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Dispossession, displacement and resistance : artisanal miners at a gold concession in South Kivu, Democratic Republic of Congo

Abstract:

This article reports on an empirical study of the relationship between artisanal and industrial mining at the Twangiza gold concession in South Kivu Province, Democratic Republic of Congo (DRC). The setting is a post-conflict context where artisanal mining activities have supported livelihoods for several decades, but where the arrival of a multinational company, with explicit backing from the national government, has caused dispossession and displacement and altered local power relations, leaving former artisanal miners with few alternatives for making a living. Although Congolese law recognizes artisanal mining and policies have been proposed to formalize and support this sector, reality is often very different and artisanal miners frequently clash with industrial enterprises. This article argues that, in order to understand the dynamics underlying these clashes, closer attention needs to be paid to the practices and discourses of the artisanal miners themselves: how do they conceptualize notions such as property, legitimacy and livelihood, and what is their outlook on development? The empirical analysis shows how miners in Twangiza resist dispossession by the multinational corporation in both words and actions.

Keywords: artisanal mining; large-scale mining; gold; dispossession; displacement; resistance; Democratic Republic of Congo

1. INTRODUCTION

This article reports on an empirical study of the relationship between artisanal and industrial mining at a gold concession in South Kivu Province, Democratic Republic of Congo (DRC). First it provides a brief overview of the literature and presents the principal argument (Section 1). Subsequently, it sketches the context of mining in the DRC and at the Twangiza concession in particular (Sections 2 and 3). The article further addresses the issues of dispossession, displacement and reintegration of artisanal miners, as well as the resistance this has prompted from miners (Sections 4 and 5). Finally, it considers how miners act and speak out against dispossession, by gauging their perceptions of notions such as income, work and livelihood (Section 6).

In recent years, the literature on artisanal and small-scale mining (ASM) has grown substantially, drawing a multifaceted picture of ASM activities. A much debated issue, for example, is individuals' motivation to engage in the sector. Hilson (2009: 3) differentiates in this context between 'push' and 'pull' factors. The 'demand-pull' view claims that people opt to go into mining in order to generate higher economic returns. This view is informed by accounts of 'rushes' and fortune-seekers, and it calls attention to possibilities for accumulation and investment (Bush, 2009; Grätz, 2009) and rational risk/reward calculations (Jønsson and Bryceson, 2009). Research in Tanzania, for example, has confirmed that incomes from small-scale mining are significantly higher than farming incomes (Bryceson and Jønsson, 2010: 7), and that working in mining or in mining-related services reduces the likelihood of household poverty (Fisher et al., 2009: 34). The 'distress-push' view argues that people engage in artisanal mining mainly because they are desperate to escape poverty and compelled to search for alternative livelihoods (Heemskerk, 2003; Tschakert, 2009). In some regions, ASM has emerged as the only viable activity in the wake of structural adjustment, deteriorating employment opportunities and increasing pressure on land. Smallholder farming has become less attractive as a livelihood, and artisanal mining may either substitute for revenues from agriculture or complement them, for example as a seasonal activity (Andrew, 2003; Hilson, 2010 and 2011; Banchirigah, 2008; Banchirigah and Hilson, 2010; Maconachie and Binns, 2007).

In other regions, artisanal mining has become a permanent segment of the rural economy; a "deeply-rooted industry […] which offers a range of economic opportunities for people from all walks of life" (Hilson, 2009: 3; see Banchirgah and Hilson, 2010; Hilson, 2010). Indeed, mining not only provides livelihoods for the miners themselves, but also for a range of actors working in related services such as transport, catering, leisure, prostitution, tool-making and petty trade. In this manner, mining boosts local and rural economies and generates substantial economic and social returns (Bush, 2009: 61). In line with the latter view, mining may be seen not just as a temporary livelihood, but as a lifelong career, as Bryceson and Jønsson (2009) have demonstrated in Tanzania. They argue that career paths in ASM follow from the miners' own organizational constructs and individual decision-making, which guides them towards labour specialization.

Beyond individual livelihoods, it is also argued that ASM could provide significant benefits to governments through taxation and access to foreign exchange (Hentschel et al, 2002: 52). The supposed condition for this to materialize, however, is that ASM should be formalized, i.e. that it should be registered, organized and controlled by a central state system (Siegel and Veiga, 2009: 51). While legal provisions for ASM activities exist in many countries, including the DRC, as will be demonstrated in this article, in practice such activities often remain 'illegal' (i.e. not in accordance with the law) or 'informal' (unregistered). One important reason for this is that few zones are legally open to artisanal mining. As Hilson (2009: 2) states in an article on ASM in Sub-Saharan Africa, "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".

The present article argues that a first clue to understanding these clashes lies in legislation and policies. As suggested above, large mineralized areas have been given in concession to industrial companies, leaving little room for artisanal miners. This has been the result of the liberalization and privatization trends incorporated in the African mining codes since the 1990s (Campbell, 2009). The DRC Mining Code (2002) similarly promotes large-scale mining and foreign direct investment (Mazalto, 2005). Whereas there are some legal provisions for ASM, in practice these are rarely implemented, and they provide little tenure security. However, for a thorough understanding we must go beyond legislation and policies, and seek explanations for the observed gap between law and practice. These explanations often lie in state capacities to enforce the law, and in incentives for miners and other actors to comply with it. Also, ASM and LSM actors tend to have distinct conceptions of development, property and legitimacy. Industrial companies like to insist that they hold legally acquired permits and that state law is on their side. Local communities and artisanal miners, on the other hand, assert that they possess a traditional right to work the land, as they seek recourse to customary and other sources of law (Hilson 2002; Andrew 2003). In this struggle, large-scale actors are advantaged not only by the abovementioned policies, but also by their superior financial resources, better access to information and technology, and so on. This marginalizes and frustrates the artisanal miners, which leads Carstens and Hilson (2009) to explain the tensions between ASM and LSM in terms of grievances. They focus a specific case in Geita district, Tanzania, but also make reference to cases in Ghana, Mozambique and Katanga in the DRC (ibid: 309)[1]. The present article conceptualizes the discourse and practices of artisanal miners in terms of protests against 'accumulation by dispossession' (Harvey, 2005: 145). In this respect, the approach is comparable to that taken by Bebbington et al (2008: 901), who interpret the resistance of local communities against mining companies as protests "*against* development oriented towards economic growth, and *for* development as a process that fosters more inclusive (albeit smaller) economies". In the case of Twangiza, this will transpire from how artisanal miners have resisted dispossession in their actions and discourse, as discussed in Sections 5 and 6.

Our analysis is based on fieldwork in four goldmines in South Kivu (Twangiza, Kamituga, Lugushwa, and Mukungwe) and in Bukavu, the provincial capital, carried out between 2008 and 2012. It relies on both qualitative and quantitative data. Qualitative data were gathered at the four sites, and they include individual and focus group interviews (translated from Kiswahili and the local Mashi language) as

[1] For more details on the Tenke Fungurume case in Katanga, see Custers and Nordbrand, 2008. For another case in the DRC, in the district of Ituri (northeastern DRC), see IKV/Pax Christi, 2011.

well as numerous documents, such as letters, court rulings, statements, agreements and photographs. The quantitative data were collected through a survey of 217 individuals in the same four goldmines in October-December 2011. These data were analyzed using descriptive statistics.

2. SETTING THE STAGE I: MINING, THE DRC GOVERNMENT, AND BANRO

The DRC is known for its huge reserves of mineral resources, including over 10% of the world's copper and 49% of global cobalt reserves, particularly in the Province of Katanga (USGS, 2009). The Eastern provinces, including South Kivu, also hold important reserves of tantalum (coltan), cassiterite (tin) and gold, though these are hard to quantify, as very few geological surveys have been carried out. Since the colonial era, the Congolese economy has relied extensively on the industrial extraction and exportation of raw materials (Bezy et al, 1981; Geenen, 2011a). But intermittent economic crises (from the mid-1970s onwards) and violent conflicts (1996-2003) have seriously affected industrial output, resulting in a boom in artisanal mining, the yield of which is often smuggled out of the country via 'parallel' or informal trade networks (Geenen, 2011a).

In 2002 and 2003, the Kabila government introduced a revised Mining Code[2] and attendant Mining Regulations[3], differentiating between three production modes: industrial mining, small-scale mining and artisanal mining. Industrial companies can apply for research and exploitation permits. They are subject to an "internationally competitive" fiscal regime (World Bank, 2008: 19) with an expected effective rate of taxation of 46%[4]. Yet the World Bank (ibid: 20) also acknowledges that, in practice, companies often pay much less and are able to negotiate more favourable tax rates and exemptions with the government[5]. Mazalto (2005) also refers to clauses in the Code that allow companies to take advantage of more liberal fiscal regimes. For the government, this is a strategy to attract foreign investors, and, although companies may pay relatively little in taxes, it provides the state, as well as individual politicians, with rents that are easier to collect than those from artisanal mining (Geenen and Hönke, forthcoming).

The law does recognize artisanal mining in 'artisanal exploitation zones', or areas where technical and economic factors make the site unsuitable for industrial exploitation[6]. In these zones, individual miners need to buy licences and to comply with all regulations on security, hygiene, water use and

[2] Loi n° 007/2002 du 11 juillet 2002 portant Code Minier (Mining Code).
[3] Décret n° 038/2003 du 26 mars 2003 portant Règlement Minier (Mining Regulations). For a detailed analysis of the laws and policies, see Mazalto, 2009.
[4] This puts the DRC in the upper-mid range of all mineral producing countries.
[5] Many contracts with mining companies have been criticized for cotnaining terms that are highly disadvantageous to the Congolese state; see for example Global Witness (2007) for a discussion of the review process for contracts.
[6] Mining Law, T. 4, Ch. 1, Art. 109.

environmental protection[7]. Cooperatives can apply for research and exploitation permits. But the law also provides for a zone to be closed down if "the factors justifying its creation cease to exist", or if a "new deposit necessitating large-scale exploitation has been discovered"[8]. In this case, an industrial company may drive out the artisanal miners (within a 60-day period) and take over the concession to commence (semi-)industrial exploitation. This provision clearly decreases tenure security for artisanal miners.

Several initiatives have been taken to formalize and better organize the artisanal mining sector, by international as well as national actors[9], but most such attempts have proceeded with difficulty and have failed to achieve the expected outcomes. Moreover, many of the legal provisions mentioned above are simply disregarded. This may be attributed partly to a lack of knowledge on the part of the miners, and partly to the absence of incentives to comply and to the weak implementation and enforcement capabilities on the part of the state and its public services (see also Pact, 2010: 5). In the case of South Kivu Province, fourteen potential artisanal mining zones have been identified by the Provincial Mining Administration and the Mining Registry. Seven have been officially recognized by Ministerial Decree[10]. They cover a total surface area of 258 '*carrés*'[11] or 219 km2. Rather problematically, no sound geological surveys have been carried out in these zones and some are difficult to access[12]. The law requires miners to form cooperatives, but the administrative procedures are cumbersome, while the model articles for cooperatives are based on colonial examples, making them unsuited to today's reality[13]. By 3 June 2011, forty-six cooperatives representing almost 60,000 members had submitted their files, sixteen had received a favourable response from the Provincial Mining Ministry[14]. These files then needed to be sent to the national administration in Kinshasa.

Since the official end of the last war, a number of industrial enterprises have shown renewed interest in South Kivu's mineral wealth. Data from 2011 show that forty-two companies had acquired research permits[15]. The first company to obtain an exploitation permit and commence gold production was the Canada-based multinational Banro Corporation[16]. The fact that they have chosen to operate in the gold sector comes as no surprise, as the average gold price increased by almost fourfold between 2003 and

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[7] Mining Law, T. 4, Ch. 1, Art. 111 and 112.
[8] Mining Law, T. 4, Ch. 1, Art. 110.
[9] There is a whole range of initiatives aimed at stopping the trade in 'conflict minerals' (for an overview see Verbruggen et al, 2011), but also broader reform initiatives for mining sector governance, such as the 'growth with governance programme' (World Bank, 2008) and the World Bank and DFID-sponsored 'Promines' (Pac, 2010). For a critical discussion, see also Geenen, 2012.
[10] Provincial Mining Administration South Kivu, Annual Reports, Ministerial Decrees
[11] 1 carré = 84,955 ha.
[12] Provincial Mining Administration int. 05/10/2012
[13] Meeting Gecomiski, Générale des Coopératives Minières au Sud-Kivu, 05/02/2011.
[14] Provincial Mining Administration, Relève des coopératives minières enregistrées ayant sollicité l'agrément par le biais de l'administration des Mines du Sud-Kivu, 03/06/2011.
[15] Cadastre Minier, Liste des permis de recherche actifs au 1 septembre 2011.
[16] See http://www.banro.com/s/Home.asp.

2010 (PWC 2011: 22), making the sector very attractive to foreign investors. Their exploitation permits cover more than 2790 km2[17], and they hold prospecting licences for an even larger area. In 2005, Banro started intensive exploration in Twangiza, a mine situated in Luhwindja chiefdom, about 40 kilometres southwest of Bukavu. In November 2011, the first gold ingot was produced. However, the procedure that the company followed for obtaining a permit and becoming operational dates back further in time and therefore requires some contextualization[18].

Banro acquired the titles as a majority shareholder in Sakima ('Société Aurifère du Kivu-Maniema')[19] on 6 May 1997, just a few days before the Mobutu regime was overthrown by Laurent Désiré Kabila[20]. Having taken power, President Kabila took measures to make the mining sector more independent from multinational companies and to centralize the mining rents for the benefit of the new regime (Kennes, 2005). On 31 July 1998, he therefore stripped Banro of its mining titles and created a new state-owned company, known as Somico ('Société Minière du Congo')[21]. The mwami (customary chief) of Luhwindja, Philemon Naluhwindja, was appointed as Director of Somico. Two days after Somico's creation, the new RCD ('Rassemblement Congolais pour la Démocratie') rebellion broke out, and government lost control over large parts of South Kivu. Access to the goldmines became the stake in a highly politicized and militarized setting[22]. Banro was unsuccessful in trying to gain control over the concession and subsequently the goldmines were alternately occupied by one of the armed groups involved. Then Mwami Naluhwindja was murdered under mysterious circumstances on 20 December 2000 in France. Since his son was only a child, Naluhwindja's younger brother Justin was appointed as the interim chief. The latter maintained close relations with Somico, but the company would never be able to invest. Instead, mining in Luhwindja remained artisanal, which was also beneficial to the mwami, as will be illustrated in due course.

On 16 January 2001, president Laurent Kabila was assassinated and succeeded by his son Joseph, who soon turned to collaborate with Banro. In the midst of war, this could be seen as an attempt to re-establish control over the region (Geenen and Hönke, forthcoming). However, the new president also wanted to avoid having to pay USD 1 billion to Banro as a result of a lawsuit that the company had successfully filed with the United States Federal Court[23]. The rapprochement between the two parties

[17] Divided as follows: 1432 carrés for Twangiza Mining, 748 carrés for Lugushwa Mining, 902 for Kamituga Mining and 203 for Namoya Mining. Another small part of their concession lies in Maniema Province

[18] For a more elaborate context, see Geenen and Claessens, 2013 and Geenen and Hönke, forthcoming.

[19] 93%of the shares belonged to Banro, 7% to the Zairian state.

[20] Kabila had launched the AFDL ('Alliance des Forces Démocratiques pour la Libération du Congo') rebellion in the East. His aim was to defeat the incumbent Mobutu regime with the help of neighbouring Rwanda.

[21] The President issued four decrees: Decree n. 101 annulling the Decree that created Sakima, Decree n. 102 annulling the Agreement of 13 February, Decree n. 103 creating Somico and Decree n. 104 nominating Somico's president.

[22] During the war, Banro sided with the RCD rebels, who were supported by Rwanda and Uganda, both of whom had turned against Kabila. Somico allegedly supported local defence groups, Mayi-Mayi, and FDLR (Rwandan Hutu rebels, 'Forces Démocratiques pour la Libération du Rwanda') and was backed by the Kabila government.

[23] The case was first presented to the ICSID, a member of the World Bank Group that is an international institution for arbitration of legal disputes between international investors: https://icsid.worldbank.org/ICSID/Index.jsp. In 2000, it declared

resulted in a 'gentlemen's agreement', signed on 18 April 2002, whereby the titles to the gold concessions (Twangiza, Kamituga, Lugushwa and Namoya) were restored to Banro[24]. The gentlemen's agreement also extended the duration of the contract from 25 to 30 years and preserved the extensive tax holidays[25]. After 2003, despite the official end of the war, parts of the region remained under control of armed groups.

In 2005, the Congolese national army eventually retook control over Luhwindja. Concurrently, they allowed Banro to move in under protection of special military forces. The government also enforced a change in customary leadership. The mwami's brother Justin was banished to Kinshasa and his widow Espérance M'Baharanyi, now bearing the title 'mwamikazi', was installed by the state authorities as the legitimate customary chief. She has since become the main intermediary between the company and the community and has been successful in attracting business contracts (through subcontractors) and development funds (through the Banro Foundation). Her powerful position has however increasingly given rise to frustration among the population and to opposition from local elites, who feel marginalized. As argued elsewhere, the local elites instrumentalized Banro's arrival to manoeuvre themselves into new, lucrative positions, thereby accumulating economic and political power[26].

3. SETTING THE STAGE II: ARTISANAL MINERS IN THE CONCESSION

In 1975, the mining company operating at the four abovementioned gold concessions abandoned Twangiza because it was no longer profitable. Although legally Twangiza remained part of the concession, artisanal miners moved in and they have worked in alluvial and underground sites, until some of them were closed by Banro. The alluvial sites were situated on the Mwana and Lulimbohwe rivers, which were diverted into small muddy currents to facilitate panning for gold. Underground shaft mining used to be concentrated in Mbwega, Lukunguri and Kaduma. In Mbwega, there were reportedly more than 600 shafts, with an average of 5 to 10 miners per shaft and a total daily production of 1.3 to 1.8 kilograms of gold (OGP, 2008: 29). With respect to the total number of miners in Luhwindja, estimates range from 6,000 to 12,000 out of a total population of 65,000[27]. These were mostly indigenous (about 70%), but there were also miners from other areas, primarily from the neighbouring chiefdoms of Burhinyi, Ngweshe and Kaziba (OGP 2008: 27). The entire monetary economy was built on this activity, as the gold trade at the local market also stimulated secondary activities such as retailing, transport, catering, prostitution and entertainment. While agriculture

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itself incompetent in this case. The following year, Banro turned to the US Federal Court invoking the 'Foreign Sovereign Immunities Act'.

[24] This agreement actually restored all titles and rights to Sakima (of which Banro owned 93%), but also divided the titles. Sakima Sarl now became an entirely state-owned company and retained its right to the tin concessions. On the other hand, Banro, as a private company, retained the titles to the gold concessions.

[25] Avenant n.1 à la convention minière du 13 février 1997, unpublished document, 18/04/2002.

[26] For more details, see Geenen and Claessens, 2013; Geenen and Hönke, forthcoming.

[27] Mwamikazi, Point de presse sur la pétition, 26/01/2012.

remained the principal livelihood (cassava, beans, sorghum, bananas, potatoes) and many households also raised chickens, goats or cows, most of these activities were at subsistence level (OGP, 2008: 21). The trade in primary commodities, clothing and beer was concentrated at the mining sites, and prices at local markets were significantly higher than elsewhere because of high demand and the availability of cash. Hence this may be seen as an example of a context where artisanal mining developed into a 'deeply rooted livelihood', as explained in the introduction.

Similar systems of underground gold mining exist in Twangiza, Kamituga, Lugushwa and Mukungwe, although there are differences with respect to the share of production and taxation by state and non-state services. Generally speaking, it is the so-called 'PDG' ('Président Directeur Général') or shaft manager who initiates mining activities at a particular site. He is the one who hires a team of workers and provides the necessary tools (shovels, chisels, torches and water pumps) and food – and possibly other items – until the shaft can begin 'producing' (i.e. when the team reaches the gold vein). Between five and 150 miners may work in a single shaft, depending on the availability of manpower, the size of the shaft, the phase of exploitation and the expected level of production. The work is done manually, with the aid of shovels, chisels and other small tools. Shaft managers sometimes also invest in machines such as water pumps and compressors. All in all, an underground shaft mining project requires considerable financial input (about USD 1,500 a month on average, according to our survey). In some cases, teams have to work for a year or longer before they succeed in hitting a gold vein. As a consequence, total investment in a shaft may run into the tens of thousands, or even USD 100,000+, before any gold is extracted. Since they have no access to formal credit, shaft managers make credit arrangements with local traders. As argued elsewhere (Geenen, 2011b and 2011c), these relations are well regulated and provide for a delicate power balance. Shaft managers also need a flexible labour force with specialized workers such as 'boiseurs' (who shore up the shaft with wooden trunks), 'foreurs' (who extract the auriferous rocks), 'conducteurs' (who orient and oversee the work) and 'bouts de feu' (who use explosives to open up new shafts). Recruitment is generally based on friendships and (extended) family relations.

As mentioned previously, the Mining Code authorizes artisanal mining only within well-defined zones, and under specific conditions. But due to the state's weak capacity to implement and enforce the law, these conditions are rarely met. Most artisanal miners work under technically illegal conditions. However, the miners themselves legitimise their claims by referring to their 'traditional' rights to the land their ancestors lived and worked on, as mentioned in the introduction. One interviewee in Kamituga put it as follows: "We only take what is ours; it's the land of the Congolese"[28]. Another miner asserted: "We were born here, our parents worked with the company. As

[28] Miner Kamituga int. 04/04/2008.

their children, it is our right to work in these mines"[29]. Another argument to legitimize the miners' claims lies in the relative absence of a state apparatus performing core functions. In 1982, President Mobutu proclaimed a 'liberalization' of gold and diamond mining, thereby giving every Zairian citizen an opportunity to obtain a mining permit (Geenen, 2011a). This move came in response to the intensifying economic crisis, and it was part of a general call upon the population to 'fend for themselves'. As one former miner put it:

> "Mobutu chased away the company and instructed all of us to use our own force; he chased off the white man. [. . .] When the President told us to fend for ourselves, we began to dig for gold"[30].

Today the state is still unable to deliver basic services such as education and health, security and socio-economic development. Consequently, people legitimize their mining activities by arguing they have to survive and make a living[31]. Non-state authorities also have a role to play. In Luhwindja, the customary chief or mwami is heavily involved in artisanal mining, as traditionally he was – and still is in many cases – the allocator and guardian of the land (Geenen and Claessens, 2013). Once a miner has identified a site and has secured funding and labour, he must go and see the chief. A former miner recounted: "I went to the chief and asked him to assign the plot to me, as he was the one who distributed all the sites"[32]. Another interviewee said:

> "I was a veterinary, working in the public administration. But the problems we have with the government: no pay, or very little pay [. . .] The beloved mwami gave me a shaft in Mbwega in 1990"[33].

Miners are required to pay regular contributions to the chief. The latter sends his representatives to collect the monthly tax or 'citore', which usually amounts to the value of one gram of gold. He also levies additional taxes on production, which according to some sources amount to 10% of output, sometimes expressed in quantities of gold, sometimes in centimetres of extracted rock[34]. Although this does not conform to state law, it gives the shaft managers tenure security on account of the perceived legitimacy of a customary title, which is still very prominent in the land tenure system, as explained elsewhere (Geenen and Claessens, 2013). Apart from their contributions to the mwami, miners pay a whole range of official and, even more so, illicitly levied taxes to state representatives, people from the mining administration or 'Saesscam' (the technical service of the Mining Ministry, which supervises and assists artisanal and small-scale miners)[35], military leaders, local leaders, associations and

[29] Miner Kamituga int. 14/04/2008.
[30] Former miner MGL employee int. 08/01/2011.
[31] Former miner Twangiza int. 08/01/2011.
[32] Leader miners Twangiza int. 08/01/2011.
[33] Former shaft manager Twangiza int. 08/01/2011.
[34] Former shaft manager Twangiza int. 08/01/2011.
[35] Service d'Assistance et d'Encadrement du Small-Scale Mining.

cooperatives. Hence, these agencies and individuals also benefit from artisanal mining in its present form, so that they may have few incentives to support the notion of a formalized artisanal mining sector. However, with the arrival of the Banro gold company, the situation in Twangiza and prevailing power relations were fundamentally altered. In the remainder of this article, the focus is on the impact of this event on artisanal mining and miners[36].

4. DISPLACEMENT AND REINTEGRATION

In October 2005, after the government and the national army had retaken control over the area, Banro resumed its exploration programme in Twangiza (Banro Corporation, 2006). They first targeted Mbwega, Kaduma and Lukunguri which they refer to as 'Twangiza main deposit'. Here they planned to build a refinery and an open pit mine. They also assessed the alluvial deposits, and the sediments in Mwana river were deemed to be economically exploitable. On the right bank, on the Luhwindja side, Banro began excavating the alluvial sand with bulldozers for processing at the refinery. On the other side of the river, in the neighbouring chiefdom of Burhinyi, hundreds of miners continued gold panning. However, they were inevitably heavily affected by Banro's upstream activities, whereby water was diverted away from the artisanal miners downstream.

During this early period, Banro faced a lot of resistance from the local population[37]. There had been no real consultation and farmers and miners were being negatively affected by the company's exploration work and road construction. This caused protest and outright violence. The company understood that, in order to secure its own economic and security interests, a negotiated approach was needed. In 2009, it took the initiative to set up a community forum with four working groups, representing the local community in negotiations and decisions over resettlement, compensation and local development. The working group on artisanal miners consisted of eight representatives from Banro, three representatives from the miners, three state representatives[38] and five local NGOs. Among the objectives of their meetings, which took place between November 2009 and May 2010, was the formulation of answers to the questions of how to progressively reduce artisanal mining activities, and how to convert former miners to other professional activities, so as to promote their socio-economic reintegration[39].

The first step to be taken, in early 2010, was the identification and registration of the miners, although this proceeded with some difficulty. Saesscam had been contracted to carry out the registration

[36] In Geenen and Claessens (2013) we focus on access relations and the shifted power of local elites. In Geenen and Hönke (forthcoming) we describe processes of political reconfiguration and company-community relations. This contribution takes a different approach, as it focuses on artisanal miners, their livelihoods and their attitudes towards LSM.

[37] Community leader int. 26/10/2011.

[38] The local state representative, the mining administration, and Saesscam.

[39] Forum Communautaire, 2010. Résumé des travaux du sous-comité en charge de la question des creuseurs artisanaux. Forum Communautaire Consultatif/ Twangiza Mining SARL (Filiale de Banro Corporation), 26/06/2010.

process, but many miners refused to cooperate. They viewed the census with much suspicion and scepticism, because, while it was Saesscam's mission to provide assistance to the artisanal miners, the latter perceived the agency's actions quite differently. Like other state services, Saesscam was commonly regarded as an extractive body, established for the sole purpose of levying taxes[40]. After the first round, just 202 miners had registered[41]. It took several more rounds of field visits for Saesscam to eventually succeed in identifying 903 individuals: 463 in Mwana and 440 in Mbwega[42]. It was decided that the miners who were included in the programme could choose between a job with one of Banro's subcontractors and participating in a professional training and conversion programme.

Late 2010 and early 2011, almost 400 artisanal miners took part in various such professional training programmes offered by local NGOs under the supervision of the Banro Foundation, a development-oriented charity funded largely by Banro itself. Each organization received USD 100,000. The local NGOs in Luhwindja were LAV ('Laissez l'Afrique Vivre'), which provided training programmes in mechanics, petty trade, bricklaying, carpentry and needlework, ADEPED ('Action pour le Développement des Peuples en Détresse'), which focused on a cattle raising project, ADMR ('Action pour le Développement des Milieux Ruraux') for an agriculture project and APEF ('Action pour la Promotion des Enfants et de la Femme') for schooling and professional training for underage children. The selection of these organizations was illustrative of prevailing local power relations: APEF, for example, is managed by the mwamikazi, LAV and ADMR by important members of the Luhwindja elite in Bukavu, while ADEPED is an organization led by a local catholic priest. Another 850 former miners were employed by Banro for a period of 12 to 15 months, corresponding to the period of construction of the refinery[43]. In practice, these men were hired through subcontractors as day labourers, earning around USD 4 per day. One of the companies that provided labour to Banro, Cinamula, is owned by the mwamikazi of Luhwindja. Another, Zuki, is owned by the mwami of Burhinyi. This again illustrates how customary chiefs were able to adapt their position so as to retain a level of control – as a substitute for their previous control over the land and the artisanal mines – and access to rents. This has led to accusations from of enrichment, corruption and nepotism from some population groups[44].

[40] Community leader int. 08/01/2011; leader miners Twangiza int. 08/01/2011; policeman int. 09/01/2011. During a consultation process on artisanal mining organized by the NGO Pact, similar scepticism was raised about Saesscam's technical capacities, material support, financial resources, professional capacities, individual corruption and so on (Pact 2010: 38-39).
[41] Former miner int. 26/10/2011.
[42] Forum Communautaire, 2010. Résumé des travaux, op. cit.
[43] Protocole d'Accord passé entre les comités des creuseurs artisanaux des chefferies de Luhwindja et de Burhinyi et la société Twangiza Mining sarl relativement à l'évacuation de la mine de Twangiza. Unpublished document, 05/06/2010.
[44] Community leader int. 26/10/2011.

Although the training and employment programmes may have brought some relief to former miners and their families in the short and medium run[45], it is not obvious that this will also be the case in the long run, for various reasons. First, the number of beneficiaries was small relative to the total population (an estimated 6,000 to 12,000 miners in Luhwindja). Second, with respect to the selection of the beneficiaries, various sources confirmed that many miners refused to register on the one hand, while on the other people complained about favouritism on the part of the local authorities[46]. Moreover, the programmes might have been aligned more closely with the local labour market and its capacity, for example, to absorb dozens of car mechanics. Finally, one of the programmes has been implicated with the embezzlement of funds[47]. Nonetheless, Banro has continued to consider ways of dealing with the reintegration issue. In 2012, it opened up a credit line for local companies intending to employ former miners. The two projects that have been approved thus far should provide jobs in small agro-businesses for a few hundred former miners (Mining Ministry int. 28/09/2012)[48].

5. DISPOSSESSION AND RESISTANCE

The Protocol of Agreement, signed on 5 June 2010, ordered the effective departure of the artisanal miners from Twangiza main deposit. This process of dispossession affected thousands of miners directly and impacted indirectly on many more individuals. In mid-June, the mwamikazi officially terminated all mining activities in Mbwega, Kaduma and Lukunguri[49], but in practice the miners continued to look for gold in the shafts and on riverbeds[50].

Then, in September 2010, the national government took yet another decision that would heavily affect artisanal miners: it temporarily suspended all artisanal mining in the Provinces of North and South Kivu and Maniema (see Geenen, 2012). President Kabila justified this decision by the continued presence of armed groups at mining sites and the government's limited control over the sector. The Minister of Mining thus decreed that all artisanal activities should be suspended until the sector had been better organized and formalized, and he also announced some 'accompanying measures', including the registration of all artisanal miners and cooperatives, the dispatching of agents from Saesscam and the mining administration in the field, the harmonization of taxes, and the operationalization of central trading centres ('centres de négoce')[51]. The mining ban had some perverse local effects, as demonstrated in Geenen (2012): mining continued, but on a smaller scale and illegally, which was conducive to the involvement of armed groups, the military and the police. The

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45 Former child miners focus group 10/01/2011.
46 Former miners focus group 08/01/2011.
47 Former miners int. 08/01/2011; responsible ADPED int. 10/01/2011.
48 Further research would be required to assess further evolutions and any longer-term effects.
49 Forum Communautaire, 2010. Résumé des travaux, op. cit.
50 Leader miners int. 08/01/2011.
51 Ministère des Mines, *Déploiement des agents des mines et du Saesscam*, 2010.

negative socio-economic impact at the local level was clear to see. Most accompanying measures would not be implemented, chiefly due to a lack of capacities and resources within the administration. Still, the ban was lifted and activities resumed in March 2011[52].

This prompted hundreds of miners to reoccupy the sites of Mwana, Kaduma and Lukunguri in April 2011. In Mwana River, anything between 470 and 900 miners resumed gold panning[53]. In Kaduma and Lukunguri, more than fifty pits were reopened by miners who had forcibly returned to the sites[54]. One miner described it as follows:

> "Banro had closed down Kaduma and Lukunguri, but we retook them by force. We marched, we barricaded the road. Banro tried to drive us out with policemen and dogs. But we told them that whatever action they took, we would stand firm. Should they return now, we will do exactly the same"[55].

Others said:

> "They deceive us. They promise us work and the next day they drive us out. If they were planning to stay, they would offer us contracts. We have no prospect of work. So our only option is to reoccupy this concession. They threatened us with policemen and dogs. We told them that whatever they did, but would never die of hunger! [. . .] We would rather be killed by bullets than starve to death"[56].

So the reoccupation came as a reaction to the lifting of the mining ban, but also to the precarious economic situation. As the company was moving towards the production phase (they produced the first ingot in November 2011), many of the day labourers who had worked in the construction of the refinery and other infrastructure had since become redundant. Almost all of the 850 former miners that had been hired were laid off. The training programmes had also come to an end, but there were few alternative job opportunities. In June 2011, the provincial governor came to the reoccupied sites to appease the situation. He instructed the company to allow miners to continue to work until the government had come up with a solution, which Banro did. However, the government has thus far failed to offer a real solution, as the chief of the local branch of the mining administration acknowledges[57].

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[52] The government promised to further execute the abovementioned 'accompanying measures', but weak capacities and poor resources have delayed their implementation. See Ministère des Mines, *Chronogramme des mesures d'exécution de la decision de levee de suspension des activités miières dans les trois provinces*, 2011.
[53] Chief miners int. 26/10/2011; focus group 26/10/2011.
[54] Miners Kaduma focus group, 07/07/2012.
[55] Miner Kaduma int. 28/10/2011.
[56] Miners focus group 28/10/2011.
[57] Chief mining administration int. 07/07/2012.

This may be seen as yet another example of the lack of legal provisions and the inadequate implementation capacity on the part of the state. The artisanal mining zones that are recognized by law are too few, they are often non-operational and not in the vicinity of Banro's concession. In Bukavu, local NGOs and cooperatives have been lobbying for government to negotiate with Banro over the conversion of part of their concession into artisanal mining zones, with limited success so far[58]. But the Mining Registry is also looking at a number of 'dormant titles', held by companies that have not began exploration work, in order to ascertain whether these too may be converted into artisanal mining zones[59]. Another problem is the poor delimitation of Banro's concession by the authorities, more specifically by the Mining Registry[60]. Official documents contradict each other in this respect, so that ownership disputes over parts of the concession have dragged on[61]. Moreover, the local population claims never to have seen an official document or map clearly marking out the concession boundaries[62]. Consequently, in their perception, Banro is taking over mining site after mining site, systematically abusing its position of power to 'grab land' from the community. This was well illustrated by the following statement of a local chief: "Our problem with the company is that we don't know its limits"[63]. As long as the government fails to clarify these issues, this may be expected to remain a source of tension.

At its other concessions, Banro is proceeding with exploration, which may well lead to further confrontations with local communities and artisanal miners. In Kamituga, a historical mining town of almost 100,000 inhabitants and an estimated 10,000 to 15,000 artisanal miners, the impact of Banro's arrival has arguably been even greater than it has been in Twangiza[64]. The overall conclusion must be that displacement and reintegration need to be managed more carefully than has hitherto been the case, and that closer attention needs to be paid to the position of the artisanal miners, whose views will be analyzed in the next section.

6. DEVELOPMENT AND LIVELIHOODS

In order to assess miners' opinions on artisanal and large-scale mining with respect to development and livelihoods, the 217 survey respondents in our study were presented with a number of statements, with which they could either agree or disagree. The graph below shows that the overwhelming

[58] Cooperative leader int. 26/09/2012.
[59] Ministry of Mines Bukavu int. 05/10/2012.
[60] Chief mining administration int. 07/07/2012.
[61] There is, for example, a dispute over the mine of Mukungwe. A special commission established in August 2012 for the purpose of fixing the boundaries and determining whether Mukungwe was inside or outside Banro's concession (see Geenen and Claessens, 2012).
[62] Community leaders focus group 04/10/2012.
[63] Local chief int. 09/01/2011.
[64] Apart from Kamituga, Lugushwa and Mukungwe (a disputed site; see note 62) there is also the concession of Namoya, which is situated partly in South Kivu and partly in Maniema Province, and which I have not visited. Kamituga has a population of around 100,000, Lugushwa around 30,000.

majority of respondents believe that ASM contributes more to job creation, income generation and livelihoods than LSM, at least in the short and medium run. The level of agreement was highest with the following statement: 'people earn a lot in ASM'. For a proper understanding, it is worth reiterating that the survey was conducted among miners at four goldmines already affected or likely to be affected by Banro's mining activities. In such contexts, it is perhaps not surprising that the level of agreement with statements such as 'ASM has created a lot of employment' and 'ASM is important to the population' was very high: it may be seen to reflect the miners' fears of losing their livelihoods. The response to statements regarding the longer term ('LSM will contribute more to development in the long run') was rather more mixed, though less than 20% of the respondents agreed that all concessions should be given to large-scale mining companies. The prevailing perception was that LSM would not create sufficient employment, as the following quote from a focus group illustrates:

> "How can a company that does not hire people contribute to development? Banro uses machines for everything, even for emptying the toilets! What can we possibly expect from such a company?[65]"

This section does not aim to provide an exhaustive overview of the socio-economic impact of ASM, but rather to offer some insights into issues of work, income and livelihoods in artisanal mining, as compared to industrial mining.

Graph 1. Miners' opinions on ASM-LSM

First, the survey demonstrates a strong commitment of artisanal miners to their activities, with 84.4% having worked in gold mining for longer than five years; 8.6% between 1 and 5 years; and 7% less than one year. This observation may be seen to support Bryceson and Jønsson's (2009) argument that many of the gold miners in Tanzania chose to pursue a career in this sector. In and around the Banro concession, the miners' longstanding involvement with the sector may be explained by the historical importance of gold mining mentioned earlier, as well as by the limited availability or the unattractiveness of alternative livelihood options. The primary motivations of our respondents for choosing to work in gold mining were the following: 40.3% said their primary reason was the 'lack of alternative employment', while 54.6% referred first and foremost to the 'possibility to earn money'. Following the distinction that is made in the literature, we thus observe a balanced mix of 'push' and 'pull' factors. In addition, 5% of respondents cited 'other reasons'. They referred in particular to familial circumstances (parents' death, unemployment of parents) and to the 'freedom' offered by the sector: miners are mobile, ready to move from site to site according to the availability of minerals; they take decisions independently. The responses also indicated that the miners were attracted by the

[65] Twangiza focus group 26/10/2011.

'special atmosphere' at the mining sites, where beer, prostitutes, dance clubs, cinemas, parties and other activities are available. Especially young people believe that artisanal mining offers them an opportunity to break away from their parents' control and to get away from social pressures in their own villages or neighbourhoods.

Artisanal mining is attractive because it generates good money, or at least more money than other activities do. However, the revenues of artisanal miners are extremely volatile. For instance, during the preparatory phase, when small gold particles may be found in excavated rocks and sand, daily production might vary between a few 'mishale' (measure equal to 0.126 grams) and a few 'renge' (measure equal to 1.26 grams) per shaft. In the production phase, which may last anything from a couple of weeks to several months, daily production might reach several 'tola' (measure equal to 11.66 grams) per shaft. The survey suggested that average production for the underground mines reached 344 renge during the 'high production period', 42 renge during the 'preparatory period' and 77 renge during the study period, which was the month of the survey (late 2011) [66]. On the basis of these production data, data on local gold prices, monthly expenses, and the share of shaft managers and ordinary miners, calculations show that net monthly takings during the study period amounted to around USD 500 on average for shaft managers, while all 'ordinary' miners together received a share of USD 785. The average number of workers per shaft was thirty-three, which works out as an average net income of almost USD 24 per month.

This may be compared to the estimated monthly income from agriculture (USD 17), informal business (USD 20), formal business (USD 62) or public administration (USD 25) in South Kivu (Iragi, 2012)[67]. Although agriculture is still the principal livelihood strategy for more than 80% of households in the province, it has become less and less attractive, for different reasons[68]. Historically, there was the introduction of a 'modern' land law in 1973 and the erosion of the traditional land distribution system, resulting in the dispossession and marginalization of peasants, combined with demographic pressure in certain regions in South Kivu (Van Acker, 2005). The wars of the 1990s further undermined customary power, shifted land control towards business and military elites, while insecurity caused peasants to abandon their fields, which impacted directly on food production and consumption (Vlassenroot, 2005: 25). Villagers were forced to flee their homes and to migrate to urban centres, or to the mining sites, where there was money to be made (ibid. and Cox, 2011: 246). Many people, especially women, became petty traders selling all kinds of commodities at local markets. Cox (2011: 245) also refers to a 'profound post-war exhaustion', which manifests itself not only at the social and

[66] The survey was conducted in October, November and December, the rainy season, when numerous shafts exhibit rising ground water, which hinders production.
[67] Calculations on the basis of the 1-2-3 national survey in the DRC. The figures on the informal economy must be interpreted with caution, though, as they are rough estimates based on survey data.
[68] As pointed out in the introduction, ASM literature has drawn attention to the diminishing attractiveness of smallholder farming in different countries.

economic levels, but also in an environmental context, as reflected in claims that 'the soil is tired' and not as fertile as it used to be.

The abovementioned figures seem to suggest that gold mining yields more than alternative livelihood options (particularly agriculture and informal business), but the difference is not all that substantial. Still, under the current conditions, most miners prefer gold mining. One explanation lies in the volatility and unpredictability of the yield in gold mining and the eternal hope to 'strike it rich' (see Geenen, forthcoming). In fact, production depends on a combination of controllable and uncontrollable factors, a mix of experience, skills and luck: the presence and discovery of rich gold veins, the capacity to invest capital, the availability of manpower and technical support, climatic conditions, etc. Consequently, periods of high production alternate with periods of preparatory work and low production. Also, the income from artisanal mining compares favourably with what Banro's day labourers earn (USD 4 USD). Only about 10% of respondents agree that living conditions for LSM workers are better and about 15% would 'accept a job in LSM, whatever the pay' (Graph 1). Another important aspect is the aforementioned notion of 'freedom'. Miners prefer to rely 'on their own strength'[69], whereas day labourers are felt to be entirely dependent upon the company they work for and not to have stable or longer-term contracts anyway. A former miner[70], who started panning for gold at the age of 7, working in underground mining at the age of 12 and trading at the age of 16, was offered a job with Banro's security guards Erinys after Mbwega closed down in 2010. He soon quit the job for the following reasons:

> "The work was hard and not well paid. They first paid me USD 105, then USD 110, and when I got a fixed contract they also paid me USD 5 to support my wife and USD 5 for my child. But it wasn't enough. After two years, I hadn't even been able to buy a chicken or a goat. When I was fired, they gave me a severance pay of USD 130, USD 100 of which I gave to my wife. With the remaining USD 30, I travelled to my brother who is a teacher in Kigali and asked him to help me find a job, but after a month my visa expired and I had to leave. Back home, I found that my wife had invested the money well and was selling beer. So now we live from that income. In the mines, I used to earn much more! Sometimes you went to the pits in the morning and by 10am you had already found a few hundred dollars worth of gold. The next day you may find nothing or, God willing, another hundred dollars worth, and so on. All we ask for is work at a decent salary."

In the light of the above, the question arises whether miners wanted to exit their livelihoods at all, and under which conditions. In response to the survey question of whether they planned to remain in the artisanal mining sector, 83% responded affirmatively. In a follow-up question, the respondents were

[69] Miners Kaduma focus group 28/10/2011.
[70] Int. 09/01/2011.

asked whether they would stay in mining if they could choose freely from a range of alternative livelihoods, without further constraints. Some 52% said they would, whereas 48% indicated that they would leave the industry. The latter figure is quite high considering the manner in which the question was put, and indicates a strong commitment of the miners to their livelihoods. The reasons put forward for exiting or staying were multifarious, as Table 1 shows.

Table 1. Motivation to stay or exit artisanal mining (number of responses)[71]

The reasons given for remaining in the sector tally with earlier observations: the income derived from artisanal mining and the hope of striking it rich. Reference was also made to lengthy experience in the sector and to the fact that there are few alternative livelihood options in this region, or at least none that are equally as lucrative to unskilled workers (see also Geenen, forthcoming). As for the reasons for exiting, the difficult or dangerous working conditions were often cited, as was declining production due to depletion of the deposits. Another prominent reason is the threat posed by large-scale mining.

7. CONCLUSION

Let us conclude with some final reflections on the relationship between artisanal and industrial mining, the conflicts and possible coexistence. Hilson and Yakovleva (2007) make the important observation that industrial and artisanal miners generally do not compete for the same deposits. Industrial mining typically targets deeper veins and makes efficiency calculations on the basis of their costs on the one hand and the volumes and grades on the other. There are also a number of infrastructural conditions that need to be met in order for their operations to succeed, including physical access to the concession and electricity supply. Artisanal miners face lower labour and technical costs, which may make the mining of lower-grade minerals economically profitable to them (World Bank, 2009). However, with their technologies, they are unable to extract large volumes and to mine deeper underground. They therefore target more accessible surface deposits, where relatively small quantities of extracted rocks can generate sufficient grades. They may also have access to more remote sites, in areas where there is no road infrastructure. Hence, it may be possible to divide deposits according to these criteria and to come to land-sharing arrangements[72] or even to land title transfers, which would thus 'formalize' property rights on artisanal mining sites (Clausen et al, 2011: 21). In reality, companies often acquire vast concessions and, after exploration, target only those deposits that hold the promise of the greatest profit, yet they are not prepared to release other deposits

[71] This was an open-ended question in the survey, some responses to which were grouped together. Some respondents also gave several answers, which were split. There were some missing variables due to non-response, mainly among those who did not want to continue working in the industry.

[72] In the case of the Abosso concession in Ghana, for example, land-sharing arrangements have been made. The company has allowed artisanal miners to work abandoned ore bodies or rework company's tailings, and has even provided technical assistance (Andrew, 2003: 121; Aubynn, 2009; Banchirigah, 2008: 36; Hilson, 2002a and b). See also World Bank, 2009.

to artisanal miners (Banchirigah, 2008: 31; Clausen et al, 2011: 21). Under the Congolese mining code, they would moreover not be allowed to do so, although local and international organizations are increasingly advocating these kinds of land transfers[73].

The Banro case in Twangiza illustrates that issues of displacement and reintegration require careful handling (by the company and by the government) in order to avoid feelings of frustration, socio-economic marginalization and even potential violence[74]. In Twangiza, artisanal mining provided a livelihood for a large share of the population. In Kamituga and Lugushwa, where Banro is in the exploration phase, artisanal gold mining continues to be the backbone of the economy. The survey that was carried out at these sites shows that artisanal miners are highly committed to their activities, and that they perceive the impact of industrial mining on work, revenues and livelihoods as rather negative. At the same time, the local economy offers very few job alternatives.

This article has argued that clashes between industrial and artisanal mining must, first and foremost, be contextualized in terms of legislation and policies. While Congolese law recognizes artisanal mining as a production mode, the policies that are put in place by the government tend to favour private companies, and many legal provisions aimed at formalizing and assisting artisanal mining activities are not implemented. In South Kivu, for example, there is a need for more recognized artisanal mining zones, for assistance in the creation of cooperatives and for more effective administrative and technical public services. However, one should go beyond these technical measures and also pay due attention to the practices and discourses of artisanal miners themselves, particularly in relation to their perception of the notions of property and legitimacy, and their outlook on development and on livelihoods. Of course, these views must be analyzed in the proper context of a post-conflict situation where informal mining activities have supported livelihoods for several decades, and where the arrival of a multinational company, with explicit backing from the national government, has caused dispossession and displacement and altered local power relations, while few alternative livelihood options are open to former miners. Miners in Twangiza are opposing dispossession by the company in action and in words, and both the company and the government ought to take due account of their position with a view to attaining a sustainable solution based on a model of coexistence between (former) artisanal miners and industrial concerns.

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[73] See Pact, 2010; Ministry of mines int. 28/09/2012.

[74] It must be said that the miners' feelings of frustration are directed not only at the company, but also at the local authorities. Part of the population of Luhwindja, for example, accuses the customary chief of corruption, mismanagement, favouritism and embezzlement of money; see Geenen and Hönke, forthcoming.

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