Occupying the Margins: Labour Integration and Social Exclusion in Artisanal Mining in Tanzania

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ABSTRACT

This article examines the marginal position of artisanal miners in sub-Saharan Africa, and considers how they are incorporated into mineral sector change in the context of institutional and legal integration. Taking the case of diamond and gold mining in Tanzania, the concept of social exclusion is used to explore the consequences of marginalization on people's access to mineral resources and ability to make a living from artisanal mining. Because existing inequalities and forms of discrimination are ignored by the Tanzanian state, the institutionalization of mineral titles conceals social and power relations that perpetuate highly unequal access to resources. The article highlights the complexity of these processes, and shows that while legal integration can benefit certain wealthier categories of people, who fit into the model of an 'entrepreneurial small-scale miner', for others adverse incorporation contributes to socio-economic dependence, exploitation and insecurity. For the issue of marginality to be addressed within integration processes, the existence of local forms of organization, institutions and relationships, which underpin inequalities and discrimination, need to be recognized.

INTRODUCTION

Artisanal mining in Africa is widely associated with marginalization.[1] Evidence from across the African continent suggests that the scale of

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1. There is no internationally agreed definition of the term artisanal mining (ILO, 1999). A commonly made distinction is between artisanal miners and small-scale miners, with the former employing manual, low-technology methods, and the latter having some degree of mechanization. This distinction often refers not only to differences in technology or production levels but also to legality and illegality, where 'artisanal miner' implies an individual without a mineral licence (Holloway, 1998). This article will use the term 'artisanal' to broadly refer to people extracting mineral resources based on small operations with low technology levels; for reasons that will become clear in the case study, this encompasses miners with and without a mineral licence.

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artisanal mining activities has grown over the last thirty years, stimulated by structural adjustment and economic liberalization (Dreschler, 2001; ILO, 1999; Labonne, 2002b; UN, 1996). However, this form of mining generates negative reactions from governments, mining experts, and civil society groups, and is typically peripheral to economic planning for livelihood improvement and mineral sector development (Labonne, 2002a).

These reactions, and the economic status accorded to artisanal mining, are in part a response to poor production methods and the social and environmental problems associated with artisanal activities (Hilson, 2003; ILO, 1999). More fundamentally, they are due to the connotations of artisanal mining with the margins of legitimacy, taking place in social and geographical arenas away from state control (De Boeck, 1999; Richards, 1996; cf. Heemskerk, 2001). This frequently leads artisanal miners to be associated with illegality (Duffy, 2005; Hilson and Potter, 2003) and stereotyped as criminals, a common label for marginalized people in the informal economy (Tripp, 1997).

For at least the last forty years, artisanal mining has been segregated from mineral sector development in African countries. Holloway (1998) describes how, between the mid-1960s and mid-1970s, many governments were intrinsically hostile to the mineral sector. If mining was addressed, planning tended to focus on industrial-style development of 'world class' deposits, marginalizing local artisanal and small-scale miners. Thus, into the 1980s, small-scale and large-scale mining were viewed as incompatible, leading the former to be separated in law and often repressed in practice. By the mid-1980s, however, the failure of segregated mining regimes was becoming evident; it left unresolved the challenge of finding workable strategies for artisanal and small-scale mining. This leads Holloway (ibid.: 40) to argue that 'by the early 1990s, a consensus was emerging that a policy of treating artisanal miners as a marginalised sector that could be, in effect, legislated away, had failed'.

Policy change was signalled at a prominent United Nations seminar in Harare in 1993, which emphasized the economic importance of small-scale mining and endorsed the need for all mining (large and small-scale) to be incorporated into one legal system. Two years later, at the World Bank 'Roundtable on Artisanal Mining', speakers called for actions to transform informal artisanal mining into formal mining operations by enabling miners to gain legal and transferable rights to mineral titles (Suttill, 1995). The challenge then became how to integrate artisanal miners within mainstream economic, fiscal, regulatory, managerial and legal regimes (Nöetstaller, 1994).

This thinking on integration was reflected in new strategies by many African governments in the 1990s, which sought to reinforce the positive aspects of artisanal mining and minimize the negative dimensions through legalization, attention to environmental concerns, establishing institutional and administrative frameworks, promoting technical assistance, and changing commercialization patterns (ECA, 1993). By the end of 1995, some thirty-six African countries had legalized artisanal operations or were in the process of doing so, and had established specific administrative and technical institutions with a view to providing assistance to artisanal and small-scale miners (Traoré, 1998: 20).

More recent work has built on this foundation, with influential research and initiatives on mining in Africa emphasizing gender and labour issues (ILO, 1999); sustainable livelihoods and poverty reduction (Labonne, 2002b); integration based on sustainable development principles (MMSD, 2002); and better quality of life, environment and governance through sustainable communities (Hobbs, 2005). From different perspectives, this body of work has assumed the need to integrate artisanal mining populations into formal economic, social and political structures in order for development to occur.

The United Republic of Tanzania (URT) is one of a number of African countries that have addressed artisanal mining within policy and legislation. The current policy and legislative framework for the mineral sector was introduced in the 1990s (URT, 1997, 1998) and reflected a new approach to development heralded by economic liberalization and the withdrawal of the Tanzanian state. This was part of major reform, which transformed the state from the main investor and developer of mineral resources into that of 'regulator, promoter, facilitator and provider of services' within a sector dominated by private capital (Mutagwaba, 1998: 51). Whilst the Tanzanian mineral policy promotes resource development based on large-scale private mining operations, it is also sympathetic to small-scale mining, as embodied within a vision of small-scale miners as successful micro-entrepreneurs with 'formalized' mineral claim-holdings and 'regularized' mining operations (URT, 1997, 1998).

The move from segregation to integration of artisanal miners into mineral sector development in Africa raises important issues for research. It is generally accepted that integration of artisanal miners into formal institutional, regulatory and legal structures is positive, if it can be achieved. However, the difficulties emerging from integration processes would suggest that we need to problematize the issue (see Gore, 1994). Land and mineral resources are associated with material inequality due to unequal control over value producing assets (Tilly, 2006: 21). This raises the question of how inequality, and by implication social differentiation and power differences, affects processes of integration and in turn what impact integration has on existing inequalities.

Furthermore, because governments are seeking to transform what are, in many places, dynamic artisanal mining operations that have developed in isolation from state institutions (usually illegally), attempts to integrate artisanal miners necessarily build on the pre-existing institutions, relationships, practices and knowledge that have enabled people to gain access to mineral resources, organize production and market their produce. This begs the question of how 'formal' institutions (based on organizational structures, contracts and legal rights) come together with 'informal' institutions (based on social organization and social relationships) within processes of integration. In this respect, one might ask, what are the consequences of trying to integrate groups of people who have developed particular ways of exploiting mineral resources in marginal environments where state capacity to regulate and establish supportive institutional structures is limited and market linkages are imperfect?

The case study presented here focuses on processes of social exclusion to examine how integration of artisanal miners has taken place in Tanzania through the formalization of artisanal mineral rights. It draws on qualitative social research from a study conducted over a period of ten months in 2004, including primary and secondary data gathering and consultation processes.[2] The research was undertaken in three locations of Mwanza Region in Tanzania: Nyarugusu and Mgusu Villages in Geita District (gold producing areas); and Mabuki Village in Misungwi District (a diamond producing area).[3] Before turning to the case study, however, processes of social exclusion emerging in artisanal mining in Africa are explored.

MARGINALIZATION AND SOCIAL EXCLUSION IN AFRICAN ARTISANAL MINING

An informed understanding of processes of social exclusion and inclusion is important for any examination of integration in artisanal mining. Such an understanding throws light on the dynamics of processes of marginalization which affect access to mineral resources, as well as illuminating the way that people respond to interventions seeking to integrate artisanal mining into formal resource management structures, forms of productive organization, and legal regimes.

Social exclusion can be defined as 'a process and a state that prevents individuals or groups from full participation in social, economic and political life and from asserting their rights; it derives from exclusionary relationships' (Beall and Piron, 2005: 8). As a concept, social exclusion has different uses depending on theoretical tradition and policy context. Its history is attributed to French social thought and a concern with the relationship between

2. The methods used for the qualitative social research included thirteen focus group discussions incorporating a range of participatory techniques, fifty-eight semi-structured interviews, observations, and six detailed case studies.
3. The decision to conduct research on gold and gemstones in these areas reflects the fact that they are by far the most important minerals for artisanal and small-scale mining in Tanzania, and Geita District is estimated to hold the highest population of artisanal miners in the country. Reliable figures are not available but Mutagwaba, an experienced Tanzanian mining engineer, estimates that gold accounts for 50 per cent and gemstones 30 per cent of all artisanal and small-scale mining in Tanzania (Mwaipopo et al., 2005).

members of society and the nation state. In this respect, Lenoir (1974, cited in Beall, 2002: 45), who is credited with popularizing the term, argued that people who are marginalized from formal labour markets and welfare benefits experience a rupture of the social bond that constitutes the undergirding of the rights and responsibilities of citizenship.

In recent years, the concept of social exclusion has been applied to analyses of deprivation in developing countries (de Haan, 1998; UN, 1995). There is some scepticism regarding its utility for southern social policy discourses, given its roots in western notions of citizenship (Kabeer, 2002). Nevertheless, it is held to be useful for broadening poverty analyses and focusing attention on the causes and consequences of social disadvantage (Beall and Piron, 2005). In particular, it can facilitate an understanding of the way in which people are deprived of different things at the same time (in the economic, social and political spheres) and of how social relations, processes and institutions underpin this deprivation (de Haan, 1998). In a literature review on social exclusion in sub-Saharan Africa, Gore (1994: 7) suggests that the relationship between social identity and entitlement to resources and other social goods is central to processes of social exclusion, tied to a concern with the relationship between poverty and exclusion. Three dimensions of social exclusion in Africa emerge from Gore's review that can be applied to the context of artisanal mining.

The first dimension relates to the exclusion of marginalized social groups from access to and rights over mineral resources: this may involve the classification of artisanal miners as 'illegal' due to poor availability of land, insufficient institutional support, and complicated licensing systems (Hilson and Potter, 2003), or it may encompass the expansion of large-scale mining operations into regions previously occupied by artisanal miners (MMSD, 2002). In reality, these processes are often bound together, with the state favouring large-scale mining interests, and artisanal miners put at a disadvantage through poor education, poverty and life circumstances. This suggests the significance of understanding how, in the context of rapid change to rural livelihoods in Africa (Bryceson, 2002) local competition, conflict and power are shaping the dynamics of the institutionalization of rights and entitlements to mineral resources (cf. Benjaminsen and Lund, 2002).

In a review of anthropological work on mining, Ballard and Banks (2003: 300) describe how in Melanesia land acts as an arena for the way people identify themselves as communities, in the process generating strategies of inclusion and exclusion in relation to outside mining interests. This raises interesting issues concerning access to mineral resources and social exclusion in the context of land rights in Africa. It has been argued that a defining feature of African landholding systems is their social embeddedness (Peters, 2002: 48), and the fact that land rights are ambiguous and negotiable (Berry, 1989; Moore, 1998). However, with competition and conflict around mineral resources and mining operations, both large and small-scale, the ambiguity of land rights may be challenged with implications for processes of social exclusion (cf. Peters, 2002). Multinational mining companies, for example, are able to draw on the power of the state and bureaucratic processes to acquire exploration and prospecting licences for land over which 'informal' claims may have been held by artisanal miners (Dreschler, 2001). Likewise, well-connected people may manipulate land rights to their advantage by acquiring titles to artisanal and small-scale mineral claims, or by selling titles to large-scale companies.

Such challenges to the ambiguity surrounding 'informal' claims over mineral resources in many parts of the continent indicate the need to view the exclusion of marginalized social groups from access to mineral resources in terms of their relationship to elites and elite capture of natural resources (Gore, 1994). This is apparent in peaceful civil contexts where control over extractive resources is tied to the power of bureaucratic elites, such as in Nigeria (TWNA, 2001) and Tanzania (Chachage, 1995; Gibbon, 1995); it also emerges in contexts where 'war-lordism' and factional control over mining interests is linked to conflict, such as in Sierra Leone (Richards, 2004), Angola and the Democratic Republic of Congo (De Boeck, 1999).

This leads us to the second dimension of social exclusion, which relates to the relationships between artisanal miners and elites and to power relations governing access to, and control over, resources. Exclusion in this sense refers to the way people are incorporated into artisanal mining on terms that engender dependency and subordination.[4] Typically, this is articulated through people's social identity (age, gender, ethnicity, place of birth, and so on) and the position they occupy in artisanal mining operations by virtue of this identity. This is not simply a passive, subordinate dimension, however: some people may actively exclude themselves, drawing on the ambivalence and marginality associated with artisanal mining to transgress boundaries, generating employment and a sense of identity that enables wealth and power to be accrued (De Boeck, 1999; cf. Day, 1999). For the state, a key challenge is how to bring these 'risky' people within its domain of control.

Gore (1994) refers to the 'ambivalence of exclusion' and draws on Berry (1988), who examines exclusionary productive practices and exploitation. Berry argues that 'if access to the means for production is predicated on social identity, then the definition of property rights hinges on the demarcation of social boundaries, and exploitation operates through the subordination of some people within access-defining groups (kin, clients, apprentices, etc.), rather than complete exclusion' (ibid.: 67). Similarly, one could follow Wood's (2003) analysis of the 'Faustian bargain' with people investing in present 'dependent security' through incorporation into social arrangements, such as patron–client dependencies, that discount the future. Work on adverse incorporation is significant in the context of artisanal

4. The idea of a dualism, which links social exclusion to processes of inclusion on adverse terms, has been developed in literature on gender and development (see Jackson, 1999).

mining because labour relations involving forms of patron–client ties, apprenticeships, unequal gender relations and dependent kin relations are widely prevalent and involve an interplay of support and dependency that is often exploitative and focused on the present, exposing vulnerable people to insecure futures.

Exploring the issue of social identity and inclusion further, the literature points to the significance of age (particularly in terms of child labour) and gender (often implying 'women'; for example, Dreschler, 2001). Child labour in artisanal mining activities varies according to context, mineral and type of operation; it is also gender differentiated. Nevertheless, the children involved are often from chronically poor families and their inclusion is widely associated with multiple forms of deprivation (Hentschel et al., 2002; ILO 1999). Women's involvement in artisanal mining varies according to place, culture, type of mineral, patterns of group labour and socio-economic factors such as poverty status (ILO, 1999; Ofei-Aboagye, 2001). Some have found a successful niche which they exploit (for instance in service activities) or are breaking traditional boundaries (to become owners of mineral titles, for example). Nevertheless, evidence from across the continent suggests women in mining are often severely disadvantaged and highly dependent on more powerful others through ties of gender, affinity, kinship and patronage. Women may also experience indirect exclusion through poor representation in mining communities, a lack of access to mineral resources, and discrimination in compensation cases for loss of land. Such challenges may be faced alongside domestic violence, transformations in marriage, and the consequences of disease—all associated with employment in the mining sector (Ofei-Aboagye, 2001).

A focus on female and child labour features prominently in the work of the International Labour Organization (for example, ILO, 1999). However, social identity and forms of integration and exclusion can be subtle, multifaceted and subject to change, with different aspects combining to produce specific types of dependency (Jackson, 1999). Indeed, equating gender with 'women in mining' disregards evidence of the way men's involvement in mining is linked to complex changes in identity and exclusion within the context of rural transformation (De Boeck, 1999; Richards, 2004; Walsh, 2003; cf. Fisher, 2002; Silbershmidt, 2001). Mining itself can be a means for men to find new forms of inclusion within non-traditional social networks and new locales. Typically, such change to male identity emerges out of migration, with population movement for mining labour and concomitant transformation in rural areas having a long history in southern Africa (Godoy, 1985). This gender differentiated migration continues to play a part in urban and rural social change, identity formation and processes of exclusion and inclusion in mining today (Ballard and Banks, 2003).

Migration and the open, 'frontier' nature of artisanal mining generate arenas in which people accrue wealth and power often through clandestine activities (Richards, 1996). In this context, social and spatial marginalization is used to create opportunities and transgress boundaries in ways that lead to self-exclusion, as mentioned above. These transgressions emerge symbolically in associations between artisanal mining and 'hot' (Walsh, 2003) or 'bitter' money (Shipton, 1989) for conspicuous consumption (women, consumer goods, alcohol), and in the 'taming' or 'domesticating' of diamonds and dollars to 'capture the urban space' (De Boeck, 1999) or 'create global connections' (Richards, 1996). Although little is published on the subject, artisanal mining is also an area in which women are able to transgress boundaries and accrue wealth. In Tanzania, women's success in the service industry has fed into their recent ability to finance mining operations (Mwaipopo et al., 2005).

The third dimension of social exclusion concerns governance and people's ability to take part in decision making or access institutions related to management of mineral resources. This form of exclusion is imprecisely conceptualized within mining literature but relates to the way institutional rules defining exclusionary and inclusionary practices, and the sanctions through which they are enforced, are being transformed in the context of globalization and liberalization-related changes in the role of the state and market (Gibbon, 1995). In turn, this is connected to issues of citizenship rights and people's involvement in governance processes affecting their ability to make a livelihood from mineral resources. Questions pertinent in this area include whether and how artisanal miners and mining communities have a voice and role in decision making about changes which affect their entitlements to resources, and whether they have access to institutions responsible for natural resource management and service provision. More broadly, it is important to understand how institutions related to the mining sector structure the relationship between macro-economic change, on the one hand, and the changing circumstances of individual miners, mining households and communities, on the other (see Kabeer, 2002, citing IILS, 1997: 15).

Of course, the three dimensions of social exclusion emerging from the literature on artisanal mining in Africa that have been identified here do not fall into neat categories, and may be bound together within an individual miner's experiences of deprivation. They are also subtle and dynamic when set against the background of rapid change in rural and urban economies across Africa. Thus, modifying Gore (1994: 6), it can be suggested that structures of exclusion in artisanal mining are characterized by multiple sites of inclusion/exclusion, based on membership of a variety of shifting groups, categories and networks, in interaction with institutions like the state and market. With this in mind, the rest of this article explores social exclusion in the context of gold and diamond mining and government policy on integration in Tanzania.

ARTISANAL MINING IN TANZANIA: THE SETTING AND POLICY CONTEXT

Everything in Mgusu settlement speaks of its role as a mining community. Day breaks to the sound of 'crushers' churning like cement mixers to grind gold-bearing ore; men pass each other on the path between the settlement and the pits as one shift in the mine ends and the next one begins. As the day gets hotter and the air fills with dust, people process the gold — young men tipping buckets of sludge down sluices covered in sacking; boys rhythmically stirring the ground ore with mercury in shallow pans; old women sitting in the dust, crushing rocks with lump hammers; and girls selling tea from kettles balanced on their heads.

In another part of the region, Mabuki Village, small mounds of soil and shallow rectangular pits stretch across the landscape where people mine for diamonds. Some of the pits are empty, because no diamonds have been found or because the miners are busy elsewhere. In other pits, groups of two, three or four people, mostly men but also some women, work the hard soil with hand tools, raking and sieving to look for diamond-bearing gravels. Beyond the pits lies a flat, open and well-cultivated landscape, interspersed with large farmhouses and signs of cattle-keeping. Vehicles can be heard passing on the main road that runs through the village to the nearby town.

When evening arrives in these areas, generators start up, music blares from speakers; small wooden shops sell their wares — mining equipment, essentials and consumer goods. Girls with makeup and alluring clothes serve in the bars and around snooker tables. Video halls open to show international football matches, and men congregate to talk, eat and drink.

From these scenes, we get a glimpse of the practices, labour processes, objects of production, and everyday life activities that come together to constitute a field of action for artisanal mining in Tanzania. This field of action is the subject of Tanzanian government policy and legislation which aims to integrate artisanal miners into a modernized mining sector, as described above. By enabling miners to gain legal and transferable titles to their mineral claims, referred to as 'formalization', the government intends to transform apparently disorganized artisanal mining activities into 'organized operations', a process described as 'regularization' (URT, 1997: 8). This is in keeping with wider government initiatives to modernize land legislation and policies laid down during the socialist era, enabling people to access land through purchase and allocation by government authorities (URT, 1999, 2002). The effect of these processes is to emphasize formalization and *de facto* privatization (through titling) of tenure over mining land. Since implementation of the 1997 Mineral Policy, support for small-scale operations has been reiterated, and attempts to reduce the bureaucracy in licensing small operations and mineral trading are considered to have been successful (URT, 2005).

Government policy to transform the artisanal mining sector has coincided with the rapid growth of large-scale mining interests and foreign investment by companies engaged in prospecting, exploration and mining operations (Gibbon, 1999). This means that the interests of artisanal miners, large-scale mining companies, and local communities are increasingly colliding, with government being called upon to intervene in disputes. These processes contribute to a dynamic situation of change in entitlements to mineral resources and in the ability of different interest groups to make claims over these resources.

Against this background, mineral sector development in Tanzania is highly controversial. Three areas of controversy stand out. First, the entry of corporate foreign mining interests has generated considerable national debate regarding processes of economic liberalization, privatization and the role of foreign investment (Gibbon, 1999; Kulindwa et al., 2003; Lange, 2006); much of this debate centres on the argument that Tanzania gets little in return for being a mineral rich nation. Second, the relationship between large-scale and small-scale mining generates disputes over mineral rights that are linked to allegations of human rights abuses (Gibbon, 1999; LEAT, 2003). Third, artisanal mining arouses controversy due to associations with a host of social, environmental and economic problems, including child labour, tax evasion, pollution, environmental degradation, and the spread of infectious diseases such as HIV/AIDS and bilharzia (Dreschler, 2001; Jennings, 1998).

Within the controversies associated with mineral sector development, some civil society and media voices support the artisanal miners, arguing that foreign capital is undermining the legitimate interests of Tanzanian citizens. Others demonize miners and characterize them as uncontrollable, lawless people who pose a threat to Tanzanian society. These opinions and social and political controversies form a background to the way the government responds to artisanal mining issues and how processes of social exclusion are perpetuated.

Access to and Exclusion from Artisanal Mineral Claim-holdings

Current legislation (URT, 1997, 1998) promotes the titling of mineral claims by artisanal and small-scale miners through acquisition of a Primary Prospecting Licence and Primary Mining Licence.[5] Evidence suggests that while some individuals benefit from formalization processes, others are excluded from gaining a title to resources over which they hold 'informal' claims because of the way labour and access to minerals are organized; these people become incorporated within mineral claim-holdings as subordinates

5. A Primary Prospecting Licence (PPL) is granted for a period of a year to search for gemstones or minerals and can be renewed; it does not confer exclusive rights over a piece of land. A Primary Mining Licence (PML) confers on the holder exclusive rights to carry out mining operations in an area for five years and may be renewed or transferred to another named holder (URT, 1998: Section 5, Division D).

to the main claim holder with no right in law, as will be described below.

It is helpful to outline how titles to mining land emerged historically. Roberts (1986) describes how the origins of current labour divisions and licensing for artisanal and small-scale miners developed in places like the Lupa Goldfields, where Africans successfully agitated to be granted rights to minerals. By the end of the colonial era, a system had emerged whereby individual small-scale Tanzanian miners could be granted a prospecting licence. In practice, this meant that one individual would be granted a licence for a claim that was informally 'owned' by an association of shareholders. This formed the basis for a system of share-holding in which workers were paid through food and a percentage of the produce, share-holders (who might also be workers) gained a percentage, and the main licence holder accrued the major share (up to 50 per cent). In the 1970s, this system was further complicated by the development of the practice of sub-leasing, whereby a company could hold a licence for an area but leave the organization of production to individuals, who were given the non-legal status of 'pit owners' and who sold their produce to the company (Chachage, 1995).

In Mwanza Region, artisanal gold and diamond mining expanded in the 1970s and 1980s at a time when it was mainly illegal, leading people to establish 'informal' rights to mineral resources through laying claim to the portion of land in which they had excavated a pit (for detailed accounts, see Chachage, 1995; Kulindwa et al., 2003; Mutagwaba et al., 1997). This was the case in the field study sites of Nyarugusu, Mgusu and Mabuki. In Nyarugusu and Mgusu, the gold mining areas, the 'informal' nature of claims was to change in the late 1980s. In 1989, Dar Tardine Tanzania Ltd (DTT), a local representative of a Swiss-owned mining company, was given a licence for exploration in Mwanza, Singida and Mara Regions. DTT did not undertake production but employed 'sub-contractors' who bought gold from artisanal miners (in line with the Mineral Act of 1979). This is important because it later placed sub-contractors in a powerful position *vis-à-vis* other miners.

DTT's contract was revoked in the early 1990s due to allegations of fraud, leading the Mwanza Regional Miners Association (MWAREMA) to take over the task of supervising artisanal miners. The government subsequently encouraged these artisanal miners to apply for licences in their own right. Several of the ex sub-contractors of DTT were well placed to secure licences, with many having an education, assets, local knowledge and political connections. This enabled individuals to register a title to land upon which others were operating pits; some of these pit owners were unaware that the formalization process was taking place, or ignorant of its significance. For example, in Mgusu Village, there are currently two active claims that were registered by one sub-contractor (an ex-ministry official, now deceased, with connections to the District Commissioner) in the early 1990s. These claims were made over the heads of many hundreds of 'pit owners' working the area and created complex disputes over access to mining land, contributing to apparently intractable conflicts in the area today.[6]

The situation in the diamond mining area, Mabuki, is different but also demonstrates how processes of formalization are rooted in historical events within a local context that have benefited certain individuals at the expense of others. In the 1980s, several thousand miners had informal claims over portions of diamond bearing land (see Madulu, 1998; Mutagwaba et al., 1997); in 1987, the area was placed under the caretakership of the Mwanza Regional Government which later divided the land into small blocks consisting of shallow alluvial reserves suitable for artisanal mining, and large blocks that needed mechanical equipment for excavation into harder materials, intended for investment by small/medium-scale operators. Alongside land designation, officials proposed that artisanal miners should form an association to apply for a mining licence and collective marketing; to this effect, an association of artisanal miners was formed (*Ushirika wa Wachimbaji Wadogo Wadogo*).

Rationalization of diamond blocks was intended to bring 'order' to the area.[7] However, government actions were interpreted by artisanal miners as removing them from their existing informal claims to plots that were barren. This caused extensive grievances and allegations that they were seen as 'spoilt [bad]' miners (*wachimbaji haramu*). Artisanal miners continue to refuse to peg claims within the allocated area, thus a system of local claims not formally recognized by government is still operating. Working alongside these 'informal' artisanal miners are four licence holders with larger blocks and some mechanization: two Tanzanians of 'Arab' or 'Asian' ethnic origin, the Chairman of the Chamber of Mines, and a Kenyan business woman. Periodically, they complain to the zonal mining office that artisanal miners are encroaching on their land and obstructing mining operations.

The *ad hoc* nature of institutional formation and the way claims have become socially embedded in the local organization of artisanal mining (which will be elaborated in the following sections) constitutes what Cleaver (2002) refers to as 'institutional bricolage'.[8] Cleaver's analysis highlights

6. The situation in Mgusu Village is complicated by the fact that artisanal miners live in a national forest reserve and process their gold in a river that runs through the reserve. The artisanal gold mines also border a large-scale open-caste gold mine, Geita Gold Mine, owned by a multinational company with whom there have been periodic tensions. According to the Forestry Act (URT, 2002) settlement is not permitted in a protected area of this category and water sources are protected. For almost twenty years the gold mining settlement was regarded as illegal, with intermittent interventions by state officials to minimize abuse of the forest. State involvement has, however, been contradictory because other sections of government have provided health and education provisions in the village and the village government has been recognized by officials visiting the area. In 2006, villagers were granted permission by the government to register the settlement as a formal village.
7. Interview, Mwanza Region Zonal Mining Officer, July 2004.
8. Bringing together 'informal' claims based on culture, social organization and daily practice, and 'formal' claims based on organizational structures, contracts and legal rights (Cleaver, 2002: 13).

how the content and effect of institutional arrangements around access to mineral resources can generate types of social exclusion that are obscured by focusing on the form taken by organizational structures and legal rights over these resources (Mutagwaba, 2005; Tan Discovery, 1996). Because government ignores the way local institutional formation has developed around mineral resources, and the impact of marginalization on capacity to change, the process of formalization conceals social and power relations that make people's access to these resources highly unequal (Chachage, 1995: 72). In the case of Mwanza Region, formalization is rooted in historically specific and locally situated relationships and actions, which have enabled certain wealthier individuals to acquire a mineral title, to the exclusion of others.[9] Such elite capture of resources through knowledge of procedures and relationships is nothing new in sub-Saharan Africa. To change the terms of engagement would entail a redistribution of power that government officials are unlikely to accept without major incentives; this is a major barrier to integration in ways that can achieve positive outcomes for the majority of artisanal miners. Although beyond the scope of this article, these processes suggest the need to understand how access to mineral resources converges with broader socio-economic differentiation and growing inequalities in land and wealth holding in Tanzania (cf. Ellis and Mdoe, 2003; Odgaard, 2002; Peters, 2002: 59).

Ruptures in Access to Mineral Resources: Tensions between Large and Small-scale Mining

The powerlessness of many artisanal miners and the changes heralded by processes of formalization within artisanal and small-scale claim-holdings, need to be located in the wider context of expansion of large-scale gold mining concessions,[10] which have substantially impacted on artisanal miners' claims to mining land. Here the focus is on access to mining land, specifically, but increasing demand for land in general in Tanzania also puts pressure on the availability of land for mining development (Odgaard, 2002).

Expansion of concessions by large-scale companies has been taking place from the early 1990s, with the Lake Victoria Goldfield (across Mwanza Region) attracting several multinational companies. Prior to their arrival, there were a large number of artisanal operations over which people held 'informal' claims to land and mineral resources. However, in accordance with the Mineral Act (1998), these operations were not recognized and land was

9. A body of work on livelihood diversification in sub-Saharan Africa shows how the wealthy are able to diversify into lucrative 'non-farm' income-generating opportunities, which could include mining, while poorer people are excluded by a range of factors associated with an 'asset poverty trap' (see Barrett et al., 2001: 326; Reardon, 1997).
10. This section refers exclusively to gold mining, because large-scale diamond mining companies operate in Shinyanga Region, south of the study area.

re-allocated by the Ministry of Energy and Minerals. Some people who held a formal title received compensation but the majority were excluded. As a consequence, conflict has arisen between mining companies and artisanal miners: examples include controversial evictions at Bulyunhulu in 1996 (Gibbon, 1999), and re-allocation of artisanal operations for Geita Gold Mine in the late 1990s. Similar conflicts between artisanal miners and large-scale companies are found around the world (Andrew, 2003).

For those artisanal and small-scale miners in possession of a mining licence, the 1998 Mining Act confers the right to renew, transfer and mortgage their mineral titles. Ostensibly, this is in the interests of artisanal prospectors and miners. However, when people are poorly educated, have financial problems, no experience of transacting property, and little geological knowledge, they can be exposed to exploitation from both other miners and from mining companies, particularly when these companies are operating outside 'best practice'. For example, when a foreign company was prospecting around Nyarugusu Village in the early 2000s, some people saw it as opportunity to profit through sales of a mineral title or compensation for farming land or crops; examples emerged of sales for relatively small amounts of money, or access granted for prospecting but mineral titles being unwittingly transferred. As Odgaard (2002) has argued in relation to land tenure in Tanzania, and Andrew (2003) recognizes with respect to conflicts over mining land worldwide, negotiation processes may not take place on equal terms, with access to bargaining power and other socio-economic factors shaping success in terms of quantity and quality of land or mineral resources.

The practice of sub-leasing has important consequences in terms of exclusion from mineral resources because the ability to transfer mineral titles has opened the way for claim holders to sell their title to large-scale investors and, in the process, displace people working within these claims. Because the government does not recognize sub-leasing, people threatened with displacement can be rendered extremely vulnerable. For example, gold reserves at Mgusu Village have attracted the interest of a number of medium-scale international mining companies who have entered into negotiations with the main local claim holder. Negotiations have, to date, been thwarted. Nonetheless, the insecurity of this situation renders many people living in the area at risk from a multitude of problems that affect household livelihood security, such as theft, interpersonal conflict, health problems, and poor access to markets (Mwaipopo et al., 2005).

Thus, the way in which foreign mining companies have been granted concessions has led some artisanal miners to be excluded from access to mineral resources. This process is by no means straightforward, however: the inability of the state to transform or eradicate previous institutional arrangements, perpetuated through the sub-leasing of land to unlicensed miners, has, in a place like Mgusu, pitted the government against disgruntled individuals demanding a 'legal' share of the ownership of 'informal' claim-holdings. In this respect, Moore's (1998) argument that the ability of the African state to revise systems of land tenure can be frustrated by the strategies of individuals is relevant. The Tanzanian state's attempt to reform mineral resource tenure has become mired in the strategies of local power holders. In the process, people dependent on mining for their livelihoods can be rendered extremely insecure. Taking a longer term perspective, with the entry of large-scale private interests in the mineral sector, rights to minerals and land are being defined in increasingly narrow ways that are leading to long-term exclusion of artisanal miners in many parts of the region (cf. Peters, 2002). As large-scale mining companies have become entrenched in the area, they have the capacity to enforce their rights with the support of the state and to the detriment of 'informal' entitlements held by artisanal miners.

Processes of formalization and the expansion of large-scale concessions thus impact on artisanal miners in Mwanza Region in a variety of ways. As the following section shows, they also perpetuate relations of dependency and inequality as artisanal miners are incorporated into legal small-scale claim holdings.

Processes of Incorporation into Mineral Claim-holdings

Gold and diamond miners in Mwanza Region associate mining with a sense of openness and opportunity. This is reflected in how they describe themselves: *mchoji* (Kisukuma) or *mtafutaji* (Kiswahili) — literally, seeker [of a livelihood] — are common names for 'all those who come to the area without anything and take a pick and shovel and start digging' (gold miner, Nyarugusu Village).[11] The opening up of new spaces for livelihood creation and the 'frontier' sense of opportunity associated with artisanal mining appear to contradict evidence outlined above that the formalization of mineral claims and expansion of large-scale mining concessions excludes people from access to mineral resources. An understanding of the way people are incorporated into the organization of production helps explain this apparent contradiction.

From the perspective of government policy, people working within a licensed claim are 'employees' of the licence holder (URT, 1997). However, this disregards the way licence holders sub-lease their land and act as landlords to others who carry out production. In effect, by being outside narrow regulatory categories, an ambiguous space is created in which people operate in the margins between legitimacy and illegitimacy. In the process, they can be included within licensed operations on highly insecure and exploitative

11. The 'openness' of artisanal mining to newcomers is far removed from, for example, an occupation such as beekeeping in western Tanzania, in which access to resources is based on established social institutions through relations of kinship and affinity, with knowledge being handed down through generations, and success depending on long-term acquaintance with a specific locality and natural environment, in effect restricting access to outsiders (Fisher, 2000, 2002).

terms. The complexity of labour relations and the organization of production within a claim-holding mean that people cannot simply be defined as 'employees'.

To explore how large numbers of people become adversely incorporated within a legal small-scale claim holding, we can use an example from Nyarugusu Village, following the discovery of gold on an idle claim in 2004. By means of mobile phones, news of the discovery spread rapidly and hundreds of people flocked to the area. The claim holder engaged the services of assistants. Within two weeks, there were almost 200 shallow pits, along with temporary shelters, service providers and transporters, although a month later, the number of operating pits had dropped to about fifty after the surface gold (*sesa*) had depleted. In the meantime, the licence holder started to live 'the good life', consuming excessive quantities of alcohol and spending extravagantly. By his own account, he did not have the resources to develop the claim; opening the operation to adventurous miners was a way to reap rewards without investment.

Within the claim, pits were managed by groups of pit owners, some of whom were residents of the local village; others came from outside offering investment (money, equipment, food, labour, and so forth). For example, one pit owner was a man who owned two PMLs in Shinyanga and had a small amount of money to invest. His team was formed on arrival at site: while the pit owner provided the capital needed to run the pit, his colleagues worked underground. The proceeds were distributed equally, minus 30 per cent of the raw ore to the licence holder, and the costs provided to support the operations, which went to the pit owner. Members of the pits under this man's control were given food and 30 per cent of the product daily. In addition, the claim holder made each pit pay TShs 500 (approximately US$ 1) per sack of raw ore (about 50 kg) to cater for 'unforeseen situations' such as mining accidents. The guards were also paid a bag each from every pit for each workshift (24 hours), then TShs 700 (US$ 1.40) was paid to the processing area, and TShs 500 for crushing and amalgamation of each sack.[12]

In this context, the institution of the 'pit owner' is particularly significant for an understanding of processes of adverse incorporation, bringing together 'formal' and 'informal' claims over mineral resources. Pit owners rent a portion of the mining concession, organize labour, provide tools and equipment and supervise production. There are differences between pit owners in terms of their socio-economic status, relating to whether an individual has capital and equipment or must rely on sponsorship from 'shareholders' (*wanachama*); nonetheless, all pit owners work in insecure conditions given

12. With some variation, payment is based on a share system operating according to the amount of gold produced: up to 50 per cent of realized production is taken by the claim holder; 20 per cent goes to the pit owner(s) (or, in the case of the few more complex small-scale operations run directly by the mine owner, split between the manager, mine foreman, supervisors and guards); and 30 per cent is divided amongst the mine workers. For specialized tasks a specific payment is made either in ore or cash.

that they have little or no right in law. In addition, local mineral dealers and other businessmen or women may sponsor pit owners on terms that can be highly exploitative, particularly when someone fails to obtain gold.

For artisanal diamond mining, people informally 'own' separate pits, working in small groups and using hand-tools. Women do not own pits but they may be co-workers with their husbands. Production and revenue from diamond mining is sporadic and is, in principle, divided equally between members of a pit (although a woman's share may be taken by her husband because men sell the diamonds). In gold mining operations, the pit owner employs mine workers who are given different tasks, with work carried out by pit gangs working in shifts using hand tools (picks, shovels, chisels, sledgehammers), although there is some mechanization (such as compressors and jackhammers). In addition, there are specialists involved in mineral processing (crushers, grinders and experts in gold recovery), people who reprocess the gold tailings, and service providers (food and drink vending, transportation, trading, and so on). Here, as in mining itself, there are complex labour divisions.

Cutting across labour divisions in both gold and diamond mining areas are socio-economic differences and power relations that reveal the level of differentiation in the sector and the ways in which poor people may be incorporated or excluded on the basis of their social identity (gender, age, disability). In gold mining operations, for example, mine workers are able bodied men, typically in their late teens or twenties, while younger boys carry out processing tasks related to cleaning and amalgamation. Women provide services such as food and drink (as well as prostitution and bar work off-site). Not all women are poor, by any means; some have become wealthy from backing mining operations or running bars, hotels and shops. Indeed, women with capital are increasingly financing mining operations compared to a decade ago, when taboos restricting their involvement in mining were more prevalent (Mutagwaba et al., 1997); even today, prejudices remain around women's roles in mining areas. Amongst the poorest people are those who manually crush rocks or reprocess tailings — often boys from broken households and impoverished or elderly women. Within these groups, stories of extreme hardship and non-payment for labour are common.

The licensing process and wider government policy assume that artisanal miners are a homogeneous group with similar licensing requirements. In fact, the sector is highly differentiated: according to mineral type, scale of operations, geographical location, miners' socio-economic backgrounds, and individuals' social identity and role within the labour process. Thus, in practice, the system favours small-scale operators with education, assets and experience of interacting with officials. In formalizing mineral titles and seeking to integrate miners within formal institutions, the government focuses on the claim holder who becomes the significant individual to target for consultations, information sharing and technical support; other people are seemingly 'invisible' (cf. Haraway, 1988). These 'invisible' people can be highly mobile, moving in and out of formal claims through the practice of sub-leasing, a process that aids elite capture of mineral resources precisely because people identify themselves as temporary, and the state has difficulties coping with floating populations.

Thus, the acquisition of a formal title to a mineral claim feeds into processes of integration that can be highly exploitative in ways that, by dint of not recognizing existing forms of organization, inequalities or social differentiation, can be reinforced by the state. One may ask why people continue to work on such exploitative terms: in interviews, very poor people involved in gold mining repeatedly stated that there is work to be had and the sector offers better opportunities for earning on a regular basis than other options. This is less true of diamond mining; here finds are sporadic, labour exploitation less evident, and people more dependent on other occupations. For many, there is the hope that present status may lead to a better position in the future (cf. Berry, 1988) or that self-exclusion can be an opportunity to acquire wealth through clandestine activities such as prostitution or illicit trade.

Governance, Access to Institutions and a Voice in Decision Making

The final dimension of social exclusion being investigated here is the restricted access to institutions responsible for mineral resource management, which may result in artisanal miners in Tanzania having little or no voice in decision making that affects their lives and livelihoods. For many people who rely on income and employment from artisanal mining, but who are not successful claim holders, channels to articulate concerns or access institutional support are limited. This is particularly the case for certain social categories, such as chronically poor women, elderly people (for instance, those who have fled due to witchcraft accusations), and impoverished children. In this respect, although existing processes of integration have to some extent incorporated claim holders into decision-making and communication processes, they have done little to bring out the 'silent voices' in artisanal mining (cf. CGP, 2005).

Mining activities in Tanzania fall under the responsibility of the Ministry of Energy and Minerals. Administration of most sectors — health, education, water, natural resources, lands — is devolved to district level under a district executive development committee.[13] However, the mineral sector, including revenue generation and budget allocations, remains in the hands of central government.[14] In districts with extensive mineral resources this implies that potential revenue is closed to district

13. The Local Government Reform Programme was instituted in 2000 with the aim of streamlining the institutional framework for effective service delivery.
14. See Phillips et al. (2001) and Lange (2006) for details of the fiscal regime.

planners (Lange, 2006),[15] and artisanal mining is divorced from wider district planning concerns, with mining officers often isolated from district-level counterparts.

For people living in a mining settlement, not only are district mining officers remote and licensing processes difficult to access (despite recent simplification), but they may be excluded from adequate access to service provision, markets and civil society participation due to the structure of district level planning, through lack of awareness of needs and through weak endogenous organization (cf. CGP, 2005: 4). With an estimated half million artisanal miners across Tanzania[16] and few mining officers, the capacity of the latter to handle demands is limited, while other district level officials may dismiss mining communities as outside their responsibility.[17] Thus district officials tend to become involved in artisanal mining only when a serious problem has developed, for example around law and order or the outbreak of an epidemic.[18]

Decentralization processes and district level planning in Tanzania are fraught with problems and offer no panacea for difficulties faced by mining communities. At the same time, the administrative organization of the mineral sector generates an institutional environment that hinders development within these communities (Ellis and Mdoe, 2003: 1380). Significantly, the fact that artisanal mining is isolated from other sectors at district government level also impedes the government's drive towards integration for artisanal miners.

The culture of authority within the mining sector also serves to marginalize people in mining communities. Decisions tend to be made without consultation by officials anxious to encourage foreign investment and support the development of the large-scale mining industry. These decisions are then conveyed as a *fait accompli* to artisanal miners. Communication processes themselves are poor, and technically trained mining officers often do not have skills needed for community engagement. Furthermore, and importantly, government officers tend to target claim holders for any communication, assuming they speak on behalf of other miners or will pass on information. As we have seen, this ignores power differences and, in the process,

15. Several large-scale mining companies offer significant community development programmes, but they are not obliged to do so and the programmes tend to be 'philanthropic' in orientation.
16. Estimates of the total number of artisanal miners are notoriously hard to establish. A figure of 550,000 people based on a 1995 World Bank-funded baseline (Tan Discovery, 1996) has been widely quoted: however there are questions over this figure and other baseline information is limited (Nöetstaller et al., 2004: 23). In particular it is hard to discern whether statistics refer to direct employment in mining or indirect dependence on the sector: data are also lacking regarding the impact of change introduced by the 1998 Mining Act.
17. Based on interviews with district planning officials (Geita and Misungwi) and discussions at a stakeholder workshop in Geita Town, July 2004.
18. At the level of village government, involvement of officials tends to relate to taxation, byelaws and dispute resolution.

generates mis-information, fuelled by allegations of bribery and corruption. These features can contribute to the magnification of conflicts over access to mineral resources, particularly when people have no access to fora for conflict resolution.[19]

Institutional barriers to incorporation in the mineral sector are reinforced by weak civil society organization. All regions with mineral exploitation have Regional Miners Associations. Bad planning and management, poor technical facilities for members and lack of funding sources have all been cited as major handicaps to these associations (Dreschler, 2001: 78). In addition membership is mainly for claim holders, some of whom have done well through their organizations, which can act as gatekeepers for donor project funding. Some miners have started forming smaller local associations to demand the right to exist and express grievances against discrimination. However, the capacity of these local groups in Mwanza Region is very restricted, and the government has not sought to enhance it.

Non-government organizations working at the national level tend to avoid engagement with artisanal mining issues, due to a combination of political difficulties, prejudices, and problems associated with carrying out community development amongst mobile populations. A notable exception is the Lawyer's Environmental Action Team (LEAT), which plays an important national advocacy role on behalf of artisanal miners. At a regional level, the research in Mwanza Region only located one NGO, PovertyAfrica, with micro-finance initiatives in mining communities. Such civil society work is rare, although there is some trade union organization for artisanal miners.[20] Disregard for artisanal mining communities by NGOs has also been found elsewhere in Africa (Labonne, 2002b). As a consequence, opportunities are lost for community development to address deprivation based on social exclusion, to help give people a voice to express their concerns, and to enable groups discriminated against on the basis of their social identity to participate more equally in mining related labour.

It is apparent that the more successful small-scale claim holders are targeted by the government and have the status, social identity and legitimacy to make their voices heard, articulate demands and seize opportunities for asset accumulation, including those from externally-funded projects which tend to target this section of the artisanal mining community.[21] For many others, the structure of resource management institutions, the culture of officialdom, poor communication processes, limited fora for conflict resolution, and weak forms of self-organization, combine to reinforce exclusion, in particular for the chronically poor, from political representation, access

19. See Cleaver (2002) with reference to barriers of articulation in Tanzania.
20. Jennings pers. comm., January 2004.
21. This can be clearly seen in Nyarugusu Village where the most organized and successful small-scale miners (many in the leadership of the local miner's organization) have been the beneficiaries of a succession of donor funded projects.

to institutional support, and a voice in decision making that affects their lives.

CONCLUSION

Artisanal mining is widely associated with marginalization and illegality in sub-Saharan Africa. In response to the many social, environmental and economic problems this leads to, and due to the need to rationalize control over mineral resources in the context of the expansion of large-scale mining concessions, African governments and international donors have emphasized the importance of integrating artisanal miners within formal legal, institutional and economic structures. This article has shown how an emphasis on integration can have unintended consequences and negative impacts within a mining population. To appreciate these consequences, it is important to understand local institutional and organizational formation, and to be aware of existing inequalities, social differentiation and power differentials. Starting with the assumption that artisanal miners are a homogeneous group with equal access to resources obscures these differences.

Some artisanal miners in Mwanza Region have done well for themselves, being by no means poor or socially excluded, but these people are few in number. For the majority, a lack of property ownership and entitlement to mineral resources intersects with forms of deprivation that are enhanced by labour divisions and power relations within artisanal mining. Because the Tanzanian state does not recognize the pervasive *modus operandi* of local organization, institutions and labour practices in artisanal mining, government attempts to transform the mining sector or reduce exploitation for particular categories of people (such as children) are undermined.[22] For those who have excluded themselves and actively use their marginalized status to gain a livelihood, the government is then faced with the challenge of facilitating inclusion — a challenge that current integration processes do not address.

In this respect, the particular form of organization that exists within artisanal mining in Mwanza Region means that 'formal' mineral claims based on legal bureaucratic mechanisms and 'informal' claims based on local access to mineral resources and labour practices are bound together. This creates an ambiguous space in which artisanal miners can operate both within and outside of the law: a space that, on the one hand, enables people to gain employment and income from artisanal mining (particularly gold mining), but on the other hand, perpetuates exploitative labour relations, insecurity and deprivation related to social identity and wider socio-economic inequalities.

22. In one place where interventions around child labour have apparently met with some successes — Merelani Tanzanite mines — the government has addressed the issue of subleasing, giving pit owners direct control over their mines (Mutagwaba, pers. comm. July 2004).

Around this space other forms of exclusion cluster — exclusion from access to service provision, from a voice in decision making about mineral resource management, and from community development through civil society mobilization. These forms of exclusion and barriers to integration have been reinforced through the decentralization process and wider politics of central government wishing to retain control over mineral sector development and revenues.

This case study shows that the concept of social exclusion is helpful for 'analysing' the impact of processes of integration and for highlighting underlying causes of mining-related deprivation. This can lead to a nuanced and differentiated view of how inequalities within mining populations have affected people's responses to processes of integration. In the context of rapid change to rural livelihoods and control over mineral resources, focusing on social exclusion helps us to understand how legal institutions, existing practices, and local power relations influence the dynamics of the institutionalization of new rights over access to mineral resources in Africa.

While evidence from the research has underlined that integration can be highly problematic, this article must not be read as a call for perpetuating the isolation and segregation of marginalized communities. Instead, we need to consider how integration can be interpreted and marginalization addressed. With mineral resources known to produce inequalities, development specialists, mining experts and government planners must focus on socio-economic differentiation and power disparities. All parties need to take into account the complexity of local forms of organization, institutions, knowledge, social relationships and claim-making processes, and how these underpin the way that artisanal miners have successfully developed a niche to exploit mineral resources; this niche forms the basis from which artisanal miners respond to externally instigated change.

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