Why Is Illegal Gold Mining Activity so Ubiquitous in Rural Ghana?*

Gavin Hilson and Clive Potter**

Abstract: Notwithstanding its prolonged existence, little research has hitherto been undertaken to determine why illegal artisanal and small-scale mining is a widespread phenomenon in the developing world. This paper profiles the case of Ghana, where clandestine gold mining activity is now ubiquitous throughout many rural areas. Despite having passed a series of industry-specific laws and regulations, and implementing an array of support services under the guidance of Gesellschaft Technische Zusamme

barkeit (GTZ) and the World Bank, the Ghanaian government is widely regarded as having failed in its attempts to regulate the sector and bring it into the public domain. Combining findings from the literature, indigenous reports and government documents, with feedback from interviews with key government personnel and miners, this paper attempts to explain why a disproportionate percentage of resident artisanal and small-scale gold miners continue to operate illegally. Marked improvements can only be achieved in this area if the government prospects and demarcates land for small-scale gold miners; improves the quality of industry support services; and re-skills miners for work in other professions.

Résumé: Malgré sa existence prolongée, peu de recherche a été jus-
qu’ici entreprise pour déterminer pourquoi l’artisanal illégal et l’exploita-
tion de petite taille est un phénomène répandu dans le monde en voie de développement. Cet article profile le cas du Ghana, où l’activité d’ex-
traction d’or clandestin est maintenant omniprésente dans tous beau-
coup de secteurs ruraux. En dépit de avoir passé une série de lois et de ré

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glements industrie-spéciﬁques, et mettant en application un choix de services de support sous les conseils de GTZ et de la banque mondiale, le gouvernement ghané en est largement considéré comme aprè s avoir été échoué dans ses tentatives de régler le secteur et de l’introduire dans le public domain. Combinant des résultats de la littérature, les rapports indigènes, et le gouvernement documente, avec la rétroaction des entrevues avec le personnel de gouvernement et les mineurs principaux, tentatives de cet article d’expliquer pourquoi un pourcentage disproportionné de l’artisanal ré sident et des mineurs de petite taille d’or continuent à fonctionner illégalement. Des améliorations marquées peuvent seulement être réalisées dans ce secteur si le gouvernement prospecte et délimite la terre pour les mineurs de petite taille d’or; améliore la qualité des services de support d’industrie; et mineurs de re-compétences pour le travail dans d’autres professions.

1. Introduction

In a recent issue of the Daily Graphic, Ghana’s biggest selling newspaper, Dr Paa Kwesi Nduom, the country’s Minister of Economic Planning and Regional Co-operation, is quoted as saying:

‘Considering the per capita incomes of Cote d’Ivoire, Gabon, Botswana and Mauritius, which now stand at $700, $4,000 and $3,500 respectively, Ghana is capable of improving her per capita income considerably if Ghanaians set ambitious targets for themselves and work towards that effect...The country will have to re-double her efforts to raise the per capita income of $400 per annum to $1000 per annum’ (Daily Graphic, 2002).

This summary only hints at the current weakened state of the country’s economy. Presently, most Ghanaians earn subsistence wages for working long, laborious hours. An acute unavailability of jobs nationwide, in turn, has forced many into the streets of Accra and Kumasi — Ghana’s two largest cities — as well as other large towns such as Tamale, Hoe, Ho, Ho, Hoe and Cape Coast. Each of these urban centres is now laden with street merchants catering to both domestic and foreign audiences, and children selling newspapers and fresh water.

The fact that Ghana scored 129 out of 173 countries on the most recent UNDP-commissioned Human Development Index paints a grossly inaccurate picture of the country’s quality-of-life,1 which is in an even more deteriorated state than indicators and matrices portray: its gross national income (GNI) per capita has declined 25 per cent in the past five years, from US$390 to US$290; its illiteracy rate (28.5 per cent)
remains excessive; only one quarter of its 40,000 km of roads are paved, most of which are riddled with potholes; its minimum daily wage has been set at less than US$1; and some 36 per cent of its population does not use quality water sources. Consequently, Ghana is regularly labelled as ‘one of the 25 poorest countries in the world (with) the most impoverished 30% of its population (being) rural dwellers with a mean per capita expenditure of US$186 per annum including the value of home produced food’ (Gyasi, 1996, p. 93). According to the World Bank, some 90 per cent of the country’s people are straddling the poverty line.

In an attempt to escape this poverty, an increasing number of Ghanaians have begun migrating to rural areas (see Table 1 for an overview of the country’s present population distribution), where many are turning to artisanal and small-scale gold mining; the industry holds the promise of immediate economic relief. As Davidson (1993, p. 316) explains, ‘in diverse areas of the world, artisanal mining has become the principal livelihood for millions of miners and their families and the mainstay of local rural economies’. Such is the case in Ghana, where the industry appears to have become a safe haven for poverty-stricken nomadic peoples and seasonal farmers in recent years. Its operators are lured by the prospect of extracting gold, which yields a substantial return on the market.

However, small-scale gold mining is also recognized by the Ghanaian government as a formal sector of industry, which, in turn, necessitates that its operators adhere to a rigid regulatory framework. To register — hence, legitimize — oneself as a miner, one must comply with guidelines stipulated in a series of laws and codes that have been in place since 1989. Moreover, each miner or mining party must secure, from the government, a licence to operate on a designated parcel of land. To facilitate

<table>
<thead>
<tr>
<th>Region</th>
<th>Total population</th>
<th>Rural population</th>
<th>Urban population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western</td>
<td>1,924,577</td>
<td>1,226,159</td>
<td>698,418</td>
</tr>
<tr>
<td>Central</td>
<td>1,593,823</td>
<td>995,418</td>
<td>598,405</td>
</tr>
<tr>
<td>Greater Accra</td>
<td>2,905,726</td>
<td>358,042</td>
<td>2,547,684</td>
</tr>
<tr>
<td>Volta</td>
<td>1,635,421</td>
<td>1,194,337</td>
<td>441,084</td>
</tr>
<tr>
<td>Eastern</td>
<td>2,106,696</td>
<td>1,378,782</td>
<td>727,914</td>
</tr>
<tr>
<td>Ashanti</td>
<td>3,612,950</td>
<td>1,759,885</td>
<td>1,853,065</td>
</tr>
<tr>
<td>Brong Ahafo</td>
<td>1,815,408</td>
<td>1,136,628</td>
<td>678,780</td>
</tr>
<tr>
<td>Northern</td>
<td>1,820,806</td>
<td>1,337,016</td>
<td>483,790</td>
</tr>
<tr>
<td>Upper East</td>
<td>920,089</td>
<td>775,807</td>
<td>144,282</td>
</tr>
<tr>
<td>Upper West</td>
<td>567,583</td>
<td>475,735</td>
<td>100,848</td>
</tr>
<tr>
<td>Total</td>
<td>18,903,079</td>
<td>10,637,809</td>
<td>8,274,270</td>
</tr>
</tbody>
</table>

increased regularization and registration in the industry, the government has provided an array of support services, and has attempted to decentralize relevant regulatory and monitoring activities.

Nevertheless, some 13 years after the legalization of small-scale gold mining, an overwhelming majority of Ghana’s artisanal and small-scale gold miners continue to operate illegally — that is, without licences. Mainly nomadic in nature, ravaging landscapes and quickly abandoning unproductive sites without reclaiming excavated pits and trenches, operators defy regulations, electing to carry out activities in remote areas of the field, well out of reach of authoritative bodies. While many authors have broached the topic of illegal mining in Ghana, few have provided plausible explanations for the proliferation of the industry’s clandestine activity.

The purpose of this paper, therefore, is to examine the reasons why the majority of Ghana’s artisanal and small-scale gold miners are operating illegally. Ghana provides a credible *a priori* case for exploration, as its government has both implemented what appears to be a practical regulatory framework for operations, and has made an effort — under the auspices of various aid agencies — to facilitate increased regularization in the industry. Information extracted from the literature, indigenous consultancy reports and government documents, combined with feedback from interviews recently conducted with key government personnel and miners in the field, is used to explain the reasoning behind the industry’s disproportionate illegality.

The remainder of the paper is organized as follows. Following a brief review of illegal mining and mineral marketing in developing countries, which effectively sets the stage for this discussion, an overview of artisanal and small-scale gold mining in Ghana is presented. Next, the paper examines the main causes of the illegality problem, and prescribes recommendations for improvement. Concluding remarks are then provided.

2. Context: Illegal Artisanal and Small-scale Mining in Developing Countries

It is no coincidence that artisanal and small-scale mining (ASM) flourishes in the most impoverished of countries. Regularly described by the United Nations (UN) and the World Bank as a ‘poverty-driven activity’, ASM provides direct employment to between 11.5 and 13 million retrenched large-scale mine workers, nomads and seasonal farmers worldwide, although the International Labour Organization (ILO) estimates that as many as 100 million rural inhabitants — including dependent family members and secondary tradesmen, such as blacksmiths, merchants and stone polishers — rely upon the incomes
Operators are engaged in the extraction of some 40 different mineral commodities; the majority, however, excavate and process precious minerals and stones, which, by far, have the highest unit values and, therefore, yield the most significant returns.

Some 10–15 years ago, many governments, claiming to have finally recognized the economic importance of resident ASM output, introduced a series of regulations and licensing schemes in an attempt to regularize operations. It marked the first sustained effort to regulate what had traditionally been regarded as an informal segment of industry. While ASM has since grown at an unprecedented rate globally, the now branded ‘illegal’ segment of the sector has expanded disproportionately vis-à-vis the licensed, registered section. More specifically, most artisanal miners have elected to remain unregistered because governments have created procedurally complex regulatory environments, and have failed to provide adequate on-site support and extension services.

In the process of promoting foreign large-scale mine development, governments have almost exclusively ignored the needs of resident artisanal and small-scale miners. Under the guidance of the World Bank and IMF during periods of economic restructuring, authorities began legalizing ASM with the intention of both improving the efficiency of operations and localizing activities. However, little has been done to facilitate the industry’s ‘smooth’ transition into the formal sector, both at the regulatory level, and in terms of support. As a result, ASM has, for the most part, remained haphazard, in the process retaining its largely clandestine image.

In a recent survey undertaken by the ILO (1999), the proportion of illegal mines varied from 5 to 80 per cent among 28 countries that provided feedback; in half of these countries, over 30 per cent of operations were reported as operating illegally. The difficulty in depicting the actual percentage of illegality in the sector stems from the fact that few accurate ASM censuses have been carried out and, of those that have, most are outdated. Figure 1 provides some examples of major illegal ASM regions worldwide.

Illegal mining and illicit mineral marketing activity often go hand-in-hand. Illegal mineral sales are most rampant where there is excessive governmental control of the sector — principally through direct ownership of production and marketing facilities (Kambani, 1995). In most cases, as part of national efforts to collect mineral output from artisanal and small-scale miners, authorities have implemented policies mandating that product is sold to commissioned state agencies at arbitrarily set prices typically well below the actual market rates. A black market begins to develop if the difference between the government and the world...
market prices for high valued mineral commodities exceeds 5 per cent (Noetstaller, 1994).

The issue is further complicated by policies issued by governments stipulating payments for minerals in inflated local currency. As Kumar and Amaratunga (1994, p. 17) explain:

‘The problem concerns illegal mining, which apart from being the direct consequence of poverty and poor supervision by government officials, can also be a result of distorted prices caused by an overvalued currency and/or unavailability of foreign exchange resources. One key characteristic of overvalued currency is that the official exchange rate does not appropriately reflect the prices of goods and services sold in the country...An overvalued currency means that domestic producers receive less by the way of local currency from their export of output than they would if the ‘market-related’ exchange rates were used.’

These authors further note that in cases where near-market prices are paid in inflated currency for product, the payments may be insufficient to
meet a miner’s needs if he/she must pay for purchase of his/her other requirements (e.g. equipment, mercury, etc.) in black market prices. Such is often the case in East Africa, particularly Zambia, Zimbabwe and Tanzania, where devalued currencies have prompted numerous miners to sell gold and gemstones to Westerners in exchange for payment in US dollars and British pounds. Kambani (1995) provides a number of examples of illicit mineral marketing activity, including:

- approximately 50 per cent (US$200-$300 million) of Zambia’s gemstone output;
- more than 80 per cent of Columbia’s emeralds, valued at US$800 million;
- over US$400 million of Zaire’s gold and diamonds;
- 50 per cent of Zimbabwe’s emeralds; and
- some two-thirds of the gold mined in the Philippines.

Recent press releases and newspaper articles help to further underscore the severity of the problem. In East Bengal, for example, there is currently an active coal Mafia being serviced by hundreds of individuals from neighbouring Jharkhland, who, for between Rs. 20 and 40 a day, risk their lives underground extracting coal destined for the black market (Chattopadhyay, 2001). In another example, Tanzania, merchants are notorious for deploying a variety of techniques for smuggling gemstones, including packaging valued goods and then travelling via public transport into neighbouring countries; financing the private transport and delivery of packages of smuggled commodities (which can cost as much as US$400); and by foot, bicycles or pack animals (Phillips et al., 2001).

This paper is concerned with the state of illegal artisanal and small-scale gold mining in Ghana. Since the legalization of small-scale mining in the country in 1989, efforts have been made to regularize resident operations nationwide. The Ghanaian government, working under the auspices of aid agencies — namely, GTZ, the World Bank, and, to a lesser degree, the UNDP and UNIDO — has overseen the construction of seven small-scale mining district support centres; orchestrated the implementation of a series of training programmes for miners; and has undertaken research looking into possibilities for re-skilling miners with the aim of improving their poverty-stricken lifestyles. As a result, Ghana ‘has been acknowledged as a leader in the promotion of small-scale mining enterprises’ (UN, 1996).

However, as many as 85 per cent of the industry’s participants could be operating illegally, as efforts to quash clandestine gold mining activity have, for the most part, failed. Complicating matters is the fact that no accurate ASM censuses are available, which has unquestionably impeded the government’s efforts in identifying, with precise accuracy, the indus-
try’s key perpetrators, and in assessing the severity of the problem overall. Drawing from the literature, indigenous consultancy reports, government documents, and feedback from interviews recently conducted in ASM villages, the paper seeks to explain why, some 13 years after its legalization, small-scale gold mining continues to be a disproportionately illegal activity in Ghana.

3. An Overview of Artisanal and Small-scale Gold Mining in Ghana

Like most sub-Saharan African countries, Ghana has undergone a lengthy programme of structural adjustment (see, e.g., Lall, 1995; Jeong, 1998; Owusu, 2001). As Jackson (1999, p. 283) explains, ‘structural adjustment programmes have been driven by a desire to withdraw the state from industrial production and allow markets to develop’. Ghana’s ambitious Economic Recovery Plan (ERP) was launched in 1983, effectively putting an end to one of the most extended periods of economic stagnation in its history. The ERP particularly emphasized the redevelopment of the minerals industry — namely, the gold mining segment. State-owned mines were privatized, and foreign investment was promoted through a series of newly implemented tax breaks and incentives, including:

- a decrease in the Government’s entitlement (10 per cent) of equity in all new mining ventures;
- a notable reduction in mining tax (from 55 per cent to 45 per cent);
- granting companies a six-year window to pay taxes; and
- a meagre investment allowance of 5 per cent placed during the first year of operation.

Since the launch of the ERP, the country’s mineral sector has grown rapidly. Between 1983 and 1998, as much as US$4 billion was invested in Ghana’s mining industry for mineral exploration, and the expansion and rehabilitation of existing mines. Although not a ‘mineral economy’ per se, mining nevertheless contributes approximately 40 per cent of Ghana’s export earnings. Moreover, gold has become the country’s largest foreign exchange earner, as its production has increased some 700 per cent since 1980 (Figure 2). Following a partial decline between 1980 and 1986, during which output fell from 342,904 oz to 287,124 oz, gold production began to increase steadily, reaching 373,937 oz in 1988 and 429,476 oz the following year. In 1993, output (1,261,424 oz) was more than double that of 1990 (541,408 oz), and, since 1998, has exceeded two million ounces annually. The Ashanti Goldfields Company (AGC)
has long been Ghana’s chief producer of gold, in many years, accounting for as much as 60 per cent of national output. Examples of other important large-scale gold mining companies with operations in the country include Satellite Goldfields Ltd, Gold Fields Ghana, Billiton Bogosu and Dunkwa Continental (see Table 2).

Much overlooked, however, is the fact that Ghana has a flourishing ASM segment. In fact, there is a long history of ASM throughout most of sub-Saharan Africa, the World Bank estimating that as much as 40 per cent of the region’s gold is produced on a small scale. Ghana’s ASM sector generates approximately 8 per cent of the country’s gold, which, as a collective unit, makes it the country’s fourth largest producer behind Ashanti Goldfields Ltd, Goldfields Ghana and Abosso Goldfields. Following decades of unregulated activity, small-scale gold mining was legalized in Ghana in 1989, after the passing of the Small-Scale Gold Mining Law (PNDCL 218). The Law defines a ‘small-scale gold mining operation’ as that which engages in ‘the mining of gold by any method not involving substantial expenditure by an individual or group of persons not exceeding nine in number or by a co-operative society made up of ten or more persons’. In technical terms, however, it

**Source:** Minerals Commission
is defined on the basis of concession size — specifically, as (gold mining) activity that occurs on a land plot no greater than 25 acres, and which can only be carried out by Ghanaian nationals.

Significant revenues have also been generated by the sector. Since 1989, Ghanaian artisanal and small-scale miners have produced over US$300 million worth of gold (Table 3), a commendable feat considering

### Table 2: An overview of large-scale gold mine production (in ounces) in Ghana

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (US$ millions)</th>
<th>Ounces</th>
<th>% Small-scale to total Ghana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>1,154,497</td>
<td>1,355,932</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>1,317,850</td>
<td>1,144,952</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>29,494</td>
<td>87,122</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>300,245</td>
<td>108,657</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>1,002,636</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>


### Table 3: Small-scale gold mine production in Ghana, 1989–2000, based on official statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (US$ millions)</th>
<th>Ounces</th>
<th>% Small-scale to total Ghana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>3.4</td>
<td>9,272</td>
<td>N/A</td>
</tr>
<tr>
<td>1990</td>
<td>6.3</td>
<td>17,233</td>
<td>3.2</td>
</tr>
<tr>
<td>1991</td>
<td>5.3</td>
<td>15,601</td>
<td>1.8</td>
</tr>
<tr>
<td>1992</td>
<td>6.1</td>
<td>17,297</td>
<td>1.7</td>
</tr>
<tr>
<td>1993</td>
<td>11.5</td>
<td>35,144</td>
<td>2.8</td>
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<tr>
<td>1994</td>
<td>34.7</td>
<td>89,520</td>
<td>6.2</td>
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<tr>
<td>1995</td>
<td>48.7</td>
<td>127,025</td>
<td>7.4</td>
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<td>1996</td>
<td>36.0</td>
<td>112,349</td>
<td>7.1</td>
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<td>1997</td>
<td>28.4</td>
<td>107,094</td>
<td>5.9</td>
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<tr>
<td>1998</td>
<td>36.6</td>
<td>128,334</td>
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<tr>
<td>1999</td>
<td>35.2</td>
<td>130,833</td>
<td>5.2</td>
</tr>
<tr>
<td>2000</td>
<td>40.9</td>
<td>145,662</td>
<td>6.2</td>
</tr>
<tr>
<td>Total</td>
<td>293.1</td>
<td>935,364</td>
<td></td>
</tr>
</tbody>
</table>

that operations are renowned for being only 20 per cent efficient. Between 1989 and 1994 alone, 30,000 small-scale miners reportedly produced, and sold to governmental offices, US$68.56 million in gold (UN, 1996). As Davidson (1993) explains, between 1989 and 1993, the 400 properties that had registered under the newly introduced legalization scheme produced over 45,000 oz of gold. Gold output from operations, which are scattered primarily within the south-western regions of the country (see Figure 3), increased nearly 25 per cent during the 1997–99 period, from 3,331 to 4,069 kg (Aboagye, 2000). As Table 3 also illustrates, small-scale gold mine production has increased nearly tenfold in the past decade, from 17,234 oz in 1990 to 107,093 oz in 1997.

The unprecedented growth in production experienced in Ghana’s artisanal and small-scale gold mining sector can be attributed to the acute unavailability of jobs and accompanying poverty nationwide, which, as Dordunoo and Sackey (1997, p. 9) explain ‘is predominantly a rural phenomena’. Although Ghana ranked 129 out of 174 countries in the most recent Human Development Index, there are significant urban and rural disparities nationwide, with the provision of services — including health, water and sanitation — being decidedly poorer in rural communities. Ohene-Konadu (1996) provides a more detailed assessment of the current situation:

‘There is great disparity between the rural and urban areas of Ghana. The rural people are bedevilled with many seemingly insurmountable problems; because of this they have achieved so little. The rural sector provides most of the economic resources of the country and serves as a dwelling place for the majority of the population. Paradoxically, it is the sector which is almost neglected in development policy...In fact official approach to poverty alleviation has been piecemeal and fragmented.’

However, ‘detailed statistics are not needed to indicate that the employment problem is severe and deteriorating in Ghana’ (Baah-Nuakoh, 1996, p. 3). In a country where income per capita is in the range of US$440, and, in rural areas, as little as US$151 (Dordunoo and Sackey, 1997), artisanal and small-scale gold mining is an attractive livelihood strategy. As Yakubu (2002, p. 7) explains:

‘The rush of our youth into illegal mining or galamsey can partly be attributed to the unemployment in the country. According to the Ministry of Labour and Employment (1997), between 150,000 and 200,000 school leavers enter the labour market every year...In view of the low capacities of the public and private sectors to absorb their
Figure 3: Gold producing region of Ghana

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numbers, illegal mining becomes the most attractive alternative because of perceived remuneration they expect to get.’

A small mine worker can earn as much as US$7 each day (Appiah, 1998), which, for a five day working week, amounts to US$1820 annually.

As shown in Figure 4, Ghana’s artisanal and small-scale gold mining sector is comprised of the following two groups of miners: (1) registered operators (the ‘Official System’); and (2) galamsey\(^5\) (the ‘Unofficial System’). Registered operators are those who have been awarded licences by the Government to mine in designated areas (not exceeding 25 acres) for

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**Figure 4: Organization of small-scale mining in Ghana**
a duration of 3–5 years. They often employ between 5 and 20 groups of tributers consisting of 5–10 workers, each of whom excavate ore and process gold. Typically, tributers retain two-thirds of the profits, and the remaining third is given to the concessionaire (Appiah, 1998). The most common equipment utilized at registered sites are basic hand tools, such as picks, axes, sluice boxes and shovels, although occasionally, Honda water pumps, explosives and washing plants are used. The most organized of set-ups have separate ‘stations’ or locations for performing the necessary activities of the gold production process (e.g. crushing, grinding, washing and ore roasting).

The second group of artisanal and small-scale gold miners in Ghana — the main subject of this paper — operate illegally, and are commonly referred to as galamsey. Their nomadic existence is exemplified by the perpetual ‘hit and miss’ nature of their activities. In recent years, many viewpoints expressed toward the galamsey in the local press and within government circles have been derogatory, mainly because the sector has been responsible for significant environmental damages and the recent rises in school dropout rates in various rural areas. It is estimated that as many as 85 per cent of the country’s artisanal and small-scale gold mining operators are, in fact, galamsey, who, for a variety of reasons, have opted to remain unregistered. The purpose of the discussion that follows is to identify precisely why these miners are operating illegally.

4. Causes of Illegal ASM in Ghana

Before examining the specific reasons why the majority of Ghana’s artisanal and small-scale gold miners are operating illegally, it is important to clarify that much of the country’s clandestine mineral smuggling activities has already been eradicated, due in large part to recent improvements made to the State mineral marketing service. The Precious Minerals and Marketing Corporation (PMMC) now offers near-market prices for both gold and diamonds, and, perhaps more importantly, employs 800 licensed buyers who travel throughout the country purchasing minerals from artisans. This has been the main reason behind the considerable increases in PMMC mineral purchases in recent years. Notwithstanding this improvement, however, the majority of the country’s 200,000⁶ artisanal and small-scale gold miners remain unregistered. The measures in place have done little to facilitate improved regularization, as they have failed to address the interrelated factors causing widespread illegality in the first place. These have been identified as insufficient institutional support, complications
with the existing licensing scheme, and uncooperative large-scale mining companies. Each is examined in turn.

4.1 Insufficient Institutional Support

In Ghana, the most pertinent pieces of legislation in place for artisanal and small-scale gold mining activity are the Small-Scale Gold Mining Law (PNDCL 218) and Mercury Law of 1989 (World Bank, 1995; Tsikata, 1997; Iddirisu and Tsikata, 1998). While the latter mandates the use of proficient mercury management practices at operations, the main provisions of the former include the following:

1. Prohibition of small-scale mining unless a licence has been granted by the appropriate authority.
2. The size of a small-scale concession (i.e. 25 acres).
3. Pertinent criteria to licensees.
4. Requirements for appropriate mining practices, including due diligence to health, safety and the environment.
5. Prohibition of the use of explosives.
6. Exemption from payment of income tax and royalties for a three-year period from when the law was proclaimed.
7. Limiting the sale of gold to authorized buyers.
8. The establishment of district support centres, along with the provision of advice and training facilities to facilitate efficient mining.

Shortly after the enactment of the Small-Scale Gold Mining Law, the government established, under the guided direction of both GTZ and the World Bank, the Small-Scale Mining Project (SSMP), which was intended to provide the requisite institutional support to the industry. Its central pillar, the Minerals Commission, was established under the Minerals Commission Law of 1986 as amended by the Minerals Commission Act of 1993. The purpose of the Commission is to help formulate government policy with regard to ‘exploration for and exploitation of mineral resources’ and to handle ‘all public agreements relating to minerals’ (World Bank, 1995, p. 12). It also has a Small-Scale Mining Unit comprised of some 30 professionals and technical staff.

The remaining pillars of the SSMP are as follows:

1. Precious Minerals and Marketing Corporation (PMMC): assigned all mineral purchasing-related responsibilities.
2. The Mines Department: put in charge of the industry’s health and safety issues.
3. The Geological Survey Department: commissioned to undertake important prospecting and geochemistry-related tasks.

Although PMMC continues to provide reliable purchasing services to artisanal and small-scale gold miners, both the Mines Department and Geological Survey Department have long abandoned their duties because of alleged cash-flow problems. In what was clearly a move to prevent the SSMP from completely collapsing, the Minerals Commission took on many of the functions that had originally been assigned to these units. However, as the effectiveness of the project is contingent upon the full participation of four units, the subsequent assumption of abandoned responsibility by another unit — that is, the Minerals Commission — considerably debilitated what was potentially the makings of an effective support system for ASM.

Many government people now critically question the effectiveness of the Commission in providing for the small-scale mining industry, suggesting that the large number of tasks it now undertakes has led to backlogs of paperwork and a plethora of internal financial problems. Perhaps more significantly, as a result of its burgeoning regulatory responsibilities, the Minerals Commission has clearly assumed a dual function with respect to ASM, which, in turn, has caused it to lose credibility within many government circles. A senior government officer broached the severity of the problem during a personal interview:

‘The Minerals Commission is basically a policy-making body and the fact that it is now implementing laws and has a promotional responsibility has put it in an awkward position...As a result, the Government is often confused with what it [the Minerals Commission] is exactly doing’.

Moreover, increased responsibility on the part of the Commission has hampered its ability to deliver support to artisanal and small-scale gold miners on the ground; many once-promising support-related initiatives have been mismanaged or abandoned outright because of finance shortages. This is perhaps best exemplified by the effort taken to decentralize support services to small-scale miners, which involved the construction of seven small-scale mining district support centres in Tarkwa, Bibiani, Dunkwa, Bolgatanga, Oda, Assin Foso and Asankragwa (Figure 3) — areas containing the highest population of artisanal and small-scale gold miners in the country. The aim was to equip each with appropriate equipment and training facilities for artisanal and small-scale miners. However, the system has proven to be inefficient overall, and is plagued with a number of problems. Most notably:

1. Centres are generally well out of the reach of miners, who often have to commute many kilometres to receive technical support and guid-
ance. This also poses a formidable challenge to the employees of the
centres themselves, particularly those in Tarkwa and Bibiani, where
staff have been assigned the task of monitoring the day-to-day opera-
tions of mines as much as three hours distance away by automobile.

2. The centres lack Internet and Intranet capabilities, and most are
equipped with basic typewriters. Thus, a request to head office from
district centre staff for a list of registered miners, or the details of a
concession — a task that would normally take minutes via email
communication — takes weeks, if not, months.

3. Of the computers that are operating, most are low on memory and
use the obsolete Windows 95 operating system. As of August 2002,
the Dunkwa computer was broken.

4. The Dunkwa centre is staffed with only an officer and a driver.

5. The Oda and Bibiani centres do not have (telephone) land lines; both
are on a ‘024’ Motorola cellular phone extension, which is nearly
impossible to get through to during the working day.

6. Petrol payments from Accra to the Bibiani and Tarkwa offices for the field
vehicle have often been untimely, thus preventing staff from visiting sites.

In short, despite appearing to be systematic in design, the small-scale
mining district support centre scheme has proven to be inefficient in
practice. There is also consensus on the ground that the resulting short-
age of institutional support has been a major disincentive to registering
operations, as many artisanal miners now feel that the quantity of
institutional assistance does not justify the costs and grievances asso-
ciated with securing a licence. Thus, many miners elect to retain their
status as illegal galamsey, continuing to engage in transient, largely
undetectable, artisanal gold mining activity. One resident in Tarkwa
justified his existence as an illegal miner as follows:

‘We need a job to do...another form of employment...the govern-
ment needs to help us...but they are not...then we can leave this bad
way of life. They have to organize things for us...Look at my age,
because there are no jobs...this is why I do this horrible work’.

Another miner residing in a nearby galamsey village noted:

‘The poverty here you know...here is our motherland...so as far as
the gold is concerned...we don’t waste our time for anything else
because we know the returns here will give us money, though
small...If government officers were to come, they should bring us
together and advise us, so we can improve what we are doing...but
they do not come around in Ghana here...usually when there is no

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license, when they [government officials] come, we know we will be sacked...but they won’t come because of our poverty and isolation’.

The absence of a *de facto* government policy on ASM further propagates illegal (mining) activity. For instance, the stance of the Minerals Commission is fixedly clear: its officers will not register *galamsey* on parcels of unused land belonging to large-scale mining companies, nor will they openly provide advice to participants of the illegal mining branch altogether. However, in contrast, PMMC buying agents are encouraged to purchase gold from both legalized small-scale miners and *galamsey*, and often travel vast stretches to visit illegal mining villages. As one illegal gold operator in Tarkwa put it, ‘yes, we know about the (Minerals Commission) district centre here...we even sell our gold to an agent nearby’. The pressing question, therefore, is why would a miner register his operations with the government if sound and reliable gold purchasing services are provided irrespective of mining status?

In summary, because of an acute shortage of institutional support, manifested as contradictory policy and an absence of effective assistance and services on the field, few gold miners operating on an artisanal and small-scale scale adhere to governmental regulations.

### 4.2 Licensing

In Ghana, a small-scale gold miner must first secure a licence to operate concessions registered in his/her name. Aryee *et al.* (2003) provide a detailed overview of this licensing procedure, which begins with prospective licensees, who may only be Ghanaian nationals aged 18 years or older, first submitting ten 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. 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 permit from the 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.

Many researchers have argued that the implementation of procedurally complex legislation for small-scale mining has been a major disincentive for miners’ registration. More specifically, as Jennings (1999) explains, certain governments have introduced complicated licensing
and registration schemes for artisanal and small-scale miners, in which cases there is minimal incentive for operators to conform to regulations, particularly when the risks of being caught and sanctions applied are minimal. Kafwembe and Veasey (2001) also maintain that the difficulty with which artisanal miners have in obtaining requisite permits is proving to be a major obstacle to improving industry productivity. This appears to be the case in Ghana, where, in many government circles, there is growing concern over the efficacy of the licensing procedure in place for small-scale gold mining. More specifically, there is consensus that the process is riddled with bureaucratic complexities, and that the labour, time and costs associated with obtaining a licence may be dissuading many from considering registering altogether. Nübery (2001, p. 65) was among those to report 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’. Similarly, the principal argument repeatedly broached by many of the country’s officials relates to the industry’s subsistence nature, and its operators — who rely on daily cash returns for their survival — being unable to wait for the assessment of their application for a licence and, therefore, not having the financial means to cover the requisite costs. Moreover, in communicating with local government officers, many noted that there are many unnecessary phases in the licensing process. For example, as part of the licensing preliminaries, a prospective miner must obtain an environmental permit from the Environmental Protection Agency (EPA), an organization that neither liaises with the Minerals Commission, nor assumes any additional industry-specific responsibilities, once the mining commences.

The length of the registration procedure appears to be well known within resident small-scale mining communities. As one illegal operator in Bibiani casually put it, ‘sometimes it takes a year...it is going to take some time, as after sampling, it goes to Accra and EPA’. There are, however, a number of other operators who are openly displeased with the licensing procedure, contending, inter alia, that its length, cost and duration are major disincentives to their registering as small-scale miners. As one illegal miner in Tarkwa explained:

‘The five year duration of the license should be extended...it is way too short...and the process we go through to get the license is too long...we have to go to EPA, to Mineral Commission, after getting the license, we have to go to Accra to get the permit every year...then its Mines Department...the assembly...the list goes on...maybe decentralize it and make it faster’.
Another illegal operator described the burden of being torn between having a lack of societal status and his survival, explaining that ‘everyone talks badly of us galamsey but all we are doing is fighting to survive...licenses are too long and we do not have the time to wait...no noonecanagowithouteatingforamonth’.

The case of James Mensah, a 52-year-old galamsey miner in Tarkwa, is clear indication of how it is not always a shortage of education forcing certain individuals to mine illegally but occasionally, the lack of available employment overall. Mr Mensah, who has three years’ training at a local polytechnic, two years’ training in general engineering, and a certificate for completing a chemical technician course, taught both physics and mathematics in Liberia but was driven to mine because of a shortage of employment in Ghana upon his return. Originally lured by the prospect of ‘accruing capital’ and ‘stretching out to some business’, Mr Mensah had this to say:

‘Some time ago, I and a friend contacted the small-scale mining office (in Tarkwa) to prospect somewhere and then do it somehow in a lucrative fashion...we encountered some officials and were then told before you can just prospect, you have to gain permission...we were told that we had to pay 800,000 cedis (US$120) but at that time we were not having that amount, so we just went ahead...we have been (mining) here two years’.

Even in cases where regulations have been adhered to, small-scale gold miners have found themselves pressured to leave their land. One example is Mr Mieza Kyi, a 65-year-old gold miner operating in Bibiani, some 50 miles west of Kumasi. Despite being illiterate, Mr Kyi went through legal channels to obtain a concession but was still unable to renew his licence after its expiration, as his concession was absorbed by a large-scale operator. Here is his story:

‘I was registered...I did not want to violate the law...I wished to avoid troubles...it prevents you from getting arrested...Because [the work] was manual, and difficult to take the hard rock from the ground and feed into the mortar...in the long run, the production was not so encouraging...We had a lot of people doing this, so at the end we had to share out the earnings, and it was just peanuts that everybody got...And just at the time the gold price was going up, at a time for us to make it big, the Ashanti Goldfields took over the concession, and therefore, we could not go further, and that resulted in where I am now...and the little we have left has been what we have been feeding on...I was supposed to get investment support from Wisinski Associates in the US, who confirmed with the Minerals
Commission that I was a legitimate miner, but it was at that time the Ashanti Goldfields took over my concession...All I received in compensation was a small pump, which no longer works’.

Despite being driven to mine in a forested region well out of the Bibiani district, Mr Kyi is still working to register a land concession through the district office in Bibiani, noting that he insists on complying with the laws of the land. Clearly, the existing licensing procedure, which features a set of laborious stages, is biased and potentially costly, has been an additional impediment to industry regularization.

4.3 Uncooperative Large-scale Mining Companies

The literature is replete with discussions of strained relations between small- and large-scale miners. The crux of the problem can be summarized as follows. Financially deprived economies have often targeted the restructuring of their mineral industries as a means of luring foreign investors. In many cases, the investment environment proves extremely favourable to the foreign company, as governments desperately seek to attract foreign parties by any means possible. However, the land concessions awarded to large-scale miners are typically riddled with artisans, who, despite having engaged in mining for decades and often continuing the activities of their ancestors before them, are now branded as ‘illegal operators’, in many cases, for the benefit of the large-scale operator. Land use conflicts inevitably result between the mining parties.

As alluded to earlier, small-scale gold mining in Ghana was legalized in 1989, largely as a footnote to the ERP, which mainly targeted the expansion of the indigenous large-scale mining activity. By the end of 1998, 23 companies had been granted gold mining leases, while an additional 237 groups were involved in gold prospecting (Aryee, 2001). Normally, it is a quasi-encouraging sign when large-scale operators provide assistance to their artisanal and small-scale counterparts but such has not been the case in Ghana. Beneath the glossy corporate environmental and social reports issued annually by large-scale operators is a systematic disregard for the country’s artisanal and small-scale miners. Companies have generally been inflexible in their approaches toward displaced artisanal gold miners. In the best of scenarios, they are granted permission to only mine designated portions of a concession, most often tailings compounds and small surface deposits unsuitable for large-scale extraction; equipped with security cards; and required to sell all product to a commissioned PMMC agent on-site (see Appiah, 1998). In most cases, artisans are simply chased off the boundaries of a concession by large-scale mine security forces.
The relocation package provided by Goldfields (Ghana) Ltd to villagers of Tarkwa in 1997 — the largest of its kind in West Africa — is a case in point of how the management of most of the large-scale companies operating in Ghana have little regard for indigenous operators and rural dwellers; a likely motive behind the relocation was the presence of some 5,000 galamsey on the Goldfields’ site. Lured by the possibility of producing 15,500 kg gold per year from a resource of 404,000 kg, successful negotiations were achieved with the Apinto Farmers Association, 1,872 of 1,979 eligible landlords, and residents of the Atuabo, Mandekrom and Sofo Mensah communities, which resulted in the resettlement of some 20,000 individuals (Steyn and Kahle, 1998). However, many relocated settlers have since voiced complaints about shortages of water, inadequate housing, and a lack of basic village-like facilities such as cemeteries and wells at the new site, thus underscoring the company’s lack of foresight.

According to MiningWatch Canada’s Jamie Kneen, the ‘problem goes beyond Goldfields Ghana Ltd’, as ‘most of the [Tarkwa] region is under mining concessions, including people’s farms and villages and forest reserves’ (MiningWatch, 1999). Aubynn (1997) notes that at least 32.56 per cent (766.1 sq. km) of the town has been allocated as a mining concession, of which 220 sq. km is occupied by Goldfields Ghana. Government officers in Tarkwa further confirmed that the land surrounding the resident small-scale mining district support centre was, at one point, included as part of a concession awarded by the Minerals Commission to a large-scale mining company. This raises the question of how the Minerals Commission is going about awarding land concessions in the first place.

The recent proliferation in large-scale mining concessions, in turn, has resulted in an acute unavailability of land for artisanal operators, thereby restricting their ability to register with the government. One miner explained that ‘the chance of getting a decent plot of land’ would serve as ‘incentive for obtaining a licence’, adding that because ‘at this point the government cannot guarantee [me] that’, it ‘is why [I] remain unregistered’. A neighbouring illegal miner operating on an Ashanti Goldfields’ Tarkwa concession noted, having heard that registered miners get ‘bad land in the end, and end up wasting time and money’ that he ‘did not have a license because there is no land’. The problem was perhaps broached in its fullest by a retired miner in Accra, who explained that:

‘They [the government] need to assist in the demarcation of land plots...why is the government awarding these massive lands to GFG (Gold Fields Ghana) and other big companies? How can this illegal problem be corrected if the government continues to award such massive land plots out when there is none left for the galamsey?’
The intense competition for land has also put some district officers in a precarious position, many of whom find themselves ameliorating conflicts in the field under the guided instruction of the bureaucrats in Accra. As one mines warden explained:

‘Sometimes our work involves conflict resolution or boundary disputes because this small-scale mining involves frequent movement...and sometimes there are boundary disputes and you see them holding guns...so when you hear that, “they are working on my land”...it is a problem...you have to rush there...there are so many...Accra does not understand how they are working’.

To summarize, the unavailability of land — fuelled largely by uncooperative large-scale miners — along with insufficient institutional support and a complicated licensing system, have been identified as the main causes of widespread illegal artisanal and small-scale mining in Ghana; findings from the literature, and interviews with miners and key government personnel help to substantiate this hypothesis. In light of these problems, the next section of the paper makes some tentative recommendations for both eradicating clandestine activity and facilitating improved regularization in the sector.

5. Some Possible Ways Forward

Noetstaller (1994, p. 13) notes that, ‘in order for small-scale mining to be prosperous and safe, it needs to be raised from being an unorganized, unsupervised industry to one that is modernized, monitored, organized, and supported so that specific goals can be set and met’. However, through its intervention and initiative, the Ghanaian government has done little to improve the regularization of operations and effectively quash the illegal gold mining activity now rampant in many rural regions. This section of the paper argues that improved geo-prospecting and demarcation of concessions to prospective miners, provision of improved support services and implementation of re-skilling programmes are keys to reducing the occurrence of clandestine activity.

5.1 Improved Geo-prospecting and Land Allocation Policy

How can land be awarded to mining parties if its content is not known? Though perhaps an obvious question, in many cases, the Ghanaian government possesses little knowledge of the geological and anthropological characteristics of land concessions awarded to small-scale gold
miners. Nor have the bureaucrats in Accra equipped their people at the
district centres with the knowledge to demarcate land effectively. As one
mines warden explained, ‘we do not have the survey equipment to
demarcate the boundaries of a concession to them [miners]...we are
just using a compass’. Since there is no means of guaranteeing adequate
mineral yields, many prospectors have chosen to avoid registering
altogether. As one miner put it, ‘I cannot wait the time for a licence
nor do I have the money to pay...but if I was given good land to mine
legally, I would happily pay the fees’. A government officer described the
problem at length:

‘In Zimbabwe, before one even begins land plot allocation, one has
data...So people are willing to invest because they get something in
return. Here [in Ghana], people invest but without data, then go and
mine and get no gold...You have to invest the money and time to
prospect the land initially before its distribution...If you go about it
and find areas that are good, even more people would invest in the
industry. As the situation stands now, if I was an investor, I would
never sponsor anyone to acquire a licence without any data or
geological information...This is the major problem. We have no
idea of the quality of the concessions...it could be good today but
bad tomorrow’.

The government, therefore, needs to find ways to increase miner confi-
dence in the system, a possible starting point being to provide those keen
on registering with productive concessions — that is, land plots for which
gold content has been predetermined. In communicating with various
government officers, it was explained that through ‘word of mouth’ of
the Minerals Commission’s often questionable land allocation process,
an increasing number of artisanal miners are opting to remain unregis-
tered.

According to Aryee et al. (2003, p. 139), a proposal is being considered
for adoption under the Ghana Poverty Reduction Programme, the aim of
which is to ‘improve the performance of small-scale miners’. One of its
major propositions is to identify areas with suitable mineral deposits for
small-scale gold and diamond mining by reviewing reports submitted by
exploration companies to the government over the years, undertaking
further exploration to better establish location and sizes of reserves, and
permitting activity in demarcated areas. The key, however, is to improve
upon the efforts of the original World Bank project, which, despite being
mismanaged, identified possible plausible undertakings. Initially, funds
were transferred to the Geological Survey Department to prospect and
demarcate areas suitable for small-scale gold mining. More specifically,
the Mining Sector Development and Environment Project had originally
sought to develop ‘a program to make better geological information available to small-scale miners through the establishment of teams of geologists trained and equipped to delineate recoverable ore bodies on small-scale mining concessions’ (World Bank, 1995, p. iv). Some US$1.66 million was given to the Geological Survey Department for this purpose; it was instructed to compile geological information, identify priority areas by aerial survey, and to prepare an action programme with detailed survey specifications. However, not only has the money evaporated, the work undertaken for this cause was reportedly ad hoc. As one officer put it:

‘They gave this World Bank money... for prospecting... They claimed that they came and prospected but no one came and informed us... They told us they came to my territory and it was only a coincidence that I met them in the field... And when I did, I found that they had only dug a few holes anyway and had not properly prospected the land’.

This raises what is perhaps an even more pressing question: where have the funds gone? One undisclosed source in Accra mentioned that an executive member of the Association for Small-Scale Mining was given money ‘to help the industry’, which was supposedly invested but because he later could not account for it, he ‘was sacked’. Widely reported instances of mismanaged funds and embezzlement make the external management of future grants for geo-prospecting and related tasks a more feasible strategy. Specifically, a trusted source at an international agency abroad should be assigned the responsibility of overseeing the management and distribution of funds for the stipulated purpose — in this case, the demarcation of land for small-scale gold mining.

In summary, to increase operator confidence in the land allocation system (for small-scale gold mining), the government needs to improve its demarcation strategy. To do so, the Minerals Commission must again liaise with the Geological Survey Department, and craft a series of geo-chemical maps, which can be used as baseline references when awarding concessions to small-scale gold miners. Intensive prospecting must first be undertaken in the field, and the findings must then be both compiled in accessible reports and diagrammed. Most importantly, the Commission must equip district officers with this knowledge, as, in most cases, they are the first ‘point of contact’ with prospective small-scale gold miners. As the small-scale gold mining community is tightly knit, word that the system has improved would undoubtedly spread rapidly.
5.2 Improved Support Services for Small-scale Gold Miners

To date, the Ghanaian government has failed to take into account the needs of the small-scale gold miner. Referring specifically to the mindset of the typical small-scale gold miner operating in Ghana, one mine warden identified the problem to be ‘the education levels...sometimes it is low and therefore their level of thinking is also subsistence’. To provide an indication of the industry’s level of technological advancement, most miners resort to using the ‘inner tyre tube’ method of prospecting; this involves scattering crushed ore along the smooth black innards of a scrap tyre to estimate gold grain content. The application and provision of highly advanced machinery and management schemes are therefore unlikely to persuade small-scale gold miners to operate legally. In communicating with individual miners, it is clear that their most pressing needs are improved equipment and access to finances. In terms of equipment, there is a need for basic mechanical crushers and grinders, which would enable the average miner to improve extraction efficiency and inevitably reduce dependence upon inefficient manual labour. In the majority of its attempts to provide resident small-scale gold miners, however, the Ghanaian government has distributed inappropriate equipment. For example, under the auspices of GTZ in the mid-1990s, the Minerals Commission purchased a wide range of equipment, which, according to a senior member of staff, was ‘idealistic and more fitting for those engaged in mining on a large scale, and not small-scale gold mining’. The lack of use of this equipment, in turn, forced the government to sell it at discounted prices, the funds from which were supposedly returned to the SSMP. In a related example, the plan to place a US$10,000+ crusher purchased using World Bank funds in the centre of a Tarkwa concession — intended for use by multiple miners — has proven unsuccessful, as the machine, in the words of a local miner, ‘is too technical for our purposes’. Another local miner noted: ‘We have received this hammer mill but haven’t arranged or organized who can use it...the World Bank put this mill in place but did not show us how to use it’.

If the Ghanaian government intends to dissuade illegal mining through equipment provision, it must distribute machines that are both simpler in design and more in demand. For example, almost every miner is in need of pumps. Specifically, operators often experience complications during times of flooding, when gold-rich pits and trenches cannot be drained because of an absence of adequate pumping facilities. As one registered operator put it:

‘The main problem with us is getting the necessary amount of money to buy pumps, to pump water from underground...if we had more
pumps, we could pump out the water, and hire more miners...most of them have abandoned their sites because the water is seeping everywhere...all of these small-scale sites adjacent to us are linked...so if you pump here, the water goes down in surrounding areas as well...we just need a suitable pump’.

In short, effort needs to be focused on purchasing the basic mechanical systems in demand, rather than the complex apparatuses that are beyond the technical capabilities of most of the industry’s operators. The inability of small-scale gold miners to secure financial support for operations stems largely from their lack of credibility in the public domain. Rarely has the government lobbied on behalf of small-scale gold miners, which is a key to improving their reputation in rural environments. Cash-flow must therefore be improved, a fundamental starting point being a change in the lending policy of rural banks. Because of the perceived financial instability of small-scale gold mining, and the transient nature of its activities, few banks are willing to provide prospective miners with loans.

Contrary to many views shared in government, operators are striving to improve their societal statuses to put themselves in a better position to secure financial assistance. As one local small-scale mines consultant explained, ‘when you get closer to them, they want to be treated as business people’, which is why ‘organizing them into recognizable groups is key’. This would require first strengthening the debilitated Association of Small-Scale Miners — the representative ‘voice’ of small-scale miners in Ghana. Drawing from experiences in neighbouring Burkina Faso, another local consultant explained the merit of such a move:

‘The first thing we are trying to do [in Burkina Faso] is to strengthen their Association [of artisanal and small-scale miners]. If the Association is strong, the Association will take up issues about their legal standing in government. They will take up issues with the community. At the same time, organize the training sessions. That is the first thing. If they understand that they must protect their assets.’

Once the Association has been strengthened, miners can then be organized into co-operatives. As has been demonstrated in both the Ghanaian small-scale farming sector, and Burkina Faso’s small-scale farming and mining industries, when individuals are organized into recognizable bodies, co-operative banks and other relevant financial institutions are more inclined to provide assistance. The strengthening of the Association for Small-Scale Mining, and the subsequent formation of small-scale mining co-operatives, both of which would provide the
industry with a more stable footing, are therefore important steps toward facilitating an increased input from rural banks.

An expanded input from the banking sector would also decrease the dependence on gold buyers, who have a lot of power in the existing system. Not only does the government depend on them for collecting gold, but miners also consult them for loans. These buyers are unconcerned with the legal status of operators, which is doing little to reduce illegal activities.

5.3 Implementation of Re-skilling Programmes

The notion of re-skilling artisanal and small-scale miners for alternative employment has received substantial attention in recent years, particularly since the launch of the UNDP’s Sustainable Livelihoods Project. As its Report on Mission to Ghana (Labonne et al., 2000) states, in Ghana the UNDP is seeking to both promote opportunities of developing alternative and complementary sustainable livelihoods, and facilitate the upgrading of the artisanal mining segment. Aryee et al. (2003) discuss the feasibility of some of the large-scale operators sponsoring Alternative Livelihood and Local Economic Development (LED) projects for artisanal operators. The authors make reference to a study recently undertaken by the Minerals Commission, which has identified LED projects now being operated by such mining companies as AGC (Bibiani) Limited, Resolute Amansie Limited, Abosso Goldfields Limited, Bogoso Gold Limited, and Satellite Goldfields Limited in their respective communities. Specifically, these projects provide members of mining communities with the opportunity to undertake skilling and/or entrepreneurship training programmes (e.g. managing small-scale business enterprises, modern farming techniques in cultivation of food and cash crops, livestock farming etc.) under the sponsorship of mining companies.

Re-skilling miners for employment in other trades is a potentially valuable means of dissuading illegality in this context. However, the Ghanaian government appears fixedly clear in its approach toward dealing with illegal operators: ignore those operating in out-of-the-way locations, and remove those operating on large-scale concessions. Effectively re-skilling illegal operators requires addressing three pressing issues.

First, and most importantly, there is the issue of determining the locations of illegal operations country-wide. This is likely to be a formidable task, as some one-sixth of the country is reputed to contain gold. Nevertheless, in order to implement re-skilling programmes for galamsey miners, the government must have knowledge of the locations of operations. To do so, various information sources can be tapped, including the databases of large-scale operators (most of whom have galamsey working
within the boundaries of their concessions), and commissioned gold-buying agents, who often travel to the remotest of *galamsey* villages to collect gold.

Secondly, miners must be desensitized to the prospect of being re-skilled in another trade. For example, many may not be happy with the idea of moving from an industry in which they are their own bosses (i.e. mining), to working under a more complex employee structure. However, if miners are informed that taking up alternative employment could lead to improved quality of life (through improved working conditions and work benefits), the task of promoting re-skilling would be less daunting. Moreover, as the tribal system is still omnipresent in Ghana today, the government may have to deal with contentions that miners have strong cultural links to the industry, and are simply engaging in an activity practised by their relatives before them.

Finally, the government — namely, the Minerals Commission — must lobby for increased participation from the private, public and NGO sectors. The application process for large-scale mining should be amended to require prospective mining parties to assist in any way, shape or form, the small-scale gold miners operating within concession boundaries. Specifically, large-scale operators should encourage artisans to participate in re-skilling programmes and, in appropriate cases, should assume the responsibility of providing them with the requisite training. Participation from the banking sector must also be encouraged, as it may or may not be needed to provide loans for re-skilling programmes. Such initiative will also facilitate increased input from both NGOs and international agencies.

In summary, increased geo-prospecting, provision of improved support services, and the implementation of re-skilling programmes, are keys to reducing illegal artisanal and small-scale gold mining in Ghana. However, to pursue these initiatives to their fullest, the Ghanaian government must change its current approach towards the industry, and adopt a more accommodating, co-operative strategy toward its operators.

6. Conclusion

By combining findings from the literature and indigenous reports with feedback from interviews with key government personnel and miners, this paper has sought to underscore the main factors propagating illegal artisanal and small-scale gold mining in Ghana. Since the legalization of the industry in 1989, operations have intensified, as an increasing number of Ghanaians have migrated to rural areas to take up gold mining in an attempt to escape a life of full-fledged poverty. Despite having implemented a mandatory licensing scheme for operators, because of insuffi-
cient institutional support, complications with the registration process, and the presence of uncooperative large-scale mining companies, an overwhelming majority remain unregistered, and are therefore labelled as illegal *galamsey*. The government appears to view legislation and a series of top-down support initiatives as the best way forward. However, these initiatives have failed to facilitate regularization of the sector, let alone address the income needs of the miners themselves. To effectively eradicate clandestine activity, the relevant authorities should begin by thinking more strategically about the sector and its status within the Ghanaian economy. At the same time, they must undertake research aimed at improving understanding of the activity. Specifically, it needs to increase geo-prospecting activity and demarcate land plots suitable for artisanal and small-scale gold mining; improve the quality of existing industry support services; and explore options for re-skilling operators in different industry trades. Over the long term, such initiative would serve to benefit both the government and needy artisanal and small-scale gold miners.

**Notes**

1. Despite being one of the poorest countries in the world, Ghana has been placed under the category ‘Medium Human Development’. Admittedly, the UNDP concedes that ‘although the HDI is a useful starting point, it omits vital aspects of human development’ (UNDP, 2002, p. 34), which is clearly the case here.

2. A major exception is China, where there are as many as six million artisanal and small-scale coal miners operating at any given time.

3. The efforts made to legalize ASM in the 1970s and 1980s were delayed considerably because of the lack of progress made at a string of UN conferences, the collective aim of which was to discuss the importance of ASM, and the potential benefits of legalizing its activities. Discussions were considerably thrown off track, as delegates became fixated on developing universal definitions of both ‘artisanal’ and ‘small-scale’ mines. As Hollaway (1997) explains, questions such as ‘at what point does “artisanal mining” become “small scale mining”’, and ‘when does a “small-scale mine” become a “medium scale mine”?’ dominated discussions.

4. As Aryee (2001, p. 61) explains, according to the UN definition, a ‘mineral economy’ is that which generates at least 10 per cent of GDP from mining and at least 40 per cent of foreign exchange earnings from mineral exports.
5. Highly migratory, unregistered, Ghanaian small-scale miners are referred to locally as *galamsey*, which, according to native people, originated from the English expression ‘Get them and sell’. During the colonial period in Ghana, the Syrians and Lebanese who were engaged in the illicit trade of gold constantly worked to persuade locals to ‘get and sell’ gold, and because the local pronouncing of this phrase was ‘Gal-am-sey’, Ghanaians soon referred to Syrians and Lebanese as ‘galamsey’. Over time, the expression eventually became a label for illegal artisanal mining activity.

6. In 1995, the World Bank conservatively estimated there to be 30,000 small-scale miners operating in Ghana, 20,000 of whom were engaged in the extraction of gold (World Bank, 1995). However, the most realistic assessment is that of Appiah (1998), who estimates that there are over 200,000 small-scale miners in Ghana.

7. Representative body for small-scale miners operating in Ghana.

8. UNDP’s Sustainable Livelihoods (SL) Programme aims to address poverty eradication in the context of the poverty and environment nexus. Its SL Unit seeks to provide people with access to facilities and opportunities that they can use to better their lives and their livelihoods in a sustained manner.

References


Reflection from Western Ghana’, Working Paper 9/97, IDS, University of Helsinki, Finland.


