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African Artisanal Mining from the Inside Out

Access, norms and power in Congo's gold sector

Sara Geenen

ROUTLEDGE

African Artisanal Mining from the Inside Out

Artisanal mining is commonly associated with violent conflict, rampant corruption and desperate poverty. Yet millions of people across sub-Saharan Africa depend on it. Many of them are living in the eastern Democratic Republic of Congo (DRC), home to important mineral reserves, but also to a plethora of armed groups and massive human rights violations.

African Artisanal Mining from the Inside Out provides a rich and in-depth analysis of the Congolese gold sector. Instead of portraying miners and traders as passive victims of economic forces, regional conflicts or disheartening national policies, it focuses on how they gain access to and benefit from gold. It shows a professional artisanal mining sector governed by a set of specific norms, offering ample opportunities for flexible employment and local livelihood support and being well-connected to the local economy and society. It argues for the viability of artisanal gold mining in the context of weak African states and in the transition towards a more industrialised post-conflict economy.

This book will be of great interest to researchers and postgraduates studying natural resources and development as well as those in development studies, African studies, sociology, political economy, political ecology, legal pluralism, and history.

Sara Geenen is working as post-doctoral research fellow with the Research Foundation Flanders (FWO). She is affiliated with the Institute of Development Policy and Management (IOB) at the University of Antwerp, Belgium.

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Acronyms

3T	Tin, tungsten, tantalum (derived from cassiterite, wolframite and coltan ore)
ADEPED	Action pour le Développement des Peuples en Détresse (Action for the Development of People in Distress)
ADMR	Action pour le Développement des Milieux Ruraux (Action for the Development of Rural Areas)
AEZ	Artisanal Exploitation Zones
AFDL	Alliance des Forces Démocratiques pour la Libération du Congo (Alliance of Democratic Forces for the Liberation of Congo)
ANR	Agence Nationale des Renseignements (Intelligence Service)
APEF	Action pour la Promotion des Enfants et de la Femme (Action for the Promotion of Children and Women)
ASM	Artisanal and small-scale mining
BBC	British Broadcasting Corporation
BGR	Bundesanstalt für Geowissenschaften und Rohstoffe (Federal Bureau of Geo-Sciences and Natural Resources)
CEEC	Centre d'Evaluation, d'Expertise et de Certification des substances minérales précieuses (Centre for Evaluation, Expertise and Certification of precious minerals)
CEO	Chief Executive Officer
CHDC	Congo Holding Development Company
CNDP	Congrès National pour la Défense du Peuple (National Congress for the Defence of the People)
CNKI	Comité National du Kivu (National Committee for the Kivu)
CODELU	Comité pour le Développement de Luhwindja (Committee for the Development of Luhwindja)
COKA	Coopérative de Kamituga (Kamituga Cooperative)
COMILU	Coopérative Minière de Luna (Luna Mining Cooperative)
COPEC	Coopérative d'Epargne et de Crédit (Savings and Credit Association)
CTC	Certified Trading Chains
CTCPM	Cellule Technique de Coordination et de Planification Minière (Technical Coordination and Planification Unit)

DGI	Direction Générale des Impôts (Tax Revenue Authority)
DGM	Direction Générale de Migration (Migration Service)
DGRAD	Direction Générale des Recettes Administratives et Domaniales (Administrative and Land Revenue Authority)
DMCC	Dubai Multi Commodities Centre
DPMER	Direction Provinciale de Mobilisation et d'Encadrement des Recettes (Provincial Revenue Authority)
DRC	Democratic Republic of the Congo
EITI	Extractive Industries Transparency Initiative
FAR	Forces Armées du Rwanda (Armed Forces of Rwanda)
FARDC	Forces Armées de la République Démocratique du Congo (Armed Forces of the Democratic Republic of the Congo)
FC	Congolese francs
FDLR	Forces Démocratiques pour la Libération du Rwanda (Democratic Forces for the Liberation of Rwanda)
FEC	Fédération des Entreprises du Congo (Federation of Congolese Enterprises)
GDP	Gross Domestic Product
ICGLR	International Conference on the Great Lakes Region
ICSID	International Centre for the Settlement of Investment Disputes
IPIS	International Peace Information Service
ITRI	International Tin Research Institute
iTSCi	International Tin Research Institute Tin Supply Chain initiative
LAV	Laissez l'Afrique Vivre (Let Africa Live)
M23	Mouvement du 23 Mars (Movement of 23 March)
MGL	Minière des Grands Lacs (Mining Company of the Great Lakes)
MIBA	Minière de Bakwanga (Mining Company of Bakwanga)
MMR	Mining Mineral Resources
MPC	Mouvement des Patriotes Congolais (Movement of Congolese Patriots)
NGO	Non-Governmental Organisation
OCC	Office Congolaise de Contrôle (Congolese Control Office)
OECD	Organisation for Economic Cooperation and Development
OFIDA	Office des Douanes et Accises (Congolese Customs Office)
OGP	Observatoire Gouvernance et Paix (Observatory for Governance and Peace)
OKIMO	Office des Mines d'Or de Kilo-Moto (Gold Mining Company of Kilo-Moto)
PAC	Partnership Africa Canada
RCD	Rassemblement Congolais pour la Démocratie (Congolese Rally for Democracy)
RMA	Ressources Minières Africaines (African Mineral Resources)
RNW	Radio Netherlands Worldwide
RPF	Rwandan Patriotic Front

SAESSCAM	Service d'Assistance et d'Encadrement du Small-Scale et Artisanal Mining (Support and Training Service for Small-Scale and Artisanal Mining)
SAKIMA	Société Aurifère du Kivu-Maniema (Gold Mining Company of Kivu-Maniema)
SAMIKI	Société Agricole et Minière du Kivu (Agricultural and Mining Company of the Kivus)
SOMICO	Société Minière du Congo (Mining Society of the Congo)
SOMIGL	Société Minière des Grands Lacs (Mining Society of the Great Lakes)
SOMIMU	Société Minière de Mukungwe (Mining Society of Mukungwe)
SOMINKI	Société Minière et Industrielle du Kivu-Maniema (Mining and Industrial Society of Kivu-Maniema)
UAE	United Arab Emirates
UJCC	Union des Jeunes Congolais pour le Changement (Union of Young Congolese for Change)
UMHK	Union Minière du Haut-Katanga (Mining Union of Upper Katanga)
UN	United Nations

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PART I

Prospecting African artisanal mining

1 Researching and rethinking African artisanal mining

In April 2008 I made my very first visit to Kamituga in the interior of South Kivu province, Democratic Republic of Congo. I saw miners carrying their shovels and pickaxes on their way to the underground mining shafts, traders weighing raw gold on hand-held scales in small, dark trading shops, women crushing hard rocks into a fine powder by hand. I heard the sound of metal on stone resonating against the hillsides. People were moving, hammering, pounding, battering, lifting, carrying, buying, selling, negotiating, groaning and cheering. Everything seemed to *work* in different senses of that word. At the entrance of one of the underground mining shafts, the owner had erected a signboard: *Qui Cherche, Trouve* (Those Who Seek, Shall Find). I didn't realise then, but the picture I took of him in front of his shaft would lead me through my research. The slogan encapsulates many of the practices, norms, hopes, beliefs and unpredictabilities of gold mining that I myself was about to discover. Yet, the slogan and the picture are in apparent contrast with our conventional image of mining in the eastern Democratic Republic of Congo (DRC), home to important mineral reserves, but also to a desperately poor population as well as a plethora of armed groups and massive human rights violations: a situation that has given rise to the common labelling of the region's mineral resources as 'conflict minerals'. The DRC thus serves as a textbook example of the resource curse. Yet, in this chapter I first want to explain why this book is *not* about the resource curse and why the links between mining and underdevelopment and between mining and conflict require some nuance.

It is frequently argued that the revenues generated by the DRC's mining sector have neither contributed enough to national development nor improved the livelihoods of the Congolese population (World Bank, 2008). According to World Bank (2008: 27) estimates, the gap between officially recorded taxes and potential or expected fiscal receipts, based on hypothetical growth scenarios, was enormous – US$ 26.7 million of recorded revenues against US$ 185 million of potential revenues for 2008–2012 and US$ 619 for 2013–2017. This gap was attributed to bad governance and weak institutional capacities. Countless publications also insisted on the adverse effects of the resource abundance on people's livelihoods, referring to the high incidence of poverty (Herderschee et al., 2012). This statement needs to be nuanced though, both in space and in time. The production and export of mineral resources have significantly contributed to economic growth and

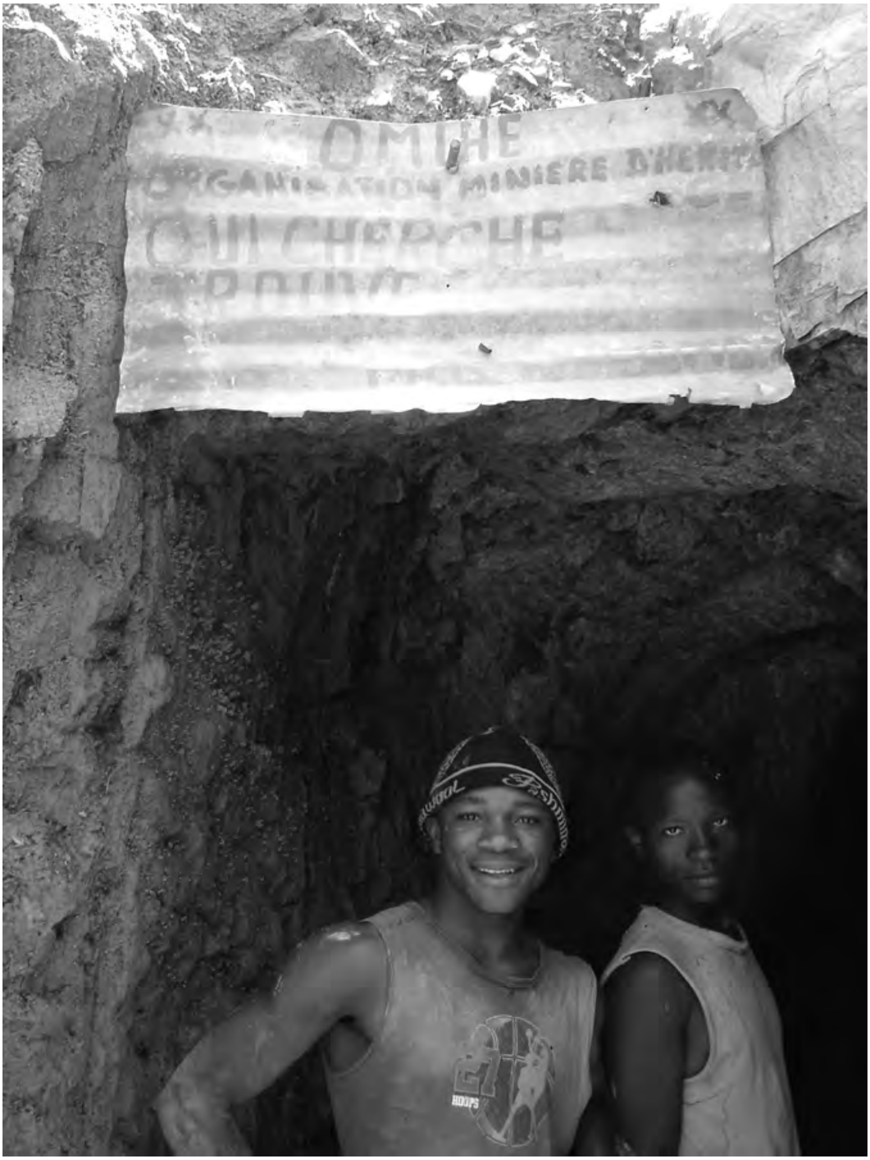

Figure 1.1 He who seeks, shall find. Mining shaft in Kamituga

development during certain periods in history, and have done so in recent years as well. Since 2003 the investment in large-scale mining has indeed led to spectacular growth (an average growth of 6 per cent per year) and helped the government to control inflation (Marysse and Tshimanga, 2013). The Extractive Industries

Transparency Initiative (EITI, 2012) reported that in 2010 the government's revenues for the top commodities amounted to US$ 876 million in taxes, fees and royalties, or 5 per cent of its GDP. This already surpasses the World Bank's most optimistic scenario in 2008. But this growth generated by large-scale mining has not (sufficiently) trickled down to improve the livelihoods of the Congolese population. Bad governance, incompetent negotiation of mining contracts and corruption impede the redistribution and productive use of the mining rents (Marysse and Tshimanga, 2013). There are also considerable regional differences. In Katanga province, industrial production of copper and cobalt is again at unprecedented levels (Cuvelier, 2011; Garrett and Lintzer, 2010; Marysse and Tshimanga, 2013). In the east, though, industrial production is now starting up again. Given the security and logistical challenges, until very recently almost all mineral production continued to occur through the activities of the artisanal miners.

The term 'artisanal' refers to a non-mechanised, manual mode of production, which often involves individual, group and family labour as well as simple tools and equipment. The difference between artisanal and 'small-scale' mining, also a frequently-used term, is that the latter makes use of small machinery and may involve small, or even semi-industrial, companies. In literature and policy, the terms artisanal and small-scale are often used interchangeably and referred to as ASM (artisanal and small-scale mining). In this book, I adhere to the term artisanal. Artisanal mining activities, as well as the trade in such minerals, are generally unrecorded and do not contribute to official state revenues (although, as shown below, they do generate non-official taxes). In other words, they are largely 'informal'. It is estimated, for example, that more than half the cassiterite and coltan production and 98 per cent of gold production (UN, 2014: par. 171) in the eastern provinces is not registered. For example, official export figures for gold from South Kivu remained below 100 kilos per year between 2008 and 2012, although real production is estimated to be around 4800 kilos[1] (see Tegera and Johnson, 2007; De Koning, 2011). The number of people employed in artisanal mining is impressive and ranges between 200,000 and 350,000 in North and South Kivu (estimated by Pact, 2010, and D'Souza, 2007, respectively). Using the World Bank's methodology of allowing five dependants per artisanal miner, approximately 1.00–1.75 million people are thought to depend on artisanal mining for their livelihood in the Kivu provinces, or 9–17 per cent of the total population. Factoring in supply chains, trade and the broader service economy, the number of people directly and indirectly dependent on artisanal mining becomes greater still. It is true that there are severe health, environmental and social problems in artisanal mining. But despite those, and despite its informality, artisanal mining does improve the livelihoods of a considerable part of the population.

The link between mining and conflict is most obvious in the east, where during the 1990s a war economy integrated mineral exploitation and trade. Numerous studies have demonstrated that the hunger for mineral resources motivated both rebel groups and government forces to fight for control over mines and strategic trade routes, and that the profits this generated enabled them to purchase arms and continue fighting, which obviously resulted in disastrous development outcomes.[2] The minerals coming from this region (tantalum, tin, tungsten and gold)[3] have, as illustrated in Chapter 6, thus been labelled 'conflict minerals', not only during the war but even now. However, the conflict mineral stereotype captures only part of what is going on in the eastern mines. First, although mineral exploitation and trade indeed constituted an important dynamic of the conflict, this does not mean that it caused the conflict. Causes were more structural and included the legacy of a long history of dictatorship and neopatrimonialism, a profound economic crisis, ethnic and political grievances and interests at the national and local level (Autesserre, 2012). Second, the mere presence of mineral resources does not offer a sufficient explanation for the outbreak of violent conflict. For example, the diamonds in Kasai province have not triggered a war as in the east. Katanga province again has its own dynamics and actually became increasingly violent in 2013 (Johnson, 2013). Nevertheless, only minerals originating from the east are labelled conflict minerals. Third, minerals are not the only source of finance for armed groups. They also rely on taxes from citizens, revenues collected at roadblocks, or trade in charcoal, timber and bananas (Seay, 2012; Laudati, 2011). Consequently, cutting them off from mining activities alone is unlikely to stop the violence. Fourth, the problem of conflict minerals needs to be seen in a broader governance context. The mapping exercise carried out by IPIS (International Peace Information Service) in collaboration with the Congolese mining administration surveyed approximately 800 sites in North and South Kivu and parts of Maniema, Katanga and Province Orientale (Spittaels and Hilgert, 2013). The research team noted "the presence of" non-state armed groups in 200 sites and the Armed Forces of the Democratic Republic of the Congo (FARDC) in 265. The 2014 report by the UN Group of Experts still noted the presence of the national army in Misisi and Mukungwe (until September 2013) and non-state armed group involvement in a few mines spread over the different provinces. While these reports use terms such as 'presence', 'interference', 'involvement' and 'control', the concrete mechanism through which armed actors profit is taxation. This taxation is described as 'illegal' (Spittaels and Hilgert, 2013: 8) because it is not provided for under the Mining Code. It is often "periodically collected", but actual amounts are hardly mentioned (Spittaels and Hilgert, 2013; UN, 2014) so it is difficult to estimate what the level of extortion really is. Moreover, the level of violence involved also remains obscure.

Such a blunt association between taxation and financing war seems to ignore governance realities in the DRC, where illegal taxation practices and coercion are part of day-to-day local governance carried out by state as well as non-state, and armed as well as non-armed, actors. Coercion is in fact the use of force to obtain compliance and may involve varying degrees of violence. It does not necessarily mean that miners are working at gunpoint. In their article on governance in Bisie mine, Garrett et al. (2009: 11) described the prevailing governance system as 'coercive governance' wherein the security provider has set up a hybrid state and non-state taxation system in exchange for protection. In Bisie mine, for example, the national army has generated up to US$ 350,000 per month. But other state actors such as the Migration Service (DGM), the Intelligence Service

(ANR), the police and the Health Department were involved in 'illegal taxation' at roadblocks too (Garrett et al., 2009). In other mines so-called 'big men', who may derive their power from a variety of domains (business, politics or customary power), control and tax mining activities (see Cuvelier, 2013, for the case of Nyabibwe in Kalehe). Rothenberg and Radley (2014: 70) also documented the 'illegal payments' by the national army, mining police and other state agencies, but observed that "it is not always easy to distinguish one form of extracting payment from another in terms of how it should be described". This book provides more evidence for the involvement of different state and non-state agents in taxation and shows that these practices must not be equated with a narrow interpretation of 'conflict', 'coercion', 'informality' or 'illegality'. They are instead part of a governance system that is functioning not just in gold mining and trade, but in all sectors of the Congolese economy and society (Bayart et al., 1997; Englebert, 2003; Titeca and De Herdt, 2011; Trefon, 2011).

'Going underground' in the DRC

This narrative on conflict minerals definitely shaped and influenced my field research (2008–2012). When I approached some of the traders who had been accused in UN and NGO reports, their reaction was – quite understandably – one of suspicion at a minimum, and sometimes one of outright refusal. The following quote comes from a trader based in a popular neighbourhood in Bukavu, whose buying office was not explicitly mentioned in a UN report:

> I would like to help you, but I hesitate. I don't know who you are, for whom you work. According to international opinion mineral exploitation is the cause of the war in the DRC. Who knows? You could be among those who ask questions on behalf of the international community as well.

It is no coincidence that this quote was recorded in July 2009. Just before, Global Witness had published the report "Faced with a gun, what can you do?" on the militarisation of mining sites in the Kivus. While making valid points about militarisation and human rights abuses in mines, the report also tended to generalise the situation and picture all mines in the region as conflict mines, and all traders as criminals. This visibly caused unrest and frustration among the Bukavu traders, most of whom are indeed involved in smuggling, but it is difficult to determine the extent to which they are also involved in other criminal activities. Also, this was not the objective of my study, for my 'access' approach, as I shall explain, is non-normative and does not consider 'illegality', 'informality' or 'criminality' to be analytically useful concepts.

I focus on gold for different reasons. First, it is currently the most important subsector in the eastern DRC's artisanal mining economy, despite the fact that official production and exports are negligible. Since 2011 there has actually been a shift from 3T-mining (tin, tungsten, tantalum) to gold, which is attributed to recent regulation initiatives discussed in Chapter 6, but also to depleting reserves in some formerly big mines (Spittaels and Hilgert, 2013). Second, gold is the only mineral that is currently being exploited industrially in South Kivu. This has a lot to do with the rise in world market prices in the period between 2008 and 2013, which made it profitable for companies to start producing. Third, the gold commodity chain is interesting to study because it has particular characteristics. Given its high value and low volume, gold is easy to smuggle via Kampala in Uganda, Bujumbura in Burundi, or Tanzania, while the 3Ts typically follow different routes, often through the Rwandan capital Kigali. Fourth, gold derives its value not only from being a mineral commodity, but also from being a form of hard currency and source of foreign exchange. All this makes it interesting to concentrate on the gold sector. Since the aim of my research was to draw some valid theoretical and policy-relevant conclusions, rather than to claim representativeness or empirical generalisability over the entire province or country, I selected three gold mines (see Map 1 in the Appendix) as 'critical cases' or cases that have "strategic importance in relation to the general problem" (Flyvbjerg, 2006: 229). Following Flyvbjerg (ibid.), I argue that my cases can teach us something about artisanal mining as well as about the articulation between artisanal and industrial mining – something that is applicable beyond the Congolese context – for three main reasons.

First, I selected three cases that are different in terms of their historical trajectories. Kamituga is historically the most important gold mining town in South Kivu. It developed during the colonial period as an industrial town but soon also embraced artisanal mining. Artisanal mining and related activities boomed during the 1980s and again during the war period; by the time of my fieldwork the town had grown to somewhere between 100,000 and 150,000 inhabitants, up from about 56,000 before the war. The Twangiza concession encompasses Luhwindja, Burhinyi, Kaziba and Ngweshe chiefdoms. On this site, industrial production was limited in the past, but the Canadian gold mining company Banro has now proceeded into the exploitation phase and is concentrating its activities in Luhwindja, which is in a rural setting. In Mukungwe, a small, physically rather isolated rural village, gold has been extracted artisanally since the 1970s and violent conflicts over its control continue to this day. I interpret the particularities of these sites as outcomes of historical, institutional and political processes grounded in local, national and global realities. One of the dimensions of these realities is the relationship between artisanal and industrial actors and modes of production.

The second reason to choose these three case-study sites was because they occupy a particular position in the current mining landscape of South Kivu. Twangiza was the first mine in which the transnational gold mining company Banro entered into production. The struggles between the company and the artisanal miners there may serve as a possible warning to other parts of the concession, most notably Kamituga and Lugushwa. In the latter two sites, however, the institutional and power landscapes, including the nature of customary power, are quite different and industrial exploitation historically occupied a much more important place, which makes it interesting to see what the outcomes will be. Claims to Mukungwe, on the other hand, are highly contested between different customary, political and military power holders who also oppose the artisanal miners and Banro. The case studies thus nicely illustrate how one external event, namely the arrival of Banro, may play out differently in three diverse places. In this way, the study may contribute to a more general understanding of artisanal and industrial mining.

A third reason to choose these sites was their importance in terms of volumes of gold produced and numbers of people working in gold mining and related services. On the basis of the figures I have for production in Twangiza, Kamituga and Mukungwe – with all the limitations they present because real production is difficult to evaluate – I come to the following estimations. Total artisanal gold production in South Kivu province is estimated at 4,800 kilos (yearly average). The best estimates we have for production are 628 kilos in Twangiza, 618 in Kamituga and 480 in Mukungwe. This means that the sites I selected yield at least 1,746 kilos, or more than one-third of artisanal gold production.

Following the gold trade up to the provincial and regional levels, I also conducted research in Bukavu and Bujumbura, where most of the gold from South Kivu transits before its export to Dubai, East Asia or Europe. Bukavu was actually the operating base where I met traders and people from the mining services, as well as civil society and other researchers. Miners and traders from the interior also frequently travel to Bukavu, either to do business or because their family lives there. I spent about four weeks in Bujumbura studying the flows of gold into and out of the country.

Data were collected using observation and interviews. I interviewed (in-depth) 101 artisanal miners and 145 traders in total. I also interviewed 18 community members not involved in mining (in Luhwindja) and organised 20 group interviews with miners and members of the local communities. I talked to 35 respondents who had worked in, or currently work in, industrial mining. I conducted 30 interviews with respondents in the mining and public services, some of whom I interviewed several times. I also interviewed 25 people from civil society. In 2011, I set up a survey, which students and researchers from the Catholic University of Bukavu carried out. For this survey, we selected 258 men in four mines (47 in Kamituga, 127 in Lugushwa, 18 in Mukungwe and 66 in Luhwindja). In terms of the nature of the mining operations, we selected 40 alluvial mines, 5 open pits and 213 underground shafts. We targeted shaft managers because they are the people who know most about production and organisation at the level of the mining site or shaft; we geared our questions towards their work activities and mining projects. Given the absence of a sample frame for the population of shaft managers, a randomised sample was not possible. This is because the public services in charge of mining lack the means or human resources to keep reliable records of all miners; also, miners are reluctant to register officially. Nevertheless, armed with previous qualitative research in the same sites and data collected through initial contacts, the team tried to achieve a measure of stratification, in the sense that a fairly representative share of big and small production units (shafts) would be covered. I also collected numerous documents in the field – letters, decrees, reports of seminars and meetings, personal accounts, maps, photographs, statements, statistics, court judgments and newspaper articles. Finally, I looked at some personal archives,[4] as well as at the company archives housed in the Royal Museum of Central Africa in Tervuren, Belgium. These data were organised and analysed using NVivo software (Bazeley, 2007). NVivo allows for the organising of data in a systematic way, coding them and then seeking for linkages and patterns, so as to let concepts emerge and eventually generate theories. While some codes I used were constructed on the basis of already existing theories and concepts, others emerged from the empirical data, allowing for a dynamic process characterised by constant comparison and iteration. However, let me first situate my research in the growing field of African mining studies.

Researching African mining

Although the DRC is frequently cited as a textbook example, the contentious links between mining and development, as well as mining and conflict, have been much more broadly applied. This section provides a quick overview of the history of African mining, from colonial coercion and paternalism over 'informal' and 'illegal' artisanal activities to conflict mining. It provides a basis for rethinking artisanal mining in the next section.

Over the past two decades, several African countries have experienced marked economic growth thanks to the industrial exploitation of their oil and mineral wealth. Observers have even talked about a "new scramble for Africa" (Southall and Melber, 2009) as resource-poor countries and especially emerging economies feel a growing need to secure future supplies in mineral and energy resources. Bebbington et al. (2008) indeed showed how the geographies of investment and mineral extraction have undergone changes and shifted from western states to emerging economies, and from developed to developing economies. In 2010, sub-Saharan Africa accounted for 13 per cent of worldwide exploration budgets (Metals Economic Group, 2011: 4).

This new scramble of course refers back to the colonial scramble, when western companies received vast African territories in concession for the purposes of extracting and exporting their raw minerals. Companies governed these concessions as privately secured enclaves (Ferguson, 2005), from which the benefits invariably flew to the home countries' industries, instead of trickling down to local societies. The establishment of these enclaves caused the massive mobilisation and reconfiguration of local territorial space and society. In southern Africa, for example, government labour recruitment boards required chiefs to supply cheap labour from the rural areas (Harries, 1994; Jeeves, 1985; Moodie, 1994; Wolpe, 1972). Tens of thousands of migrant workers were compelled to work in low-waged underground gold and diamond mining. In the new urban centres, they were expected to adopt a European lifestyle and become submissive proletarians. From the 1930s onwards, companies, together with the colonial administration and the church, embarked on a 'modernisation' project, combining industrial development with paternalism and social engineering. In Central Africa, the Mining Union of Upper Katanga (UMHK) was one of the first companies to provide health care, schooling, leisure facilities and cheap food for workers and their families. The idea was to stabilise the workers in nuclear families, thus making it easier to control and discipline them, so eventually enhancing their productivity. "Unfortunately", Cuvelier (2011: 74) wrote, "paternalism tended to degenerate into totalitarianism due to the fact that the company put everything at the service of yielding as high a return as possible". This whole system induced a significant change in the lives of many Africans. They entered a modern and capitalist world to which, because of segregation and racism, they could never really belong. While gaining political independence in the 1950s and 1960s, economically many African countries remained dependent on mineral exports and foreign capital. Yet, new regimes such as Zaire, Ghana and Guinea nationalised their mining sectors and created state-owned companies in an attempt to control and centralise revenues (Campbell, 2009). However, in these mines undercapitalisation, lack of investment, insufficient maintenance and corruption soon led to a slow decline in production. In Tanzania, industrial mineral production diminished because of Nyerere's emphasis on agricultural development (Bryceson and Jønsson, 2014: 13). In countries like Zimbabwe, Namibia, Angola and Mozambique, nationalist insurgencies targeted the large-scale mining companies, for they were believed to represent the interests of colonial governments (Bryceson and Jønsson, 2014: 4). Oil price rises and fluctuations of other commodity prices in the 1970s pushed many African economies into deep crises. In the 1980s, in an attempt to reverse the situation, the international financial institutions required African countries to adopt structural adjustment programmes, which included privatising the mining sector. While these reforms succeeded in attracting private capital, stimulating mineral production and promoting economic liberalisation, by the end of the 1980s it had become clear that they also had serious side effects, for example unemployment, increased social inequality and environmental degradation. Campbell (2004) attributes these negative outcomes to the redefined role of the state. Policymakers, however, pointed to weak governance as the crux of the problem and recommended that African governments implement regulatory and legal reforms (including a mining code, contractual stability, a guaranteed fiscal regime, profit repatriation and access to foreign exchange) to attract foreign private capital (World Bank, 1992). The state thus became the regulator and promoter, with the private sector being the owner and operator (Campbell, 2004).

The artisanal and small-scale mining sector boomed in many African countries in the 1980s. Some accredited this to the disastrous effects of the structural adjustment and neoliberal policies from which artisanal mining emerged as the only viable option in a context of declining employment and increasing pressure on the land (Hilson and Potter, 2005). As smallholder farming became less attractive as a livelihood, artisanal mining provided a feasible supplement or alternative (Andrew, 2003; Hilson, 2010 and 2011). Mining may also be a seasonal activity, thus allowing people to diversify their income portfolios and build safety nets (Banchirigah, 2008; Banchirigah and Hilson, 2010; Maconachie and Binns, 2007). Besides those factors that push people towards artisanal mining through