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Buying into formalization? State institutions and interlocked markets in African small-scale gold mining

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ABSTRACT

During recent decades, artisanal and small-scale mining (ASM) in Africa has increased tremendously. An unknown but significant part is constituted by activities that are not based on legally registered mining licenses. The division of formal and informal ASM is, however, dissolved in the marketing chain where trading channels are intertwined: traders buy from miners with and without a license. So far state institutions and civil society organizations have endeavoured to 'formalize' the informal sector by focusing on relatively isolated entry points in the ASM chain from production to consumption. This paper argues that future research and design of policy mechanisms needs to focus on the inter-linkages of actors and material flows within the complex intertwinement of the formal and informal ASM sectors. Our point of departure is the findings on interlocked markets within the literature on rural dependency relations, barriers for poverty eradication and agricultural development. The paper outlines the previous debate on formalization and maps out the territorial and organizational configuration of the present ASM gold chain in Tanzania and Ghana. On this basis we maintain that state action is inevitable and suggest possible institutional mechanisms to set up incentives for possible formalization pathways for African ASM gold chains.

Introduction

The development of artisanal and small-scale mining (ASM)[1] in Africa during recent decades has been characterized by two important features. The first one is the almost explosive expansion in scope and number of people involved in the activity. The other one is the significant part of the activity that is carried out informally, i.e. not as legally registered operations based on ordinary mining licenses. Registered ASM operations have spread due to increasing official recognition of other types of mining operations than large-scale operations – mostly managed by foreign owned companies – as indicated by the widespread incorporation of the ASM sector in national mining laws. However, an unknown but substantial share of total ASM production is taking place in the 'twilight zone' where actual production is illegal in the sense that mining is taking place on land not licensed to the operators but trading channels are entangled so it is hard to distinguish the two sectors in the downstream segments of the ASM chain. This is particularly pronounced in ASM for gold but also evident in other precious minerals, gemstones and industrial minerals (e.g. salt, aggregates, and lime).

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[1] In this article, artisanal and small-scale mining are used interchangeably under the concept of ASM, which refers to individual or collective labour-intensive mineral extraction, formal and informal, with limited capital investments using basic tools and simple portable machinery.

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Efforts by state institutions and civil society organizations to 'formalize' the informal sector have taken many forms with relatively isolated entry points in the chain from production to consumption. The argument of this paper is that future research and design of policy mechanisms on the contrary needs to take into account the inter-linkages of actors and material flows within the complex intertwinement of the two ASM sectors; the formal and the informal. Further, that state action is inevitable but not necessarily fumbling as valuable experiences have been gained from previous institutional arrangements.

We maintain that a valuable starting point for these endeavours is the somewhat forgotten findings on interlocking markets within the literature on rural dependency relations, barriers for poverty eradication and agricultural development (see for instance [6,15]). Interlocking markets dominate the relationship between tenants (or smallholders), landowners and traders in agricultural inputs, crops and consumer goods. They emerge when relatively poor farmers or landless households have no other possibility to access credit (physical inputs or money) than to borrow from a local trader (buyer of agricultural products and seller of consumer goods) or the landowners who employ them. In some contexts the buyer and the landowner may even be the same person, which further strengthen the dependency relation and asymmetric power positions. Poor and resource-less people are often linked to landowners via the sale of labour services and the direct exploitation in terms of low payment that may be even higher if the former also depend on credit from the latter.

These types of relationships increase an already existing unequal relationship between the poor and other groups in rural communities. Usually the conditions set by the buyer/lender will reflect the unequal position so that farmers are receiving a lower price on products and/or pay a higher interest rate than those prevailing on the 'market'. The markets for products and credit in the 'wider economy' are more or less inaccessible for the farmer, for instance due to lack of competition among buyers and the absence of formal credit markets with transparent conditions and interest rates. The inaccessibility may be due to distance or inadequate infrastructure but basically it is a question of 'remoteness' and lack of alternatives – created by social, economic or political entry barriers and geography. Typically, the farmers become more and more dependent on the buyer/lender and the possibilities to break out of the relations are increasingly reduced – the farmer becomes caught up in a vicious debt-trap.

The benefits for the lender (and employer/trader) are several [40]. Firstly, the creation of interlocking markets may offer the lender an opportunity to overcome social customs that otherwise reduce exploitative practices in one of the markets viewed in isolation, for instance demanding exorbitant interest rates. Secondly, it is a way to reduce costs of commercial interactions. One purpose is to reduce 'potential risk' in imperfect credit markets (where collateral may be insignificant) by incorporating purchasing activities. Another purpose is to curtail moral hazard inherent in agricultural production – shirking by workers and tenants is reduced as their ability to repay depends on the total output of production. And finally, a purpose is to avoid the spot market for labour in times where demand is high: both search costs and uncertainties are lowered. As a corollary, avoiding shirking and reducing transaction costs at the same time means that transactions can be profitable even at going market rates.

With this brief outline in mind, this paper offers an overview of the traditional entry points in the formalization debate and goes into more depth with a quite recent contribution that direct the focus of intervention towards the buying segments further downstream the ASM chain. This serves as a basis for a detailed description of the territorial and organizational configuration of the present ASM gold chain in Tanzania, the object of study for the above mentioned contribution. We document that there is limited scope and potential in the proposed 'Private-Public Partnership' institution as a major 'end point' of the ASM chain in Tanzania is constituted by Indian jewellery traders in Dar es Salaam. Further, we use this finding as an incentive to examine the Ghanaian ASM gold chain to bring forth the strengths and shortcomings for the regulatory potential of a long-functioning state institution. Finally, we discuss the lessons learned from these two cases in order to suggest possible formalization paths for other African ASM gold chains.

Formalization: entry points in the ASM gold chain

Discussions on formalization of ASM have besides the obvious prerequisite of ASM legalization [45,27] predominantly concentrated on two main issues. The first is improved ASM working practices; both for the sake of miners and the environment. This body of literature addresses the numerous challenges pertaining to working practices of ASM operators, including occupational risks, a degraded environment, and miners' limited access to credit, appropriate technology, and institutional support. In order to address these challenges, most observers recommend cleaner and sounder mineral extraction (e.g. safer mine shafts, use of protective gear), vocational training courses (e.g. in the use of appropriate mining and extraction techniques), and adequate institutional support (e.g. access to credits and appropriate technology and provision of mining-related extension services) [22,26,31,41]. The dominant part of this literature, however, focuses on the use of mercury in ASM of gold, its harmful environmental and human health impacts, and possible ways of reducing its consumption.

The second is ASM operators' access (or lack of access) to mineralized land. Evidently, such formal access is essential for the broader acceptance and development of ASM. Many observers (e.g. [3,35,37]) point out how rich deposits are more often than not discovered by local populations or small-scale prospectors. Nevertheless, the deposits tend to end up in the hands of large-scale mining (LSM) companies [20]. ASM operators encounter numerous bottlenecks when attempting to access ASM licences, e.g. insufficient geological knowledge, shortage of capital, relatively high costs (e.g. various fees), and bureaucracy [12,23,27,42]. Moreover, the restricted capacity of mining authorities to timely inform ASM operators on procedures for