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Small-scale mining, poverty and economic development in sub-Saharan Africa: An overview

Gavin Hilson

School of Agriculture, Policy and Development, The University of Reading, Earley Gate, P.O. Box 237, Reading RG6 6AR, UK

A B S T R A C T

Artisanal and small-scale mining (ASM)—low tech, labour intensive mineral processing and excavation activity—is an economic mainstay in rural sub-Saharan Africa, providing direct employment to over two million people. This paper introduces a special issue on 'Small-scale mining, poverty and development in sub-Saharan Africa'. It focuses on the core conceptual issues covered in the literature, and the policy implications of the findings reported in the papers in this special issue.

Introduction: The rise of Africa's small-scale mining economy

The term 'small-scale mining' first surfaced in the United Nations publication, *Small-Scale Mining in the Developing Countries* (UN, 1972). Although the topic was very much an afterthought on the donor agenda at the time, the report nevertheless proved extremely important: it highlighted, for the first time, the economic significance of small-scale mining in developing countries, and underscored the importance of facilitating the design and implementation of relevant laws and policies through the identification and 'description' of the sector's 'significant characteristics' (UN, 1972, p. 1). The message resonating in policymaking circles at the time was that artisanal and small-scale mining (ASM) is populated by businessmen looking to 'get rich quick'.

The sector continued to be strongly associated with entrepreneurship throughout the late-1970s and 1980s. Similar views were expressed in the literature at the time. Alpan (1986, p. 95), for example, pointed out that 'in contrast with many other rural development schemes, small-scale miners generally are self-motivated and start their enterprise without government encouragement and assistance'. Similarly, Nöetstaller (1987), who produced the seminal report, *Small-Scale Mining: A Review of the Issues* on behalf of the World Bank, argued that 'the small enterprise segment has consistently been identified as a fertile ground for the growth of indigenous entrepreneurship…[that] in mining, this is particularly true for the artisanal operations' (Nöetstaller, 1987, p. 16). These, and allied, discussions, would inform a policy dialogue that called for improved productivity and efficiency in the activities of these 'entrepreneurs', its main manifestations being improved equipment and other forms of technical extension.

But whilst providing fairly thorough accounts of ASM activities, including details of the equipment used and processing techniques featured at operations, this literature sheds very little light on the *types* of people who were engaged in the sector at the time. The scores of international workshops on ASM that took place during this period, including the *International Conference on the Future of Small-Scale Mining* in Jurica, Mexico, 1978, and the seminar *Strategies for small-scale mining and mineral industries* in Mombasa, Kenya, 1980, also did very little to advance understanding of the sector's complex organizational dynamics. As Jennings (2003) explains, the chief priority of the stakeholders who attended these events was developing universal definitions for 'small-scale mining' and 'artisanal mining', or, as Hollaway (1997, p. 35) put it, 'to define what it was they were talking about'.

In the 1990s, however, the perception of ASM began to change. The sector's rapid expansion, particularly in sub-Saharan Africa, and accounts of it providing employment to vulnerable groups, including women and children (Hilson, 2008a, 2008b; Hilson and Banchirigah, 2009), suggested that its existence was linked strongly to peoples' hardship. This forced policymakers to think more dynamically about its existence. In Ghana, for example, as many as one million people (or in the range of five percent of country's population) could be directly employed in the sector (Banchirigah, 2008). The employment estimates presented for a number of other countries, despite being outdated in many instances, further underscore the sector's growing economic importance in rural sub-Saharan Africa: Tanzania, 500,000 (Fisher, 2007); Mali, 200,000 (Keita, 2001); Burkina Faso, 200,000 (Gueye, 2001); and Sierra Leone, 500,000 (Maconachie and Binns, 2007). The majority of Africa's artisanal miners are employed at operations engaged in the extraction of gold but there are also significant 'pockets' of people working deposits of alluvial gemstones and diamonds in countries such as Sierra Leone, Madagascar and The Democratic Republic of Congo.

E-mail address: G.M.Hilson@reading.ac.uk

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The idea that ASM, in many cases, is 'poverty-driven' and has become an integral segment of the developing world economy's rural fabric was first brought to the fore at the *International Roundtable on Informal Mining* in Washington DC in May 1995 (Barry, 1996). It was also argued at the time that in addition to providing obvious employment benefits for citizens, a formalized ASM sector could be a major coup for governments: gold and gemstones are 'more or less a standard "currency"… the produced value is equivalent to extra foreign income…[—that] the value of artisanally produced gold [and gemstones] can be considered as a net contribution to foreign income, as freely convertible "currency" is produced with pure local input' (Hentschel et al., 2002, p. 52). Thus, it was argued, if captured, the product emanating from ASM camps could make significant contributions to foreign exchange.

The change in mindset occurred at a time when efforts to legalize the industry's activities and support its operators were yielding few positive results. In the region's gold-rich countries, attempts to legalize ASM and support operators have taken place alongside more comprehensive, donor-driven initiatives to reform large-scale (industrial) mining activities. The latter have mainly been exercises aimed at attracting foreign investment to prospect and mine for *gold*: overhauling legislation to include a range of incentives, including low royalty payments, waived duties on imported equipment, attractive ownership structures and permission to repatriate profits. Sweeping changes to mineral policies have facilitated, *inter alia*, a 700 percent increase in gold production in Ghana over the past 20 years, an increase in annual output from two to 50 tonnes in Tanzania during the period 1998–2005, and a tenfold production increase in Mali since 1991 (Aryee, 2001; Jul-Larsen, 2006; Curtis and Lissu, 2008). At the same time, however, expanded production has taken a significant amount of land out of the hands of indigenous people, and deprived them of economic opportunities. Consider the following examples:

- In Ghana, an estimated 30–40 percent of gold-mineralized land is currently under concession to mining and mineral exploration companies (Ghana Chamber of Mines, 2006). To pave way for this development, tens of thousands of villagers have been displaced to date, including in the range of 30,000 people in the Tarkwa locality (Ismi, 2003), and more recently, over 3000 households in Kenyasi in the Brong-Ahafo Region.[1] Moreover, there is very little land available to accommodate the country's swelling small-scale mining population. The Ghanaian Government has, for the most part, been unsuccessful in its efforts to persuade companies to release sections of demarcated concessions, which has forced it to use scarce funds to identify viable plots for small-scale gold mining licenses. The government announced, on 24 October 2008, that it had demarcated 44 areas amounting close to 500,000 acres for this purpose, but their viability has yet to be determined.
- In Uganda, an emerging gold mining economy in sub-Saharan Africa, the large-scale mining and quarrying sector is expanding at a rate of 11 percent per annum (Government of Uganda, 2005). Prospective small-scale miners have found it extremely difficult to secure viable plots for their activities.
- In Tanzania, 400,000 people were evicted in one community alone (Bulyanhulu) to allow for the development of a large-scale gold mine project (Curtis and Lissu, 2008).

The host of projects implemented over the past 10–15 years in sub-Saharan Africa to bring informal gold miners into the legal domain and support their activities has had minimal impact because, as the abovementioned examples illustrate, mineralized areas are now in short supply, and many large-scale miners are unwilling to cede unused portions of their concession. This has caused significant agitation in rural communities, at times precipitating violent clashes between mine management and encroaching artisanal miners.

Donors have also underestimated the challenges with formalizing and supporting artisanal operators engaged in the extraction and/or processing of comparatively less ubiquitously occurring—more 'localized'—commodities such as diamonds and gemstones. For example, despite claims of helping to inform miners of the value of diamonds, and monitoring diamond royalties and fees, the USAID-sponsored Peace Diamond Alliance has done little to improve the organization of ASM activities, overall, in Sierra Leone; nor, given the high level of foreign intervention and prevalence of international—and often illicit—buying networks, will the initiative facilitate miners receiving fair payments for diamonds. Discussions by officers at the UK Department for International Development (DfID), the World Bank and United Nations on supporting the Democratic Republic of Congo's diamond miners, and Madagascar's gemstone miners, are likely to yield similar results: in both countries, there are also numerous 'shadow' and illicit buying networks firmly entrenched that are unlikely to disappear with the current level and focus of donor support, but which *must* be removed in order for operators to improve their livelihoods.

Whilst the Roundtable has certainly spawned a rhetoric that calls for artisanal miners to be at the centre of development efforts, in the case of sub-Saharan Africa, it has failed to stimulate meaningful action aimed at obtaining 'detailed knowledge of the cultural, social, economic and organizational context of the miners' (Hentschel et al., 2002, p. 52). If donors and policymakers are keen on forging ahead with formalizing and supporting ASM in the region, they must go back to the drawing board. The industry is burgeoning, and more importantly, the dynamics of activities are markedly different from those of 10–15 years ago: a foreign-controlled large-scale mining economy is now firmly entrenched in sub-Saharan Africa, and the shadow networks long in place in diamond and gemstone production chains have become even more rooted, despite growing awareness of the corruption rampant in the sector. The initial task that must be undertaken—however daunting—is careful analysis of the situation on the ground in order to gain a better understanding of, *inter alia*, the organizational structures in place, the types of people engaged in activities, and the needs of operators. These data should be used to inform policy, and design and implement more *appropriate* industry support schemes

The papers presented in this special issue help to bridge this gap by offering a range of perspectives on the dynamics of ASM in sub-Saharan Africa, and ways in which to formalize the sector. The papers collectively draw upon experiences from seven countries in the region.

The dynamics of Africa's small-scale mining economy

A typical ASM camp in sub-Saharan Africa will contain an array of workers with different skills and educational backgrounds. Many were made expendable under structural adjustment and reform: unable to find viable replacement employment, tens of thousands of retrenched civil servants, teachers and redundant large-scale mine workers have migrated to rural areas in search of employment (Chachage, 1995; Dreschler, 2001; Mondlane and Shoko 2003; Hilson and Maponga, 2004; Hilson and Potter, 2005; Banchirigah, 2006). In the first paper in this issue, Frank Nyame,

[1] http://newmontghana.com/index.php?Itemid=1&id=27&option=com_content&task=view (accessed 1 Dec 2008).