This is the author version- when citing, please refer to the published article
The article will be published in Extractive Industries and Society
doi:10.1016/j.exis.2016.05.003

Mining cooperatives in Eastern DRC: saviour or exploiter?

The interplay between historical power relations and formal institutions

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Abstract

Artisanal miners living in Eastern Democratic Republic of Congo (DRC) are forced by the government to organize into cooperatives, in line with formalization policies. At first glance, cooperatives may appear to be their saviour: they can help them to become legally recognized, they can empower their position vis-à-vis traders and the government, and they may increase their revenue share. Taking a power-laden relational approach to institutions and poverty, we argue that the opposite is happening. Based on a field study in South Kivu, we demonstrate how the interplay between historical power relations and formal institutions has transformed cooperatives into an instrument allowing economic, political and customary elites to continue exercising power and exploiting miners economically. As such, cooperatives seem to be an institution that 'legalizes' exploitation. We further examine the mechanisms that facilitate, exacerbate and prolong this exploitation, and warn that as the production evolves towards small-scale mining, an associated capitalization may further perpetuate the relational poverty if the cooperatives are not governed differently.

1. Introduction

Minerals from Eastern DRC have a bad reputation. Despite an emerging industrial production, much of the mineral production and trade is still artisanal and not formalized, especially for gold (United Nations, 2015). Moreover, during the war (1998-2003), the region's minerals have attracted the greed of rebel groups, foreign occupying forces as well as the national army, which has resulted in massive human rights abuses and violence. Hence the common labelling of tin, tungsten, tantalum and gold as 'conflict minerals'

(Autesserre, 2012). These observations have provoked a range of national and international initiatives to break the link between minerals and conflicts[1], as well as calls to formalize the artisanal mining sector[2].

One of these initiatives was a six-month ban on all artisanal mining activities in South Kivu, North Kivu and Maniema provinces, proclaimed by president Kabila in September 2010 (Geenen, 2012). At the lifting of the ban in March 2011, miners were again allowed to work, but according to a ministerial decree (2010) they can only do so in legal Artisanal Exploitation Zones (AEZ) and when they organize themselves in cooperatives. According to a subsequent ministerial decree (2012)[3], mining sites should be validated as 'green' by a joint validation team including representatives of the Congolese government, processing and exporting entities, local civil society organizations and international organizations, who have to confirm the absence of armed actors at the site, as well as assess a range of other 'risks' defined in the OECD Due Diligence Guidance (OECD, 2011). In 'green' sites, certification and traceability schemes can be set up, as is required by OECD, CIRGL (International Conference for the Great Lakes Region) and national legislation[4]. This shows that formalization policies in the DRC are in line with the legalist approach to (in)formality. They focus on the "fiscal-administrative barriers and political impediments that prevent and/or discourage formalization" (Verbrugge, 2015: 1028) and suppose that titling, registration and traceability are necessary and sufficient conditions for formalization and, consequently, growth and development of the sector.

Yet despite its informality, artisanal mining contributes to millions of individual livelihoods as well as to broader development in Eastern DRC. Being a low entry barrier activity and generating more revenues than sectors such as agriculture, it is economically attractive to many Congolese (Geenen, 2015). And despite the fact that working conditions are detrimental to the miners' health, that technology and safety equipment are rare, and that child labour, prostitution, alcohol and drug abuse are not uncommon, artisanal mining also strengthens solidarity, promotes equality and gives rise to a collective occupational identity as miners from a variety of ethnic and social backgrounds work together under the same circumstances and face similar risks (Bryceson & Fisher, 2014; Bryceson & Geenen, 2016).

This article can thus be situated within a broader debate on mining reform and its effects in the DRC (and beyond), but focuses on one key component of the formalization of artisanal mining activities:

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[1] Numerous reports and articles have discussed the link between minerals and conflicts in the DRC, as well as initiatives to break this link. For a recent overview of such initiatives, see Levin and Cook, 2015.For a critical discussion of the 'conflict minerals' discourse, see Cuvelier et al, 2014b; Vogel and Raeymaekers, 2016.

[2] There is no space to give an overview of the debate on formalization in ASM (artisanal and small-scale mining) here, but see Geenen, 2012 on the DRC; Hilson and McQuilken, 2014; Verbrugge, 2015.

[3] Decree 0057/CAB.MIN/MINES/01/2012 and Decree 0058/CAB.MIN/MINES/01/2012, both dated 29 February 2012.

[4] Through Decree 0057/CAB.MIN/MINES/01/2012 of 29 February 2012 the CIRGL and OECD requirements have been incorporated in national legislation. The scheme that is currently dominant is managed by ITRI (International Tin Research Initiative), although competing companies are piloting their own schemes.

the creation of mining cooperatives, which is heavily promoted by the Congolese government and by donors as a new organizational model for artisanal mining. Drawing on the literature on cooperatives (section 2) and using a power-laden relational approach to institutions and poverty (section 3), we hypothesize that cooperatives can work as saviours or exploiters, depending on how they deal with power relations. The article thus studies the following question: "How do historical power relations affect the creation and functioning of mining cooperatives in the artisanal mining sector of eastern DRC, and how does this, in turn, alter (or not) current power relations and the distribution of mining revenues?". Relying on qualitative field data, including case study material from two cooperatives (section 4), we argue that cooperatives have become an instrument allowing economic, political and customary elites to continue exercising power and exploiting miners economically.

Data were collected by the first author in South Kivu (July and August 2015) and include 43 in-depth interviews: 4 interviews with representatives of the Ministry of Mines and Saesscam ('Service d'Assistance et d'Encadrement du Small-Scale Mining'); 2 with representatives of GÉCOMISKI ('Générale des Coopératives Minières du Sud-Kivu'); 1 with a representative of Banro; 4 with local NGOs; 8 with miners; 7 with pit bosses; 8 with presidents of cooperatives; 5 with traders and 4 with exporters. In addition, 6 focus groups were organized: 1 with key stakeholders in Walungu; 1 with key stakeholders from North and South Kivu; 2 with miners; 1 with pit bosses; and 1 with presidents of cooperatives. Two cooperatives in Walungu territory, one of the important mining territories in South Kivu province, were sampled on the basis of three criteria. First, in contrast to many cooperatives that exist solely on paper, these were known to be operational at the time of research. Second, their mining sites were accessible at the time of the research, which was important in view of our own budgetary, time and security constraints. Third, as will be explained in section 4, they differ in terms of leadership, minerals produced (gold/cassiterite) and status of the mines where they operate, which makes them interesting different cases. The cooperatives are 'Coopérative Minière Des Exploitants Artisanaux' (COMIDEA) and 'Coopérative Minière et Agricole de Ngweshe' (COMIANGWE). Interviews were conducted in French and in Kiswahili, the latter being translated by one of the accompanying researchers. After asking the respondents for permission, all interviews were taped and notes were taken on the spot. Based on this, detailed summaries were written and directly coded in Nvivo. Coding involved an iterative process of going back and forth between the literature and the data, and resulted in the creation of eighteen deduced codes (based on our conceptual framework) and 20 induced codes (based on analysis of field data). This iterative approach also enabled us to sample new respondents or adapt data collection methods in view of preliminary findings.

2. Cooperatives: saviours or exploiters?

Cooperatives, as business organizations that are owned, controlled and operated by groups of users or workers for their own benefit, came into existence during the 19th century industrial revolution in England. Nowadays at least 650 billion people worldwide are members of one or more cooperatives (United Nations, 2013). The Alliance of International Cooperatives lists seven fundamental principles all cooperatives have in common[5]: voluntary and open membership; democratic governance; member economic participation; autonomy and independence; education, training and information; cooperation amongst cooperatives; concern for community.

On the positive side, cooperatives thus reinforce solidarity, equality and democracy (DfID, 2010). They can empower their members through uniting and representing them (Cooperatives Europe, 2013). Through economies of scale and transfer of market knowledge, cooperatives may increase producers' bargaining power vis-à-vis buyers, resulting in higher revenues. Similarly, the collective organization enables members to raise their voices and lobby with the government. However, research in Sub-Sahara Africa has demonstrated that, both in the colonial era and after independence, cooperatives there have been used by national elites as instruments of economic control while undermining workers' power positions (Wanyama et al, 2009). Several studies have shown that their management structures still exclude members from decision-making processes (Fisher, 2007; Bernard & Spielman, 2008).

Indeed, the question of power is central to, albeit not always explicitly discussed in, the literature on cooperatives, 'empowerment' through collective agency being seen as one of their main potential achievements. However, as Burke (2012: 114) says, "many cooperative managers and scholars have prioritized pragmatic questions of how to launch and sustain cooperative economic projects and in the process, have neglected questions of history, power, and change that should be central to cooperativism". In his analysis of cooperatives in Brazil, Burke therefore emphasizes the need to interrogate how cooperatives can challenge locally entrenched historical power relations that structure the systematic exploitation of labour. Agreeing with his point, we explicitly address 'power' in our discussion of Congolese mining cooperatives. In the next section we build our conceptual framework, focusing on institutions, power relations and revenue distribution.

3. A power-laden relational approach to institutions and poverty

We perceive both poverty and institutions as social constructions which are ultimately the outcome of a negotiation of power. Based on the above observation that the formation of artisanal miners' cooperatives is being promoted and legally enforced by policy makers without prior consultation with local stakeholders, we perceive the emergence of cooperatives in Eastern DRC as the top-down introduction of a new

[5] International Co-operative Alliance website: http://ica.coop/fr/node/10584.

institution. In order to gain critical understanding of the functioning of this new institution in a pluralistic institutional context such as Eastern DRC, we adopt the perspective of institutional bricolage with its emphasis on historical power relations. In order to link these power relations to the distribution of revenue, the complementary perspective of relational poverty will be adopted. Figure 1 illustrates how these theories are deployed to analyse changes at the institutional and the actor level, and how power relations as the starting point of our analysis align both perspectives.

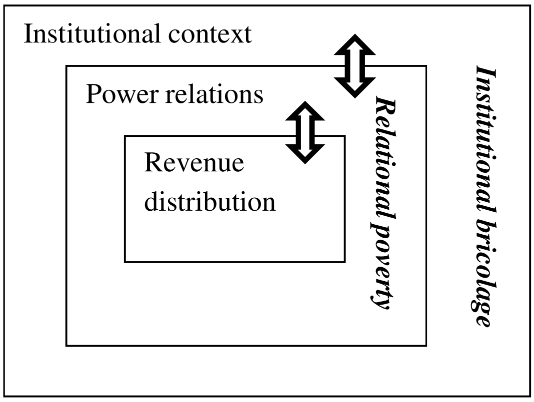

Figure 1: A power-laden relational approach to institutions and poverty

Through the lens of mainstream institutionalism, institutions can be viewed as “the set of rules actually used by a set of individuals to organize repetitive activities that produce outcomes affecting those individuals and potentially affecting others” (Ostrom, 1992: 1). These rules become more effective through a process of institutional crafting, which Ostrom views as an evolutionary process of developing optimal institutions. This perspective, which assumes that institutions can be rationally modelled and effectively imposed (top-down) has been criticized by sociologists and legal anthropologists. For instance, Reyntjens states that the imposition of institutions does not pan out unconditionally as society is regulated by both state and non-state law: a context of legal pluralism (Reyntjens, 2014: 533). This seems to be especially the case in Eastern DRC, a borderland which is far removed from the capital city and where state institutions are barely effective (Meagher, 2012; Raeymaekers 2010).

Similarly, Cleaver asserts that bureaucratic institutions cannot be modelled as they are embedded in a social context and exist alongside ‘traditional’ ways of living (Cleaver, 2012). Instead, she proposes that institutions are formed through bricolage, “a process by which people consciously and non-consciously draw on existing social formulae to patch or piece together institutions in response to changing situations” (idem: 45). As such, this process is typically characterized by an interplay between the ‘traditional’ and the ‘modern’, the ‘formal’ and the ‘informal’. In addressing bricoleurs’ agency to challenge power relations, Cleaver suggests that the creativity and diversity of institutional design may create room for manoeuvre, but may simultaneously reproduce and reinforce inequalities, since institutions are inevitably a part of the social world which they intend to modify (Cleaver, 2012). Indeed, Komakech et al (2011: 1741) argue that the introduction of new institutions can enable the capture of communal systems by new actors who want to gain financial advantages and increase their power, a case of elite capture (Platteau, 2004).

This brings us down from the level of institutions (institutional change) to change at the actor-level. Building on Sen's human capability approach (Sen, 1999), Bastiaensen et al. (2015: 14) argue that poverty, defined as a "relative deprivation of capabilities", results from relational and institutional processes that occur in multiple political arenas. In line with their reasoning, we perceive the poor as those who are deprived in their capabilities to make themselves heard (i.e. their negotiation capacity), or in conformity with Lukes' typology of power (Lukes, 2005), those who lack power in the form of political representation (i.e. to influence what gets on the agenda). From the same point of view, Mosse has introduced the perspective of relational poverty, which focuses on historically developed relations and entails that "people are poor because of others… [They are] unable to control future events because others have more control over them" (Wood, 2003: 456, as quoted by Mosse, 2010: 1158).

Relational poverty is facilitated by exploitation, which is seen, in the classic Marxist sense, as the existence of a surplus value (resulting from surplus labour) that is captured by capitalists controlling the labour. Charles Tilly has extended this concept by looking not only at class relations and labour, but at control over resources more generally. According to him, exploitation happens when "persons who control a resource a) enlist the efforts of others in production of value by means of that resource but b) exclude the others from the full value added by their effort" (Tilly, 2006: 10). He also argues that relational poverty is rendered more durable by the acceptation or the internalization of subordination by marginalized groups, and the consequent adaptation strategies through which they enable their exploiters to maintain the system of exploitation (idem). In brief, we draw upon the perspective of institutional bricolage, assuming that historical power relations prevail or are reinforced in the creation of new institutions; and on the relational poverty view, arguing that unequal power relations persist or are exacerbated by elite capture and result in exploitation and unequal revenue distribution.

4. Institutions, power relations and revenue distribution in Walungu's cooperatives

The case study cooperatives are both located in Ngweshe, one of the chiefdoms situated in Walungu territory. The population in this region consists mainly of Bashi people. The traditional economic activities have been agriculture and cattle herding, while people now also engage in mining or trade (Cox, 2011). Aside from the administrative authority, represented by the administrator of Walungu, customary authority is in the hands of the 'mwami'. Traditionally, the task of the mwami was to ensure the wellbeing of his population and manage and distribute the land. The current land tenure system, however, is characterized by duality and ambiguity regarding the legal position of chiefs. Many chiefs have taken advantage of this ambiguity, maintaining their control over land access and accumulating their personal wealth (Vlassenroot & Huggins, 2005: 135). Chiefs have also played an important role in controlling access to artisanal mining pits, demanding contributions and taxes from artisanal miners and traders alike (Geenen & Claessens, 2013; Geenen, 2015).

This is also the case for the mwami of Ngweshe, who responded to the new policy requirements by transforming an existing miners' association and registering it as the cooperative COMIANGWE in 2014, appointing his wife as its official president. COMIANGWE has around 300 members, produces gold and cassiterite, and is headquartered in Nyamurale. In 2014 this site was still validated 'red' because of the presence of soldiers engaging in mineral exploitation[6]. Data were collected from the latter site as well as from another mine named Namadava, validated as 'yellow', meaning 'improvements are needed'[7]. The second cooperative was founded in October 2010 and has been officially registered since 2012. COMIDEA produces cassiterite, a mineral from which tin is extracted by processing entities and it has about 400 members. The head office is located in Nzibira, a small mining town in Walungu. The president has a long professional experience as a mineral trader and is in fact the president of all traders in Nzibira. Data were collected in two of COMIDEA's operational sites: Muhinga and Caminyago[8]. The mining area around Nzibira was validated as 'green' in 2012; in 2014 it became operational as an iTSCi certified site (ITRI, 2014a and b)[9]. It must be noted that COMIANGWE is in conflict with COMIDEA and other cooperatives over who can claim legitimacy in certain mining sites as official documents and legal provisions remain very ambiguous[10].

4.1 Institutions: the organization of cooperatives

As has been mentioned in the introduction, the compulsory organisation in miners' cooperatives must be seen as part of a broader formalization strategy with a strong legalist dimension. Indeed, organisation in cooperatives requires titling (in AEZ) and official registration of the cooperative and its members. But in the government's vision, this is only a stepping stone towards (semi) industrialization and what the Mining

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[6] Ministère des Mines, Arrêté Ministériel 0126/Cab.Min/Mines/01/2014 du 12 mars 2014 portant qualification et validation des sites miniers du territoire de Walungu dans la province du Sud-Kivu.

[7] Ministère des Mines and German Cooperation, A summary of the mine site validation missions in the DRC 2011-2016.

[8] In total they claim to have 21 sites of which only a few are operational, see ITRI, 2014. Although the mentioned sites were operational during the period of the field study, a recent report by Max Impact (2016) indicates that there has been little productive activity in 2015.

[9] Although part of this area also falls within the concession of Banro Corporation, a large-scale gold mining company (ITRI 2014b).

[10] Workshop Ministry of Mines, July 2015.

Code calls 'small-scale mining'[11], which includes "the emergence of a middle class"[12] that can contribute to local development. Yet when probed about a supportive strategy behind this vision, such as investment plans to move towards small-scale mining, the interviewed government representatives could not provide details and emphasized that the ideas come from the national government[13].

There are significant problems with the current legislation on cooperatives, as well as with its implementation. With respect to the legal status, cooperatives are considered to be non-profit organizations and commercial enterprises at the same time (Bahalaokwibuye, 2016). Moreover, their functioning is governed by legislation that stems from colonial times and is not adapted to current realities (idem). Next, the obligation to become a member of one cooperative restricts miners' freedom of association and is inconsistent with national and international law (Mirindi, 2014: 593)[14]. With respect to implementation, the administrative procedure to be recognized is costly and time consuming: files must first be introduced at the provincial Ministry of Mines in order to obtain a 'favourable advice', and then be sent to the central administration in Kinshasa. Figures from 2012 indicated that 62 cooperatives in South Kivu had submitted a file to the provincial Minister of Mines[15], while about six had obtained an official license[16]. By 2015 a total of 99 had submitted a file, 76 had received a favourable advice and about six, still, had an official license (Bahalaokwibuye, 2016). Moreover, there are not enough AEZ to accommodate all cooperatives (Geenen, 2015).

Cooperatives in South Kivu typically have three types of members: founding members, honourable members and regular members. According to the model statute[17], they should be managed by five organs, but in Walungu the General Assembly – consisting of the president, the vice-president, the treasurer, a manager, a secretary and multiple team leaders and pit bosses – takes almost all decisions. As has been reported before with regards to cooperatives in South Kivu (Bashizi and Geenen, 2015; BEST, 2015; Mirindi, 2014), the cooperatives in Walungu don't follow the cooperative principles as put forward by the Alliance of International Cooperatives. First of all, presidents have not been elected democratically. Secondly, regular members rarely participate in meetings of the General Assembly as they are either not

[11] Article 1 Paragraph 22, Mining Code, 2002. The difference with artisanal mining lies in the mechanization, scaling up of the production and organization in small business units rather than individuals or groups. In the literature, both activities are often referred to as ASM or artisanal and small-scale mining, whereas in reality there is a lot of differentiation.
[12] Ministère des Mines, Termes de référence de la mission de service d'évaluation des mesures d'accompagnement de la décision de suspension des activités minières à effectuer dans les provinces du Nord-Kivu, Sud-Kivu et Maniema.
[13] Interview with representative of the Ministry of Mines, Bukavu, July 2015.
[14] In September 2014 a new uniform African law (OHADA), which includes a section on cooperatives, has been adopted in the DRC (Bahalaokwibuye, 2016).
[15] Reports Provincial Mining Division.
[16] Interview with cooperative leader, Bukavu, May 2012.
[17] Ministère des Mines, Statuts-type pour une coopérative minière.

invited or the meetings are too far away from their mining pits. Besides political participation, cooperatives also lack member economic participation. Although most respondents have paid for their membership cards, none of them have paid their share. Moreover, cooperatives do not provide regular trainings for their members, nor do they disseminate information. Finally, although membership is open to everyone[18], it is not always voluntary as many miners who wanted to continue working in particular mining pits were forced to join.

Besides the now formalized organization through miners' cooperatives, other kinds of organization exist – and already existed before – in the form of miners' committees. They have a similar management structure with presidents, vice-presidents, treasurers and pit bosses, but the miners we interviewed generally perceived them as more legitimate than cooperatives. According to them, these committees do provide a number of services, including assistance to improve working conditions and help in case of accidents. In the words of one of the interviewed miners:

> "The committee of miners is better organized than the cooperative […] we have been working together since we were children […] this is the first time I see a representative from the cooperative [since three months]"[19].

Indeed, Rothenberg and Radley (2014) have documented that many committees of miners in South Kivu are tightly knit and display a substantial cooperative spirit. In this sense one may wonder why these organizations have been ignored in the formalization process. The reason may be twofold. First of all, the technical nature and costly procedures for registering a cooperative constitute entry barriers for miners' committees, which are often smaller, more bottom-up and which may not have the right political connections. Second, miners' committees may more easily escape government control, which makes the government reluctant to work with them. As we will discuss in the next section, the creation of cooperatives can also be seen as a strategy for access control by the government.

The provincial federation of cooperatives (GÉCOMISKI) was established after Kabila lifted the suspension of artisanal mining. Yet just like many individual cooperatives, GÉCOMISKI lacks a vision of how cooperatives should evolve. The federation does assist cooperative leaders in obtaining their license and engages in lobbying work, but provides few other services. Moreover, representatives from the Ministry of Mines and local NGO's have described GÉCOMISKI to us as an undemocratic federation of 'opportunists' that imposes itself on cooperatives and is only interested in the collection of membership fees. GÉCOMISKI's president is at the same time the leader of one individual cooperative and has a history

[18] In accordance with the Mining Code and international guidelines, it is only forbidden for children and pregnant women.
[19] Interview with miner COMIDEA, Walungu, July 2015.

as mineral trader, NGO leader and pastor. He has used his political and business network to establish the federation.

4.2 Power relations: elite capture and state control

Cooperatives are ideologically meant to empower their members. Paradoxically, the cooperatives under study seem to do the opposite. Although the cooperatives have made promises to attract their membership, these are rarely honoured and there is very little accountability for this. "The cooperative makes promises but they do not respond [to these]; they deceive us"[20] and similar remarks where often heard during the interviews. In most cases, miners' chain of communication reaches no further than their team leader or pit boss. As a result, the majority of miners who were interviewed had little knowledge of how cooperatives are managed and how minerals are sold. What is more alarming is that many miners are not even aware of their right to be represented, as was illustrated by several respondents: "I did not know that I had the right to influence the cooperative"[21].

Many presidents of cooperatives in Walungu were (and are) mineral traders, some were leaders of committees of miners, and some held political functions before they were elected as presidents. Some are pastors in local churches or are related to the customary chief. In all cases, they have obtained their current position as president by using their influential networks rather than through democratic processes, and they use the cooperatives as an opportunity to gain access to mining titles. This can be illustrated by the case of COMIANGWE, a cooperative through which the mwami aims at exerting customary power over his chiefdom. In the view of the mwamikazi, this is like a manifestation of the legitimate power of the chief: "The mwami is the father of all the cooperatives [….] even of my own cooperative"[22]. Yet for the leader of a rivalling cooperative, it is a perfect example of elite capture:

> "It was after we understood that the chief wanted to establish a cooperative because they have the conception that miners should not create their own cooperatives and thus it got to be that the cooperative of the mwami should settle there. While COMIANGWE was an old cooperative that was no longer operational, [their] friends they took advantage of the presence of the minister, who was at the same time adviser of the mwami [in] Ngweshe, so they took advantage of his presence to install the cooperative in Nyamurhale, although we were the first to settle there"[23].

This fits in with Platteau's (2004) and Komakech et al.'s (2011) hypotheses and shows that 'traditional' institutions of customary and political power have been blended with the now imposed cooperative model.

[20] Interview with miner COMIANGWE, Walungu, July 2015.
[21] Interview with pit boss COMIDEA, Walungu, July 2015.
[22] Workshop Ministry of Mines, July 2015.
[23] Interview with leader COPAMIK.

Our interviewees report that such problems of elite capture are not discussed within cooperatives because of the close links to the authorities, although they may be discussed in the latter's absence:

> "The meetings [with the committee of miners] are not consistent. We can speak in a meeting, but when an authority arrives, he wonders what we speak about, so everybody shuts their mouth and we split […] we are scared of the authorities […] in meetings with the cooperative, we do not discuss these things at all"[24].

This reflects the 'hidden transcripts' as described by James Scott (1990). His theory asserts that in the face of powers, subordinates display their 'public transcript' in which they appear as passive and obedient subordinates; but when they are in a private situation they show their 'hidden transcript' in which they criticize those in power. In Scott's theory, these hidden transcripts rarely appear in the public transcript, but when they do, they may entangle the start of a revolution. This does not (yet) seem to be the case for the miners in Walungu. One reason for this may be found in the words of a miner from COMIDEA, who explained why he does not have influence in the management of the cooperative: "I think that the management is a personal matter, so we cannot blame anyone"[25]. Similarly, miners accept that they need to pay illegal contributions and taxes, although those must remain within a reasonable level. For miners it is a mechanism to maintain access to the resources, as Geenen (2015) argues. At the same time, they acknowledge that individual state agents need the money, as this quote demonstrates (idem: 76):

> "Our government says: arrange that with the chef de bureau. So when they send someone over as chef de bureau, you'll see that it is a young man who recently left school. He has nothing but his certificate in his hand. So he wants to earn something in this office. It is easy to understand. He uses the power he has to survive. He imposes, and you pay what he asks you."

Perhaps their collective action has not yet developed to the public stage because miners have partially lost their 'capacity to aspire', i.e. they have internalized the idea that social organization 'naturally' requires authoritarian leadership and therefore anticipate on prejudicial treatment from authorities (Lukes, 2005, as quoted in Mosse, 2010). Nevertheless, a recent study of a mining cooperative in Katanga reveals how cooperative members have created their own committee of miners as a way to circumvent the price monopoly set by their cooperative and the industrial company it allies with (Iguma & Hilhorst, forthcoming). This demonstrates the potential for miners' collective agency.

Besides the elite control over the cooperatives, we argue that for the government, cooperatives serve as a mechanism to increase its control over the artisanal mining sector. Indeed, a representative from

[24] Interview with miner COMIANGWE, Walungu, July 2015
[25] Interview with miner COMIDEA, Walungu, July 2015

the Ministry of Mines also mentioned that cooperatives make miners “more manageable”, and that cooperatives should be reorganized into a few homogeneous federations that sell directly to exporters[26]. As was said in the previous section, this may also explain the government’s disregard for the already-existing committees of miners, that are much smaller in size and larger in number. One cooperative president adjudicated the creation of cooperatives as a way to “increase the control by the state through taxes”[27]. It thus seems that rather than invigorating mining cooperatives as a developmental model, the Congolese state pushes the creation of cooperatives as a mechanism to increase its control over the mineral sector; an argument that has been made before with respect to the promotion of large-scale mining (Geenen, 2015; Bashizi & Geenen, 2015; Geenen & Radley, 2014). This attempt at strengthening control seems to be motivated by the government’s predatory behaviour, rather than by its search for popularity and electoral votes[28]. Similarly, the close entanglement between cooperatives (and their presidents) and local politics, can be interpreted as a mechanism to control access to the mines and their revenues.

4.3. Revenue distribution: bargaining positions and the unchanged value chain

The system of revenue distribution in artisanal mining has been described as a process in which production (extracted rocks or sand) is shared among the members of a mining team, a ‘pit boss’ and a range of external actors who benefit through (legal or illegal) taxes (Geenen, 2015). Pit bosses make extensive investments in pits as they provide the tools and cater for the workers during the phase of preparatory works. At the time of high production, they may either distribute the production among the miners, who then sell their own part to small traders, or they may sell on behalf of the miners and distribute the profit. Estimating miners’ revenues is a challenging task, though Stoop et al (2016) calculate that pit bosses on average earn \$56 per week in preparatory periods and \$203 during the production phase[29], whereas other miners earn \$21 per week in preparatory periods and \$51 during the production phase[30].

The Mining Code requires that traders buy a permit. Small traders travel to mining pits to buy minerals directly from the miners and sell these to bigger traders who are often located in Bukavu. Big traders sell to exporters, who sell the minerals (legally or through smuggling) to regional buyers. While most supply chains are not as neatly structured as the ‘model’ chain below, and categories as ‘miners’ and

[26] Interview with representative of the Ministry of Mines, Bukavu, July 2015.
[27] Interview with cooperative leader, July 2016.
[28] In fact, president Kabila’s recent reforms have cost him a lot of popularity in the targeted eastern provinces of the DRC in the 2011 elections (Geenen, 2015: 192).
[29] These should not be considered as net profits, since pit bosses invest in pits, for which they often have to borrow large sums from traders.
[30] Data from a representative survey among 430 miners and 39 pit managers in Kamituga, South Kivu. Still in South Kivu, Geenen (2015) estimates that gold miners in her smaller sample (258 miners and pit bosses in four gold mines) earn US\$ 44 *per month* during preparatory periods, and between US\$ 128 and 195 in high production periods.

'small traders' actually contain a diversity of actors, the supply chain in South Kivu roughly takes the following shape:

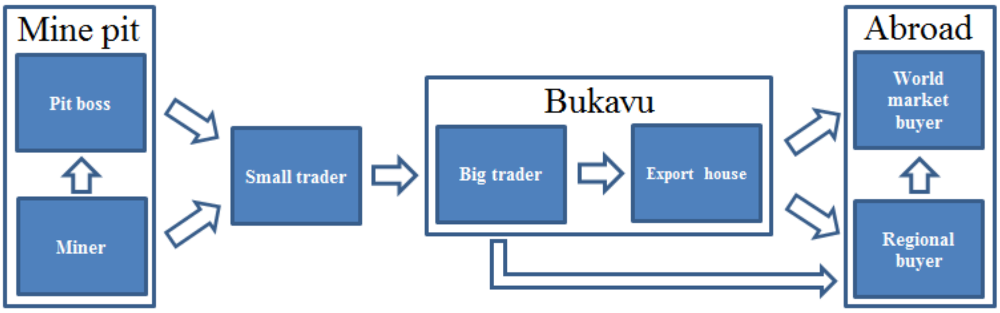


Figure 2: mineral supply chain in South Kivu

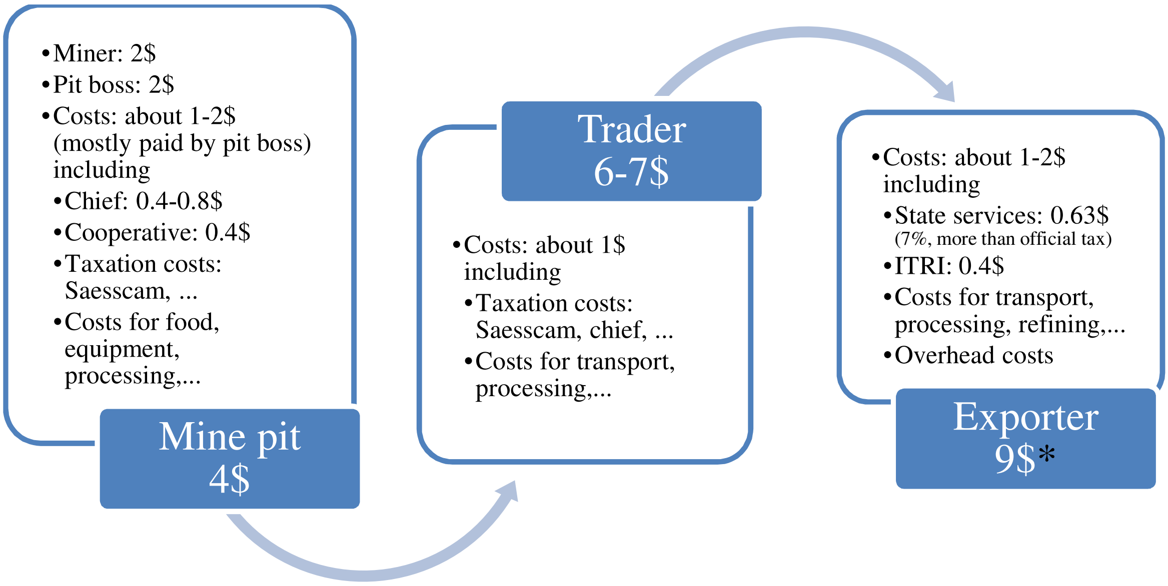
The price of the minerals is determined by the London Metal Exchange (LME). Exporters in Bukavu, which hold monopolistic positions since traceability and certification have centralized the mineral trade in the hands of a few powerful actors in so-called 'closed pipelines' (Cuvelier et al, 2014a), generally impose their price on big traders. Big traders also hold a powerful position as they have access to financial capital and can therefore stock minerals and buy and sell at competitive prices. Exporters and big traders further use their capital to invest in the production of individual pit bosses or cooperatives, which reinforces their capacity to impose prices[31]. Small traders have limited access to financial capital; they are mobile and larger in number, have to compete fiercely in order to stay in business, and maintain personal relationships with pit bosses and miners. As a result, they leave miners and pit bosses with more room for negotiation (Geenen, 2015: 148-150). Although miners generally have a good idea about the world market price, in the case of cassiterite, miners are uncertain about the value of their produce (i.e. the tin concentrate), which further weakens their bargaining position[32]. In the Philippines, Verbrugge (2015: 1039) also found that new technologies have rendered the processing of minerals less transparent for the workers, resulting in them getting a lower share, and the 'financiers' capturing more rent.

In our case study of COMIDEA and COMIANGWE we found that miners and their pit bosses split the produce 50/50 and that the pit bosses use their share to pay the customary chiefs (15%) and the cooperative staff (10%), and in many cases they also pay an unspecified amount of illegal taxes to Saesscam and other state services. The remaining share of the pit boss is perceived as a reimbursement of his costs plus personal profit. Figure 3 gives a rough indication of the relative distribution of revenue in the domestic

[31] Interview with big trader, Bukavu, August 2015.

[32] For gold the situation is different, as mined ore is already more than 90% pure and miners are well aware of the price (Geenen, 2015).

value chain (based on our data from COMIDEA, without intending to generalize specific expenditures to all cooperatives).



**assuming an average concentrate of 60% tin, with the international price (LME) set at 15$ as an average (July 2015)*

Figure 2. Domestic value chain of cassiterite from COMIDEA

Compared to the situation before the creation of COMIDEA and the ITRI certification of Nzibira mines, the distribution of revenue and structure of the chain have not changed. What has changed, is that a) the tin price has dropped as a combined result of falling international commodity prices and the ITRI monopoly (Cuvelier et al, 2014a) and b) the cooperative and ITRI have been included in the chain as actors capturing part of the value created. In the end, COMIDEA's artisanal miners get a revenue share of about 22% (adjusted for a 60% tin concentrate).

Indeed, cooperatives do not sell on behalf of miners. However, a few exporters have reported that they have bought minerals from traders who are at the same time presidents of cooperatives, such as the president of COMIDEA[33]. It thus appears that cooperative leaders do not sell on behalf of miners with the aim to increase the miners' revenue shares, but some of them use cooperatives as a way to stay in business as traders. As figure 3 shows, there are many more rent-seekers, including chiefs and state services levying illegal taxes. In correspondence with findings from ITRI's (2014b) most recent governance audit, we have found no evidence of interference from security forces at the mine sites of our case study, but we do have anecdotal evidence of their presence in other mine sites Walungu[34]. Saesscam, the technical service of the

[33] Interview with exporter, Bukavu.
[34] Group discussion with small traders, Mugogo.

Ministry of Mines that should assist artisanal and small-scale miners, demands contributions from both miners and traders, while according to their mandate they should only levy a remunerative tax for services rendered to artisanal miners[35]. This value chain analysis leads us to the question of exploitation.

4.4 Persisting relational poverty through elite capture

Whether or not the miners are exploited, when interpreted in the classical sense (Marx, 1890), depends on whether they are paid in proportion to the value they add by their labour efforts. When wages are not in proportion to the labour invested, 'surplus labour' is created, which creates 'surplus value' that is captured by the 'capitalists' controlling the labour. Different from what Marx described, artisanal miners are not engaged in wage labour. However, the mechanism of exploitation works in a similar way for them, as they may keep only part of the minerals they produce and consequently engage in surplus labour. In order to produce enough minerals, they need to perform dangerous and harsh physical work and work long hours, sometimes skipping breaks and spending nights in the mine (Bashizi & Geenen, 2015), or staying underground for as long as a month during peak production periods (IKV Pax Christi, 2012). As one of the COMIANGWE miners said:

> "We work around 12 hours per day, in the day or in the night, according to our strength […] when one miner is tired we organize our team so that it never stops working"[36]

While it remains debatable to what extent such behaviours are purely coping mechanisms, and to what extent artisanal miners squander part of this surplus value, the severity of these actions, the uncertainty about their earnings, and the detrimental working conditions under which they operate give us enough reason to believe that miners are excluded from the full share of their added value.

However, in correspondence with Tilly's (2006) conceptualization of exploitation, we perceive the 'exploiters' of miners not solely as the persons that control labour or others who are directly involved in the value chain, but rather as the wider institutional system that controls the minerals and the necessary capital to extract them. Indeed, miners' low revenue shares are also due to the (il)legal taxes that are levied by a range of traditional, political and economic power holders. First, many of these actors and institutions fail to deliver the services that they proclaim to deliver to miners in terms of legal, financial, material and technical assistance. This renders their efforts disproportionate to their received revenue shares. Or as one of the miners quoted by Geenen (2015: 75) said:

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[35] Décret n.047-C/2003 portant creation et statuts d'un service public dénommé Service d'Assistance et d'Encadrement du Small-Scale Mining, 28 mars 2003.

[36] Group discussion with COMIANGWE miners, July 2015.

> "Saesscam, I realised that they betrayed us. They told us they would bring specialists, machines and funding. But they have done nothing. The only thing they have done so far is asking for money."

Second, this lack of effective service delivery limits the miners' production capacity and hence causes them to engage in surplus labour. The introduction of cooperatives only seems to add to these rent-seeking practices. As one COMIDEA member quoted by Rothenberg (2014: 16-17) stated:

> "Here in our mine, the cooperative is COMIDEA. I am a member of this cooperative, but it doesn't help us. The members of the cooperative only seek money from miners. Almost everyone here in the mine is against the cooperative, except for the family members of the founders of the cooperative. Even though the cooperative gives me nothing, I pay them whenever they ask for funds for community projects".

As we have argued, this exploitation is a direct reflection of miners' lack of power in terms of political representation and information, and in line with Platteau's (2004) notion of elite capture, it is also the result of the internalization of their subordination that consequently triggers adaptation strategies allowing these elites to maintain their system of exploitation (Tilly, 2006). It is exacerbated by the accumulation of wealth by big traders and exporters and an apparent lack of political will from the Congolese state to change the situation; which both resonate with Harris-White's notion of 'commercial capitalism' that restrains countervailing power from small scale labour to protect their own interest (Harris-White, 2006).

It must be repeated that this exploitation is not a new phenomenon. Exploitative practices by elites over cooperatives have been reported elsewhere (e.g. Wanyama et al, 2009; Burke, 2011). In South Kivu they can be traced back further in history to exploitative land systems (Cox, 2011) and military groups (Garrett et al, 2009). However, as Verbrugge (2015: 1037) has convincingly demonstrated in the case of the Philippines, the "increased involvement of outside financiers and skilled experts enabled the capitalization and professionalization of ASM", which in turn led to an increased differentiation between entrepreneurs (capitalists) and "a massive workforce that was now subject to rising rates of exploitation" (idem: 1038). Although this transition towards semi-industrial small-scale mining is still in a very embryonic stage in the DRC, current policies – including the obligation to organize in cooperatives and the fact that only one cooperative will hold the title to one AEZ – promote it. Based on our findings, this may exacerbate the exploitation of labour.

5. Conclusion

Ambitions for Eastern DRC's mining cooperatives are high: they should facilitate traceability and security, improve working conditions and registration and organization of miners, empower them and increase their revenue shares. In some mining sites they have indeed played a positive albeit limited role, but in most sites their potential has been overshadowed by their reputation as ‘exploiters’. The exploitation in this case is not a new phenomenon, nor can it be attributed to a single group of actors. It is rather the continued expression of power by a wide web of elites who have creatively combined historical political, economic and customary institutions with the new institution of a cooperative, and the constellation of this interplay between institutions unfolds as messy as the legislation that enforces its top-down fabrication. In essence, this process of institutional bricolage has not changed the distribution of power, the selling method, or the distribution of revenue; it has merely allowed the capture of more value by some old and some new elites. As such, as has been suggested before, the top-down imposition of cooperatives seems to be a form of ‘legalizing’ the exploitation of labour (Bashizi & Geenen, 2015; Kelly, 2014).

Using a power-laden relational approach to institutions and poverty, we have further examined the catalysers that facilitate, exacerbate and prolong the exploitation of artisanal miners, which is a direct reflection of their marginalized (but dynamic) power position. If cooperatives evolve towards small-scale mining and start selling to exporters as commercial enterprises, as is indeed envisioned by the Congolese state, an associated capitalization may further perpetuate the relational poverty, as has been observed by Verbrugge (2015). However, as poverty and institutions are both social constructions resulting from power negotiations, individual and collective agency can alter them as well. That is why we call upon policy makers to, together with all stakeholders, thoroughly reflect on their vision for mining cooperatives and the role of the latter within the broader formalization process, as we explain in more depth in our policy brief (De Haan & Geenen, 2015). If artisanal mining needs to be formalized, a very first condition is the creation of more and suitable AEZs[37]. A second step is to facilitate the creation of cooperatives inside these AEZs, using a bottom-up approach and respecting cooperative principles such as open membership and democratic governance. In order to achieve that, cooperatives also need to work on their organizational capacity building with the support of NGOs and state services. After that they may create central selling points and start selling on behalf of miners in order to increase the latter’s bargaining position. We also strongly recommend the creation (or restructuring) of a federation of cooperatives for which staff members are elected democratically and which is representative for all stakeholders in the sector.

But this should be preceded by a thorough reflection on cooperatives’ goals. If the ultimate goal is to improve miners’ socio-economic position by increasing their financial returns so that they can contribute to local development, as well as to empower them, policy makers should align this vision with a supportive strategy that emphasizes inclusion and poverty reduction, prevents the exclusion of vulnerable actors from the supply chain, and invigorates bottom-up initiatives. If the goal is the move towards small-scale mining,

[37] This issue is being taken up at the policy level, but there still seems to be a lack of political will to invalidate so-called ‘dormant’ titles and/or to cede parts of industrial concessions.

then cooperatives must be assisted to establish business plans with a clear vision and investment targets and to access financial capital, technology and knowledge. However, if the cooperatives continue to be governed as they are, this capitalization of production risks to further enable elites to reinforce their power position and to maximize their revenue share, to the detriment of the miners.

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