs. Dunkwa Continental had almost every land on the river but were not mining. They started planting paw paw and cocoa…so, they were fighting with us. 2004, you started to apply to the Minerals Commission but we were told these areas were the bonafide property of Dunkwa Continental…[26]

The Minerals Commission did eventually extract the concession from the company in 2007, following a court hearing. But whilst some sections of the Dunkwa concession have been successfully 'redistributed', following the aforementioned cumbersome licensing process, to licensed small-scale miners, the Commission has also, rather inexplicably, awarded other portions to international companies, once again revealing its large-scale 'bias'. Notable among these was Vancouver-based Asanko Gold, which, almost immediately after the seizure of the Dunkwa lease, was awarded a 'new prospecting license…in two parts, known as the Gyimigya and Dunkwa and cover 8.20 and 26.26 sq km respectively… [and that] the new property covers a part of the former 390 sq km Dunkwa Continental Mining Lease' (Asanko Gold, 2008).

Why is the government continuing to award sections of land to international mining companies that are more suitable for ASM activity? The exercise should start with reserving areas containing alluvial gold deposits which companies are generally not interested in for small-scale operators. A shortage of available plots, along with an overly-complicated and economically-burdensome licensing process, have become the hallmarks of small-scale mining in Ghana. The informality these dynamics have produced – poverty-driven operators attempting to manoeuvre in a landscape regulated by a policy framework designed for opportunistic entrepreneurs – reinforces the central arguments of the *Legalists*. An executive member of the

Association, visibly frustrated over what appears to be government's general lack of interest of the struggles of *galamsey* operators and committing the necessary time and resources to formalize their activities asked, in an interview, 'If you have a big sheep and a small cow, why can't you have both in the same room, small-scale mining and large-scale mining?'[27]

The next section of the paper reflects critically on the implications of the pedestrian pace at which the Government of Ghana has addressed ASM concerns and the sector's protracted 'informalization'.

5. Discussion: Further Reflections on Informal ASM Activity in Ghana

The failure of the Government of Ghana to overhaul licensing procedures and land use policies to better reflect the realities on the ground has prevented ASM operators from transitioning fluidly to the formal economy. Continued policy treatment of ASM as an industry that is populated by entrepreneurs, and the implementation of regulatory structures that reflect this belief, has had significant consequences.

First, it has stifled the legalization of operations, and by confining most operators to the informal economy, fuelled the expansion of environmentally-degrading, unsafe and socially-deplorable informal operations. In the process, however, the 'expressions' of the sector's informality have become increasingly unrecognizable and unpredictable. The arrival of masses of Chinese 'gold seekers' is the latest development that has drawn attention because, as explained, of their 'visibility'. The Government of Ghana, through its Task Force, has committed to rounding up all foreigners, in particular, Chinese nationals but has not taken the time to understand the context in which they arrived in Ghana. Hilson et al. (2014) speculated that the Chinese are, contrary to media and government reports, playing an important – and perhaps indispensable – role in the country's ASM sector. The present research confirmed that this is, indeed, the case.

Most importantly, they are, as one local government officer made clear in an interview, 'providing money for investment'.[28] This is crucial because '[the] government is unwilling to partner [with miners] because too risky',[29] and 'because banks are not prepared to give you loans, and think that the job is too risky'.[30] Moreover, as noted, the Chinese are introducing new technology, the economic impact of which cannot be overstated. A licensed small-scale miner reflected on the impact excavators in particular have had on his concessions, explaining that 'these days, when you use [just] manpower, it takes too long – 15 days to get the gravel [but[Chinese brought technology and show that it could be done [quick]'.[31] Finally, the Chinese are providing jobs, largely because they have the financial means to do so. The same miner explained that 'Ghanaian engineers [are] hired to work with the Chinese, paying GH₵2000/month', whilst general labourers are being paid daily, fed and clothed. For operators who are dependent on corrupt middlemen for finance, the Chinese, who agree to pay employees and share ore and profits with labourers, are an extremely appealing alternative source of economic support.

In short, whereas the blueprint for ASM formalization in Ghana is not 'pro-poor' and has failed to catalyze development, the Chinese, as one small-scale miner explained, 'put a lot of money into the economy: gold production increased, were selling gold in China, hotel patronizing [in Ghana], bought food and fuel'.[32] In the case of Dunkwa itself, despite the media buzz, the popular view, a local MP clarified in an interview, is that in the absence of government support for ASM, 'I must say, in one way or another, they [the Chinese] have managed to help some of the communities [because] when you look around Dunkwa here, there are several buildings they built, and people were getting money into their pockets because markets were booming, and whatever you make, you will sell at the end of the day and make your daily bread'.[33] The broad consensus among interviewees was that the Task Force, which has systematically targeted the removal of Chinese nationals from sites, has, by removing the only source of finance in ASM communities, exacerbated hardship.

Second, the *laissez-faire* approach taken to legalize ASM, and the inexplicable failure of the Government of Ghana to modify regulatory, institutional and policy frameworks to be more 'operator friendly', has, as reported earlier, empowered a number of actors whose new-found influence promise to make formalization of ASM even more difficult. Heading the list is the country's traditional leaders. The problem, explained one small-scale miner in an interview, is that 'most of the chiefs think the land belong to him, and they permit people to mine, which is very illegal'.[34] In fact, government monitoring in Dunkwa was observed to be so woefully inadequate that , as one small-scale miner put it, 'a chief who claims he owns the land can do whatever he wants'.[35] As illustrated earlier using the case of 'Fergus', with land in short supply, when left unchecked, chiefs are able to command considerable amounts of money before an aspiring licensee can even start completing paperwork. Moreover, as the following passage suggests, chiefs, along with the landowners they mobilize, seem to be profiting enormously from individuals who are operating informally, particularly those in partnership with Chinese nationals:

> According to Ghana's law, we are illegal…We moved here because of production. We paid the land, paid the farmers [on average] GH₵8000/acre for cocoa farm, GH₵4000 [for some] though some as high as GH₵15,000 plantain/cassava per acre and for 'free' land, GH₵2000/acre.[36]

Ghana's regulators, however, seem unmoved by mounting concerns over the bribes paid to chiefs at the site level. In fact, it is unclear where the Government of Ghana stands, at present, on the issue of ASM formalization on the whole. Despite being the world's 10th largest producer of gold, the country still does not have a national mining policy in place. It would appear, however, that despite the evidence which points to inappropriate regulatory structures fuelling the growth of *galamsey* activity, even with new management at the Minerals Commission, the modification of laws and policies for ASM remains a low priority.

If policymakers were, indeed, genuinely concerned with the overabundance of illegal mine operators in the country, they could have made simple changes many years ago to incentivize the formalization process, beginning with the streamlining of government agencies. For example, why does the Minerals Commission, which has waged a war on *galamsey* operators and demand that they obtain licenses, regardless of their circumstances, only engage with individuals who are in a possession of a license, when the Precious Minerals and Marketing Corporation (PMMC), a buying agency established by the government in 1989, purchases gold indiscriminately from *both* legal and illicit miners? The network of PMMC licensed buyers and sub-buyers extends to every corner of the country where small-scale gold mining takes place. But whilst this innovative system, which provides competitive rates to buyers, puts the government in an excellent position to capture a large share of gold mined on a small-scale, the willingness of PMMC to purchase mined product from *both* licensed operators and *galamsey* sends a misleading message to the public. In the fight to formalize ASM in Ghana, is it not necessary for the goals and actions of the Minerals Commission and PMMC to be harmonized?

Moreover, why, as pointed out over a decade ago (Hilson, 2002), must a prospective licensee complete an Environmental Impact Statement (EIS), which is short, nondescript assessment, for the EPA? As one small-scale miner explained in an interview, the 'biggest problem lies with the EPA [because] to get the EPA permit is very difficult',[37] at times taking 3-4 months. But why has an EIS, coordinated by government officials *outside* of the Minerals Commission, which again, is empowered to assess and award small-scale mining licenses, been included in the registration process in the first place? During an interview with a senior official at the Ministry of Environment, Science, Technology and Innovation, the government body within which the EPA falls, it was explained that it was imperative for EPA officials to be involved in the licensing process because '*Galamsey* people shift from one place to the other and the environmental disturbance can be expanded by just one person or group of people'.[38] Apart from the introduced EIA, however, the EPA has no regulatory responsibilities for ASM. If the

Commission was determined to reduce the assessment times for licenses, it would remove the externally-assessed EIA from the process altogether, or follow through with what its management has contemplated doing for a number of years: installing an EPA 'satellite desk', specifically to assess EIS permits, at its headquarters in Accra.

Both the Commission and the Ministry of Lands and Natural Resources seem more concerned with establishing a new category of 'medium-scale' activity and enshrining it in legislation, presumably convinced that such a move – or what is referred to here as a policy of 'forced mechanization' – is the most effective policy response to the mounting illegal mining activity in-country. It is unclear, however, how this would 'streamline' or 'sanitize' the sector, if at all. Many of the unregistered miners and executive members of the Association interviewed voiced concerns about these operators stiffening further competition for land, therefore making licensing even more challenging. One stated, quite pointedly, that 'They [the government] want to take small-scale away from us and so you set up medium-scale, why?...You want to take everything away?'[39] The move to 'create' a small pool of taxable, medium-scale operators, however, aligns perfectly with the government's preference – or unstated policy – of nurturing further its export-led mining economy which, at present, is populated almost exclusively by foreign multinationals. But does the government genuinely believe that the support galvanizing for small-scale mining is a sufficient 'carrot' to entice individuals to pursue a license, despite the hurdles involved?

Progression to 'medium-scale' is unrealistic for most licensed small-scale miners, let alone *galamsey*. In line with the Minerals Commission's vision, the financial support now available for ASM at a host of local finance institutions can clearly only be accessed by the type of entrepreneurial, export-focused medium-scale miner the government is concerned with further empowering and assisting. The following account provided by a manager at an Accra-based bank underscores the realities of the ASM lending facility in place, specifically how out-of-reach it is for poverty-stricken individuals struggling to get a license and who are being marginalized by the state. Few, if any *galamsey*, could possibly meet the required terms:

> We gave GH₵400,000 for two excavators in 2011, at interest of six percent per month, for six months…Areas in Tarkwa. Miner came with a license from the Minerals Commission…Used the excavator as collateral, and there was a guarantor.[40]

Another confirmed that costs of 'mechanizing' are, indeed, prohibitive, explaining that 'For leasing, first you use the machine as collateral slightly used machine (US$120,000-US$150,000), then we add a margin of 20 percent and then transfer ownership to them'.[41] In fact, of the miners interviewed who have embraced the government's implicit call for 'forced mechanization', most admitted to having to use the Chinese, with their wealth and expertise, to achieve this. One miner explained in an interview that licensees are unable mechanize on their own. In his particular case, he explained that 'we decided to get the Chinese a concession, and then you get the engineers on site [but] sacked Chinese after their knowledge for three years'.[42] Each licensed small-scale miner and likely future medium-scale permit holder, however, is seeking to maximize their number of claims, concerned only about maximizing profit and generally disinterested in helping competing *galamsey* formalize their activities. Whilst the Government of Ghana has, in recent years, repackage its rhetoric on ASM, appearing to be more cognizant of the sector's association with poverty, it continues to show interest in almost exclusively supporting the entrepreneur, regardless of the scale of operation. But attempts to transform ASM into a sector it could never possibly be runs the risk of creating an even more imbalanced industry and – reinforcing points raised at the outset – intensifying what are already heated tensions between the country's miners.

Perhaps the question that should be asked about ASM in Ghana and sub-Saharan Africa is: do policymakers, operators and other stakeholders *want* to formalize the sector? The *Legalist* school and the formalization debate more broadly is premised upon the view that movement from the underground economy is a key to empowering disadvantaged groups and improving their quality-of-life but formidable barriers to entry prevent this from happening. In the case of Ghana's ASM sector, permitting fees and bureaucratic registration processes, along with a shortage of available land, are, indeed, discouraging operators from securing a license, in turn fuelling the growth of the *galamsey* economy. But the explanation for this informality seems to be far more nuanced. Whilst the 'illegal' miners interviewed recognize the importance of a license, few were confident of it being able to provide security of tenure regulators claim it provides, drawing attention to the recent behaviour of the Task Force. Moreover, with industry support catering more to the affluent, well-connected entrepreneurs, many did not seem to see what gains could possibly be made by spending time and resources navigating the bureaucracy to get a license. On the one hand, these miners are forced to pay a series of bribes to a range of local actors. In addition to local chiefs and landlords, as one unlicensed operator hinted in an interview, there are a series of government employees which demand payment from the *galamsey* miner:

> I pay a tax of GH₵1000 to the District Assembly per excavator because we are illegal and the only way to protect our machines. Policemen [are] coming now, collecting thousands of *cedis* in bribes. This is the only way we buy the cover from them…[43]

On the other hand, despite having to endure a constant siphoning of their earnings, the unlicensed miners explained that as *galamsey*, they are able to feed their families, pay their children's school and university fees, and even accumulate capital to pursue other business ventures. Thus, whilst perhaps not the ideal setup, the 'informalized' nature of Ghana's ASM sector provides some economic stability in what has become an increasingly-unpredictable financial landscape.

The second, and perhaps more important, part of the equation is the momentum – or, looking at it pessimistically, lack thereof – from other segments of society to formalize ASM.

The obvious answer why is there is too much at stake for there to be any major change: that countless people are benefiting from the existing setup. In addition to guaranteeing miners' survival, a sizable *galamsey* economy benefits landowners, and local actors such as the police, army officials and various local government officials. There are also scores of Ghanaian Chinese-speaking agents who have surfaced, each charging fees process the applications of asylum-seeking 'illegal immigrants'. One, Bernard Ntrey, whose company, Hansol Mining, has been accused of partnering with Chinese nationals to carry out illegal mining, has 'become their [Chinese] international contact, [is] now the organizing secretary for NPP in the Ashanti Region….[and[Formed Ghana-China Friendship, so any one who comes in, has to go to him'.[44]

The chain of beneficiaries, however, extends beyond the operation level. As an executive member of the Association explained in an interview, despite the negative coverage of *galamsey* in the press, 'Ministers, MPs heavily involved, chiefs assembly men heavily involved, you name them…You name them, they are involved because it is lucrative'.[45] One local government echoed these sentiments in an interview, reporting that, 'You pick up Chinese miners, and then you see calls coming from Accra [on your phone], the person saying "you know, young man, I see you pick up Chinese, these days you need to exercise patience"'.[46] If, indeed, high-ranking government officials are involved in *galamsey*, as is implied, then efforts to eradicate activity may simply be cosmetic, or at best, futile.

Preserving the *status quo* also means that chiefs who, as noted, extract payments from both licensed and unlicensed operators, are preoccupied. With limited pressure from government, these chiefs, explained one small-scale miner in an interview, are free to continue 'stopping an excavator in the middle of the road, demanding 5000 *cedis*'.[47] This seems to bode well for officials at the Minerals Commission and Ministry of Lands and Natural Resources who have never been comfortable confronting traditional leaders about their engagement in *galamsey* activity and extracting payments from operators. With these chiefs occupied, however, government officials are free to continue promoting a model of export-led mining growth, including the nourishment of elite small-scale and medium-scale operators, for the purpose of collecting taxes.

6. Conclusion

Confining ASM operators to the informal economy can have major consequences. As explained at the outset, doing so has spawned an industry that has a sizable environmental footprint, and with work conditions that are often socially-deplorable, unhygienic and unsafe. These 'problems', however, which the general public and policymakers repeatedly draw attention to in their critiques of the sector, are principally due to its informality and, by extension, the inability of operators to access the suite of support services only available to permit holders. By focusing on ASM's 'negatives' and tackling unlicensed activity with force, and at the same time, not fully embracing the sector's 'positives', such as wealth creation and employment generation, host governments are doing their citizens a major disservice. Nowhere is this more the case than in sub-Saharan Africa, one of the most impoverished regions in the world, where ASM, despite mostly taking the form of environmentally-destructive, unsafe and unlicensed activity, has enormous potential, if supported, to provide a much-needed platform for economic development.

The transformation of ASM into a more sustainable enterprise – specifically, an industry which better manages its pollution, reclaims 'spent' land, and adequately addresses its social 'ills' – begins with formalization. This paper has explained why this has proved so elusive in sub-Saharan Africa, focusing on the case of Ghana. Here, much like elsewhere in the region, a shortage of land, along with bureaucratic licensing systems, has prevented most small-scale mine operators from transitioning to the formal economy. This stems, in part, from the government prioritizing the development of mechanized large-scale mining through foreign investment but mostly policymakers and donors continuously working to transform ASM into something that is not. Specifically, findings from research confirm that there is a significant discrepancy between what the Government of Ghana *believes* it is formalizing – namely, a sector populated by rogue, opportunistic entrepreneurs – and the largely poverty-driven driven ASM industry that actually exists. Until these issues are adequately addressed, and more 'operator-friendly' policy frameworks are instituted, informal ASM activity will continue to expand in sub-Saharan Africa and elsewhere in the developing world.

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Figure 1: An Overview of ASM in sub-Saharan Africa

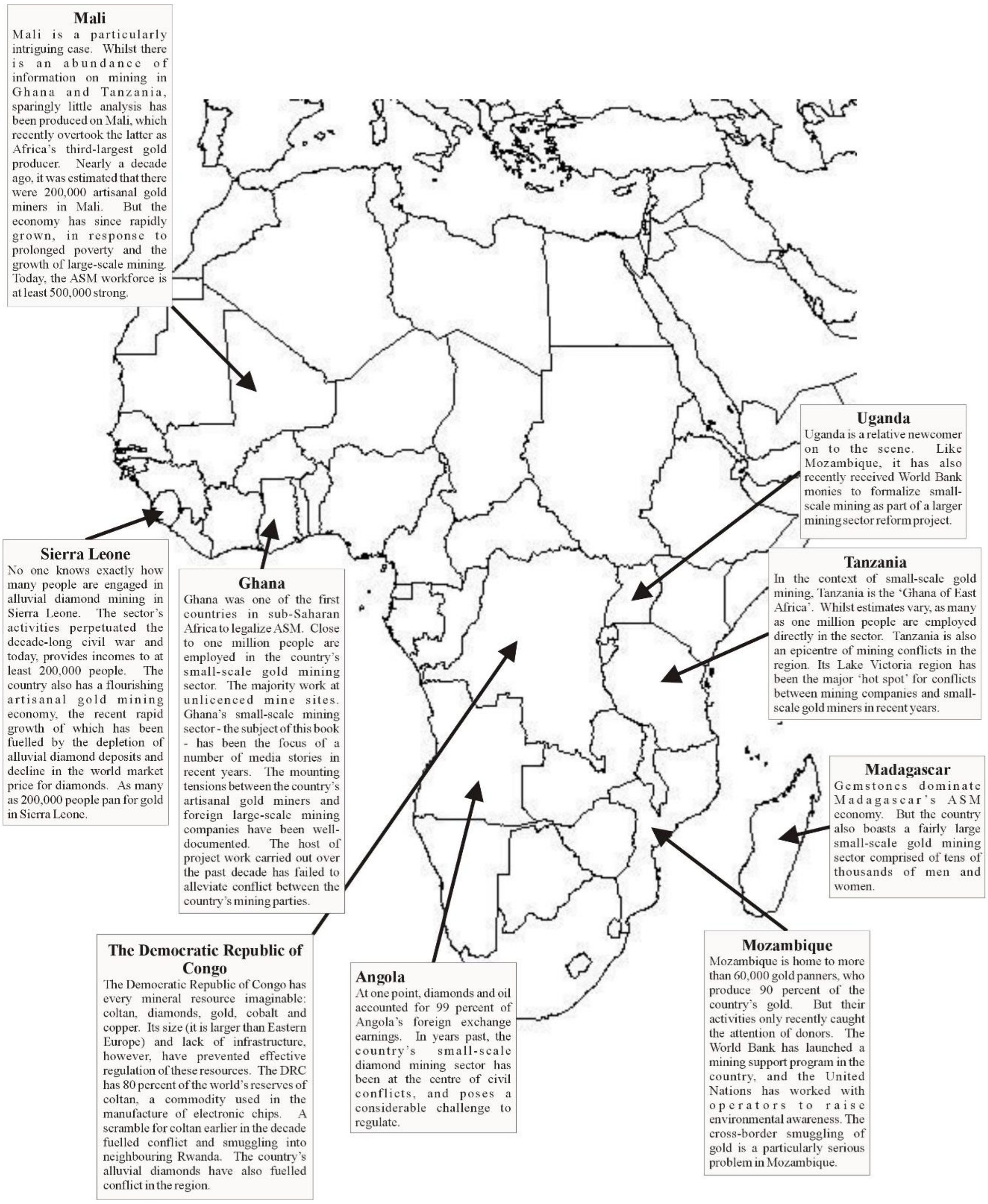


Figure 2: Map showing Dunkwa, the study location

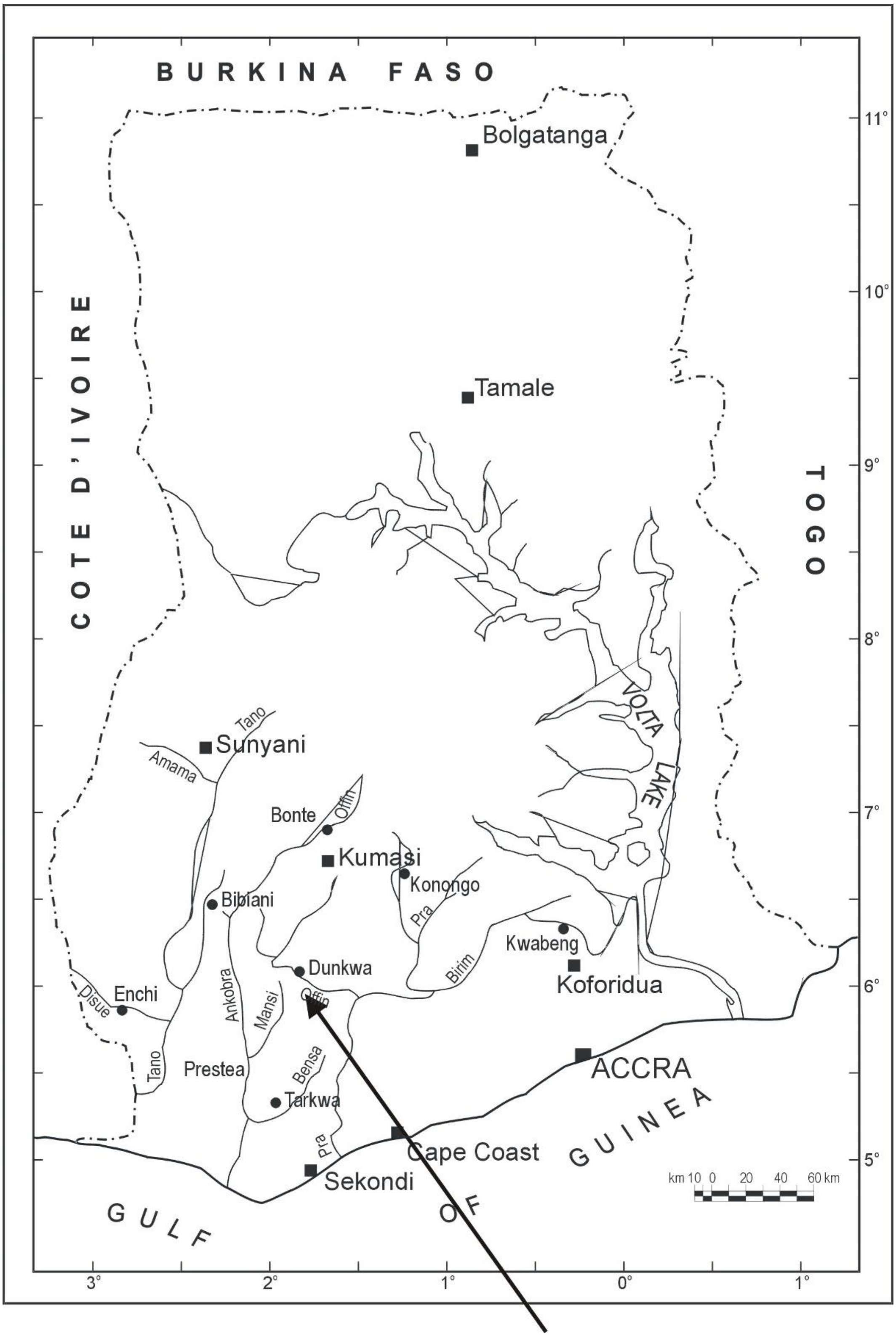
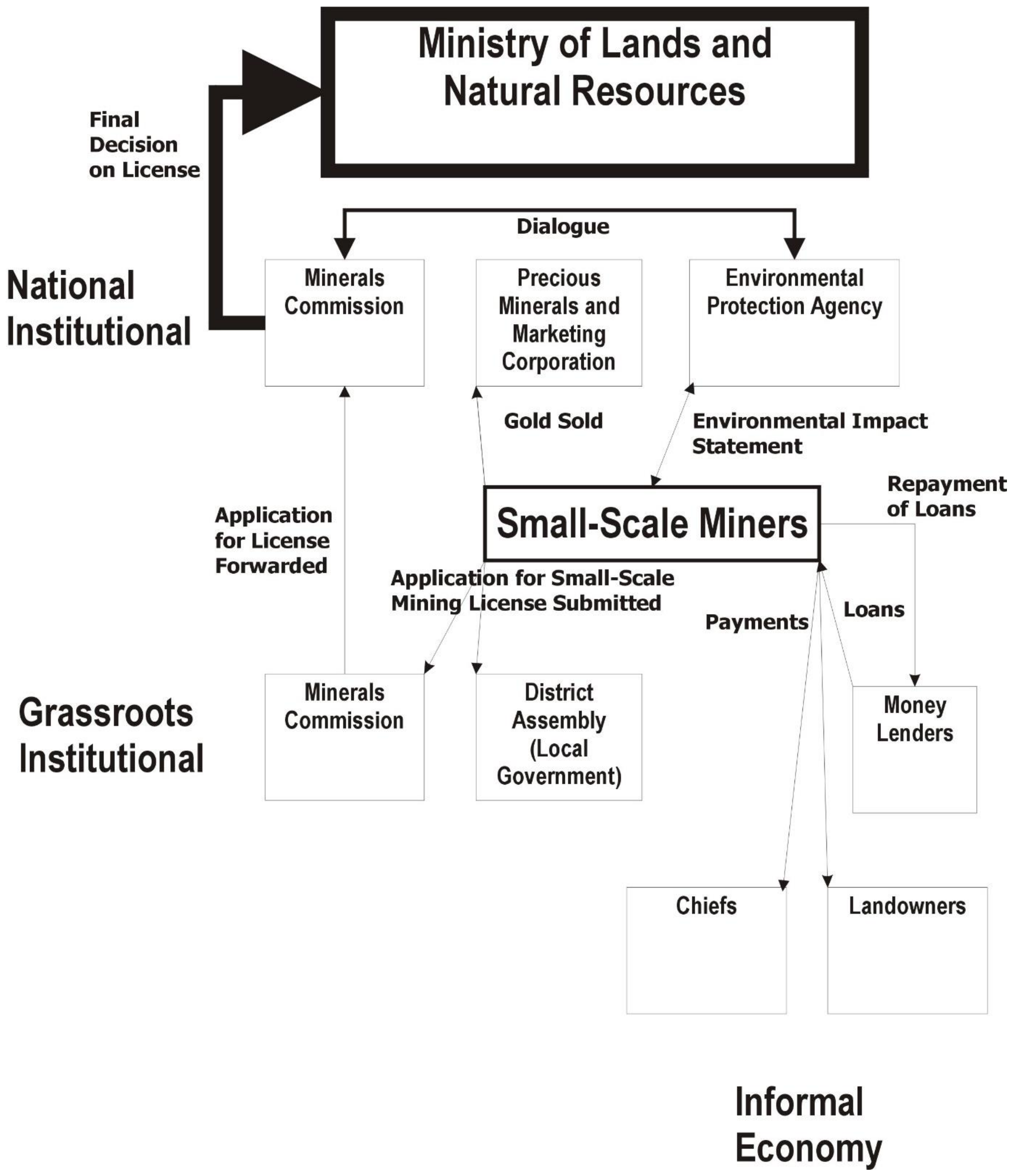


Figure 3: Basic stakeholder map of ASM in Ghana and relationships between actors



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Endnotes

[1] The literal translation of which is 'gather them and sell'.
[2] Interview, Government Official, Accra, 10 February 2014.
[3] Interview, Government Official, Accra 17 April 2014
[4] Interview, Government Official, Accra, 5 March 2014
[5] Interview, Small-Scale Miner, Dunkwa 14 February 2014.
[6] Interview, Small-Scale Miner, Accra 12 February 2014
[7] Interview, Small-Scale Miner, Dunkwa 6 February 2014.
[8] Interview, Executive Association Official, Dunkwa, 4 February 2014
[9] Interview, Small-Scale Miner, Accra 12 February 2014.
[10] Interview, Financier, Accra 12 February 2014.
[11] Interview, Small-Scale Miner, Dunkwa 14 February 2014
[12] Interview, Small-Scale Miner, Accra 12 February 2014.
[13] Interview, Government Official, Accra 10 February 2014.
[14] Interview, Small-Scale Miner, Accra, 12 February 2014.
[15] Interview, Small-Scale Miner, Dunkwa, 14 February 2014.
[16] Interview, Small-Scale Miner, Accra, 12 February 2014.
[17] Approximate currency conversion is US1$ to GH₵3.24.
[18] Interview, Small-Scale Miner, Dunkwa 14 February 2014.
[19] Interview, Small-Scale Miner, Accra, 8 February 2014.
[20] Interview, Executive Association Member, Dunkwa, 3 March 2014
[21] Interview, Executive Association Member, Dunkwa, 4 February 2014.
[22] Interview, Small-Scale Miner, Accra, 12 February 2014.
[23] Interview, Small-Scale Miner, Dunkwa, 14 February 2014.
[24] Interview, Government Official, Dunkwa, 3 February 2014.
[25] Interview, Small-Scale Miner, Dunkwa, 3 February 2014.
[26] Interview, Small-Scale Miner, Dunkwa, 14 February 2014.
[27] Interview, Executive Association Member, Dunkwa, 3 March 2014.
[28] Interview, Government Official, Dunkwa, 3 February 2014.
[29] Interview, Small-Scale Miner, Dunkwa, 6 March 2014.
[30] Interview, Executive Association Member, Accra, 4 March 2014.
[31] Interview, Small-Scale Miner, Dunkwa, 3 February 2014.
[32] Interview, Small-Scale Miner, Accra, 12 February 2014.
[33] Interview, Local Government Officer, Dunkwa, 4 March 2014.
[34] Interview, Small-Scale Miner, Dunkwa, 3 February 2014.
[35] Interview, Executive Association Member, Dunkwa, 3 February 2014.

[36] Interview, (Chinese) Small-Scale Miner, Dunkwa, 13 February 2014.
[37] Interview, Small-Scale Miner, Dunkwa, 4 February 2014.
[38] Interview, Government Official, Accra, 25 July 2014.
[39] Interview, Small-Scale Miner, Dunkwa, 3 February 2014.
[40] Interview, Bank Manager, Accra, 12 February 2014.
[41] Interview, Small-Scale Miner, Accra 12 February 2014.
[42] Interview, Small-Scale Miner, Dunkwa, 3 February 2014.
[43] Interview, Small-Scale Miner, Dunkwa, 13 February 2014.
[44] Interview, Executive Association Member, Dunkwa, 5 February 2014.
[45] Interview, Executive Member Association, Dunkwa, 3 February 2014.
[46] Interview, Local Government Officer, Dunkwa, 2 February 2014.
[47] Interview, Small-Scale Miner, Accra, 13 February 2014.

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