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Relations and regulations in local gold trade networks in South Kivu, DRCongo

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Abstract

This article aims to contribute to a better understanding of the local gold trade in Eastern DRCongo, a sector in which most activities are not officially registered and take place outside the regulatory framework of the state. Starting with the research on informal economies and networks, we find that in the absence of strong public and market institutions, personal relations are valued higher than pure market exchange. This is also demonstrated in the study of the local gold trade network. On the basis of fieldwork and in-depth interviews with traders and diggers, we describe how and why relationships are built in this context, what their nature is (credit and debt) and how they are maintained, reinforced and regulated. In order to fully understand the functioning of the network we also have to frame it in its specific local and historical context. The close connection between context and network dynamics is epitomized in a number of structural characteristics, which shape and are given shape by the network dynamics. This connection, and the specific relations and regulations in the network, need to be recognized if we want to make sense of formalization, a topical issue Eastern DRCongo.

Keywords: Informal economy, gold trade, artisanal mining, credit.

Introduction

This article aims to contribute to a better understanding of the local gold trade in the DRCongo. The gold trade in this region is largely 'informal', meaning that an estimated 95% of the production is mined, traded and exported without being officially registered.[1] As in other countries, efforts are being made in the DRCongo to 'formalize' the gold sector and bring it under official control. [2] This article may also help us to make sense of formalization processes by studying the 'micro regulations'[3] of the gold trade.

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Research on informality initially focused on "income generating activities that take place outside the regulatory framework of the state"[4]. The informal system was thus considered as a residual or a parallel form of socio-economic organization or, in a more political sense, as a viable alternative, a means to 'disengage' from the state[5] in a context where the state is weak or fails to perform its basic Weberian functions. Since the 1980s, the literature on the informal economy has provided us with a range of original terms to denote the system of economic activities that take place outside the framework of the state: second or real economy, parallel economy, shadow economy, transboundary formations[6]. In her influential work on the 'real' economy of former Zaïre, Janet MacGaffey showed that engaging in the second economy was not a mere economic survival strategy, but also a means to 'fend for yourself' and compensate for the inability of the state to provide services, infrastructure and protection to its citizens[7], and thus provided an alternative form of socio-economic organisation. But informal economic activities have become so pervasive that the division between 'formal' and 'informal' has become blurred, which has led to analytical confusion and critiques on the concept of 'informality' and the notion of 'disengagement'.[8] For Roitman for example, analyses of power, domination, and access to and control over resources are overseen in the dualisation of 'state' versus 'society' and 'formal' versus 'informal': "one can hardly disengage from something without engaging in something else".[9]

In the mid-nineties, the analytical focus shifted from the informal economy to the study of social networks, or to "the organizational role of social ties that shape economic behaviour outside the state through embedded relations of solidarity and trust".[10] Many authors have demonstrated that personal relations are central to social and economic life in the absence of efficient economic markets or in weak states[11], and that in these contexts, personal relations generate the trust[12] that is necessary for economic exchange.[13] Some authors, in the same 'disengagement' logic, have considered social networks as efficient solutions to state failure and as promoters of economic development. This body of literature argues that African entrepreneurial and trade networks constitute an important social capital and development potential, which is only limited by the constraints of dysfunctional states.[14] The authors emphasize the agency of ‘informal’ livelihood networks and the potentials for “governance without government”.[15]

Another group of authors argues that African social networks represent social liabilities that are inimical to economic development since they are “plagued by poverty, parochialism and predation”.[16] A more extreme formulation of this idea is provided by the studies on ‘war economies’ and ‘criminalization of the state’, which put a strong emphasis on the criminal and predatory nature of African informal networks.[17] Most studies on mineral resources’ exploitation and trade in the DRCongo fall under this category. While Janet MacGaffey was still able to explain artisanal exploitation and smuggling as a viable exit- and accumulation strategy,[18] the literature since the late nineties has almost exclusively focused on conflict, state failure, armed groups, plunder and criminal networks.[19] The stage is set by Bayart, who states that “Africa is inserted in the international system through economies of extraction or predation.[20] This is most visible in the extraction and trade in mineral resources, hence quickly labelled as ‘conflict resources’.

However, as Titeca and De Herdt argue, it is not useful to depict mineral exploitation and trade activities “exclusively in terms of their illegality or criminality” because the notions of illegality and legality are always contested in spaces like borderlands (which they study), mines and gold trade points.[21] Second, ‘informal’ is not necessarily, or only partially, ‘illegal’ and ‘illegal’ is not the same as ‘criminal’. As the state may define something as illegal, the boundary between legal and illegal is equally susceptible to political pressures.[22] In this sense the notion ‘a-legal’, as a system where it is not possible to act legally because the state either does not facilitate or does not enforce law application, put forward by Garrett and Mitchell when analysing Congo’s mineral sector may be more useful.[23] Besides, activities which are qualified as being ‘illegal’ may be considered very legitimate, at least more legitimate as those carried out by the state, in the eyes of people involved. Titeca and De Herdt convincingly show this in the case of the cross-border trade, which is seen as a legitimate source of survival, a ‘moral economy’, “while attempts by the government to regulate this trade are seen as illegitimate”.[24]

In this article we focus on gold trade at the local level and on the network of small-scale miners and traders in Kamituga.[25] First, we think that such an analysis can contribute to our understanding of artisanal exploitation and non-official trade.[26] Second, it may help us better understand the linkages between the 'formal' and the 'informal', and attempts to 'formalize' this sector. Kamituga has an interesting history of industrial and artisanal gold exploitation, and is the largest gold mining site in South-Kivu, with more than 100.000 inhabitants, which justifies its choice as a case-study. But in order to fully understand this particular network, we first need to study it in its particular context, for its local and historical context critically shapes the functioning of the network.[27]

The bulk of this article is based on 61 in-depth interviews with agents and small traders in Kamituga, and 15 interviews with intermediate traders in Kamituga and Bukavu in July and August 2009. In addition, many shaft owners, diggers, intermediate traders, master traders, government officials, local leaders and members of civil society were interviewed, documents were studied and on-site observations were made during four different fieldwork periods in March/April 2008, July/August 2009, March 2010 and January/February 2011[28]. Over the years and with the valued help of some Congolese research assistants, we managed to establish relationships of trust with the main actors in the gold sector, which helped in gaining access to the data we analyse here. In this article we make grateful use of small and some longer excerpts from interviews in Kamituga and Bukavu in 2009, which were carried out in Swahili (literally transcribed and translated into French) or in French, with traders who wished to remain anonymous, because of the sensitivity of many issues linked to gold exploitation and trade.

Local and historical context of the gold trade

Kamituga is situated about 180 kilometres south-west of South-Kivu's provincial capital Bukavu. After the discovery of gold deposits in the region in the 1920s, industrial exploitation quickly started. The town of Kamituga emerged as a 'classical' colonial mining camp, where the company (*Minière des Grands Lacs* or MGL) provided housing for the workers, health care, education, food provision and leisure facilities.[29] The town and its surrounding concession were only accessible for workers and its spatial organization was based on a segregation principle. Shortly after independence, workers started to protest against the working conditions; they demanded higher salaries and denounced the differences between European and Congolese workers[30]. They also started to contest the spatial restrictions. Many people from neighbouring villages came to settle in Kamituga, hoping for job opportunities and access to social services. Small traders set up their businesses in town.

The coming to power of Mobutu dramatically changed the policies towards the mining sector. In an attempt to acquire more autonomy from the former colonizer, the state became increasingly involved in the productive sectors of the economy. This eventually resulted in the nationalization of a number of mining companies.[31] The Zairianization measures in 1973 had a disastrous effect on the national economy and marked the start of an economic crisis, to which the large part of the Congolese population responded by engaging in unofficial economic activities. [32] From the mid seventies on, more and more people in Kamituga started digging in MGL's (which was replaced by 'Sominki', *Société Minière et Industrielle du Kivu*, in 1976) abandoned mining shafts. The company allowed diggers to work in abandoned shafts. But artisanal diggers also infiltrated in the main production shafts with the explicit aim of stealing ore from the company, which was not tolerated.[33] These diggers were pre-financed by local traders, who bought tools, clothes, food, and who sold the gold to traders in Bukavu. The latter sold the gold in Bujumbura, which remained the most important trading hub until the early nineties.[34] This way, an unofficial and 'parallel' system of artisanal gold exploitation and trade emerged, with well-established links to the neighbouring countries.

At the national level, the persistent economic crisis forced Mobutu to take some drastic measures. One was to alleviate the state's control over the exploitation of mineral resources, hence the 'liberalization of the exploitation and trade in precious minerals' (gold, diamonds) in 1982. The new law provoked an influx of artisanal diggers and traders to Kamituga. By 1987, it was estimated that 30% of young men in South-Kivu's Bushi area (from the Bukavu region) had left their villages and fields to go to the mining sites.[35] In these villages, there was an increasing pressure on land, which incited mostly young men to look for economic opportunities elsewhere. Kamituga is thus an ethnic melting pot. MGL already recruited workers all over and outside South-Kivu, as far as Rwanda and Burundi. Besides, liberalization in the eighties and the wars in the nineties attracted even more people to the gold sites, among which many Bashi from the Bukavu region. At the level of the traders, there are some immanent tensions between the local Barega traders, who consider themselves autochthones, and the Bashi, who have closer links with the provincial capital.

In addition to the boom of artisanal mining, Sominki's industrial activities had already been put under pressure by the persistent economic crisis, falling commodity prices, and deteriorating infrastructure. But the 1996 'liberation war' abruptly ended all industrial activities. During the second war (1998-2003) RCD (*Rassemblement Congolais pour la Démocratie*) established control over Kamituga's main mine (in Mobale mine they confiscated half of the production).[36] But RCD was never able to control the unofficial trade system, neither at the local, nor at the regional level; or to establish an 'asymmetric' relationship between the miners and the army.[37] Since 1996 all activities in Kamituga have been artisanal and small-scale. In 2009 there were 150 to 200 mining shafts and in the town centre (each employing some 5 to 10 artisanal miners, with some shafts operating up to 50 miners) and at least 17 large and 60 small gold buying offices.[38] About 20 of these buying offices are officially registered with the local administration. This means that they have bought a licence, but they only declare part of their production officially, to avoid an excess of taxes. Buying offices which are not officially registered also pay a range of official (fixed in the Mining Law) and non-official (levied by state agents, military or customary authorities but not recognized in the Law) taxes. The owners (*patrons*) of these buying offices usually live and work in Bukavu. Some of them employ commission agents in different neighbourhoods in Kamituga, or in other mining sites like Lugushwa or Fizi. This system allows the owner to officially register and pay taxes in one office, while in reality operating several offices. It is a strategy to diversify and thus guarantee a constant supply and to avoid risk.[39]

At this point it is important to introduce some structural characteristics of this environment that have given and are giving shape to the network we are studying. First, the relationships between miners and traders are moulded by a constant interaction between the local and the national, and up to regional and global scales. These ‘interactions’ may be embodied in national or international policy decisions (like Zairianization, liberalization, or certification and formalization), in global economic dynamics (fluctuating commodity prices), in regional dynamics of conflict (attempt by RCD to establish control), in global cultural expressions (consumption patterns, miner’s access to ‘modern’ items like cell phones, movies, fashionable clothing) or in regional economic exchange. It is important to mention that gold is almost the sole source of foreign currency, and thus “virtually the only link between the local and international economies in situations where currencies are unconvertible, and where hard currency is scarce or is allocated only to those with political connections”. Congolese traders use gold not only as a trading commodity, but also as a source of savings and a way to get access to dollars. This way, the gold trade energizes the entire provincial economy.

A second structural characteristic is Kamituga’s spatial organization and its isolation/accessibility. As we said, the restrictions that were initially in place on settling in the concession could no longer be enforced after independence; and traders more and more settled down in the town centre. This created a space for traders and miners to engage in exchange relationships, which evolved into the personalized relations we are observing rights now. We have also shown how artisanal mining from the 1970s on started to occupy the space previously controlled by industrial mining. Due to the renewed interest for Kivu’s mineral resources in recent years, these dynamics may turn around. This will undoubtedly have an impact on the existing networks, putting them under pressure or transforming them.

The isolation or accessibility of the town, in the sense of its geographical location, also matters. During the war period for example, Kamituga was only accessible by plane. This favoured a boom of aviation companies who transported and sold the gold production, while bringing consumer goods back into town.[40] Due to increasing transportation costs, it also induced a greater centralization of the gold trade into the hands of a few powerful economic actors, based in Bukavu. Since 2009, the *Route National 2* linking Bukavu and Kamituga has been made accessible again. Immediately a number of bus companies started providing daily services, which facilitated local traders and reduced transportation costs. But it also facilitates the direct penetration of Bukavu-based traders in the local market.[41] The latter offer higher prices, since they work with fewer intermediaries, and thus come into competition with local traders. A number of security incidents however on the same road (for example in July 2009 and in February 2011) again hinders transport possibilities and constrains the functioning of the network, since traders take greater risks in evacuating their production and providing cash money. A final point is its accessibility in the sense of access to information and communication. Most traders now own a cell phone, and/or have access to the internet. They use it to get almost daily information about the world market price, on which they directly base their calculations.[42] In terms of power relations, this access to price information has dramatically strengthened their position when they have to bargain over the gold price.[43]

Third, the network is characterized by blurred boundaries between 'legal' and 'illegal', 'formal' and 'informal'. As the historical overview has shown, this situation originated in the seventies. Be it as artisanal miners working in abandoned shafts, intruding in the company's shafts, as workers for the company or as traders buying from artisanal miners, people have always crosses boundaries between 'formal' and 'informal'. Nowadays, this is visible in the behaviour of miners and traders, who only partly comply with official state laws. It is also visible in the practices of state agents, who may use their portion of 'legal command'[44] to extract non-official taxes. To sum up, it is problematic to use 'the state' as a cut-off point. At the one hand, the economic exchange in the gold sector clearly does not follow official regulations. On the other hand, the state is not absent in this context and economic activities don't completely fall outside the framework of the state, since many traders register part of what they buy, and they pay a range of non-official taxes, which may be levied by official state agents.[45] The authorities in place also constantly engage and disengage with the sector, which they find difficult to control. Finally, the flow of 'formal' and 'informal' is encouraged by the nature of the commodity itself. Gold is easily transportable and has an extremely high value/ volume grade, which makes it easy to smuggle. This fact also influences personal relations, as it provides opportunities and constraints for both 'formal' and 'informal' exchange, norms and regulations.

A local gold trade network

In what follows we focus on the network of small-scale miners and traders in Kamituga. We find that their interactions are based on personal relations, rather than on pure market exchange. This is a very common finding in research on economic exchange.[46] Yet what this study contributes is a detailed empirical description of how and why relationships are built in this specific environment, how they are maintained, reinforced and governed, and what this means in the context of 'informal' gold trade. The gold sector is often characterized as chaotic and under regulated, but this case shows that exchange between small-scale miners and traders is highly regulated and a large part of it follows clearly defined patterns.

Building relationships

Looking at why and how small-scale miners and traders interact, one quickly finds that they are both compelled to do so. Small-scale miners on the one hand extract small quantities of gold, which are immediately sold on the spot. One of the reasons is that they prefer cash money for immediate consumption. By doing this, they also avoid the risk of waiting, accumulating and travelling to Bukavu, where they would have to establish new relationships. Thus they remain dependent on local traders. In expectation of reaching the gold veins inside the shafts, miners also need tools, food, drinks, clothes, torches, etc. for their daily survival. Shaft owners need more considerable financial means to invest. They have to buy tools (shovel, chisel, torches) and provide for the workers (food, money, shelter) during the preparatory phase. Shaft owners also face technical limits. The deeper one reaches, the more difficult it becomes to circulate oxygen and to evacuate the extracted stones and, more importantly, the groundwater. Therefore they need to buy small machines such as water and oxygen pumps, dynamite to excavate the stones and petrol. As there are no other credit facilities available, shaft owners turn to traders for making these investments.

Traders for their part need a constant supply of goods. If the shafts are not producing, there is nothing to sell. In 2009 quite some traders complained about supply shortages due to the difficulty of reaching productive gold veins, since decades of artisanal mining in Kamituga have left some upper soil layers exhausted. Therefore additional investments have to be made. Traders say that ‘it is impossible to have a supply of gold without sponsoring or financing miners and shaft owners’.[47] Keith Hart observed the same phenomenon on the Accra market: ‘The interdependence of both parties is based on the fact that sellers are subject to unpredictable shortages and gluts of supply and must have a steady clientele, while the buyers of course need to eat when they have no cash.’[48]

Because of this mutual dependency gold traders and miners repeatedly interact with each other. They personalize their relationships in order to reduce uncertainty. This process has been characterized as clientelization or the ‘tendency for repetitive purchasers of particular goods and services to establish continuing relationships with particular purveyors of them’.[49] As Clifford Geertz notes, clientship in the market is ‘a reciprocal matter, and the butcher or wool seller is tied to his regular customer in the same terms as he to them’. These personal, reciprocal relationships are not confined to miners and traders. Small traders and large traders interact with each other on a similar basis. As we have said, the system of traders, usually based in Bukavu, and commission agents, based in and around the gold mining sites, is widespread. The former use their agents to diversify their supplies and to avoid risk, while commission agents work with the funds put at their disposal by their *patron*. They make agreements to either pay a monthly salary, or to give them a share in the profit. Clearly, the owner of the buying office decides on this share, and is thus in a more powerful position. Yet, commission agents also make extra profit by cheating, for example with the manual balance they use for weighing the gold, or by buying quantities to sell elsewhere.[50]

Some relationships in this network are rooted in (extended) family networks (kinship); sometimes the actors are mere acquaintances (familiarity). In the case of *patrons* and commission agents, familiarity is a necessary condition. Commission agents say they have been asked by the boss because they knew him and were judged suitable for the job. Some agents have been recruited being family members, but kinship is not a necessary condition. In many cases it is a sufficient condition though, since it is difficult to refuse a brother a job. Some of the larger buying offices in Kamituga have several small offices operated by family members (typically brothers and brothers-in-law).[51] However, interviewees also said it is more difficult to collaborate with kin, since it limits you in the sanctions you can apply and introduces issues of seniority and moral pressures.[52] The case of miners and traders is different. They often don't know each other before their first transaction, and they really have to build up a relationship. The next section explains what exactly this relationship consist of.

Credit and debt relationships

In the previous section we already indicated that the socio-economic relationships are based on 'sponsoring' or 'financing'. Our interviewees would occasionally use the French term *crédit*, but when talking in Swahili (most of the time), they would use the term *deni* (plural: *madeni*). This literally means 'debt'. It thus tends to lay more emphasis on the indebtedness (as a characteristic of the relationship) than on the credit (money or goods) itself. Indeed, we see that the long-term relationship is valued higher than the immediate monetary benefits. In his work on the Frafra migrants in Ghana, Keith Hart already found that 'credit is […] the most prominent feature of buyer-seller relations; and you do not bargain if each side has a long-term arrangement to protect.'[53]

In Kamituga this credit takes different forms. The first category includes small credits in the form of money, tools, food and water, batteries for torches or clothes, granted to individual miners. Some interviewees label them as 'gifts', but they have to be repaid in the form of a supply (gold presented to the trader for sale). In other words, these are no pure gifts.

They have a social meaning "within a well-defined network of obligations", as Granovetter described it.[54] Secondly, large credits are granted to shaft owners and take the form of investments in the shafts. Sums can run up to 5.000, 50.000 or even 100.000 USD, depending on the size of the buying office and the needs in the shaft. Some debts have been outstanding for a long time, and can be divided over different shafts. One trader told us he has unsettled debts since 2002. All this time the debtors have been working in the mining shafts he sponsors, even outside Kamituga (on gold and cassiterite [tin ore] sites).[55]

When the team of miners reaches the 'production' phase, the shaft owner is required to sell his production at the trader's place. The trader will first of all aim at recovering his investments, and secondly also take a part of the production. Usually the partition is done according to oral agreements that were fixed at the beginning of the project. When it comes to dividing the haul, conflicts may arise and new negotiations may start. Another possibility is that a mining project fails to generate an output, or that the miner, who took the credit, suddenly disappears. According to our respondents, this happens frequently. But they take it as 'part of the job'. Sponsoring miners and pit owners is a necessary investment, a risk you have to take. The granting of large credits clearly promises greater returns, but also involves higher risks. One agent said he will never grant credits to shaft owners, because 'when you lend money to those people, they adopt the spirit of a thief'.[56] When asked about smaller 'gifts', the same commission agent says he does give them: 'They [diggers] can buy some beans with the 500 or 1000 Congolese francs I give them. They don't have to pay it back. I do this to attract clients'.[57]

This confirms the point that handing out small amounts is a commercial strategy. When asked about their strategies to attract clients, traders answered: 'I give them beans to eat, buy them some petrol for the water pump or some branches to shore up the shaft'[58] or: 'They are my friends and they usually come to me. You help them with a little money, they go to the shafts and when they return, they will pay you back'.[59] These are the most obvious examples of reciprocal exchange, in the sense of exchange of 'goods, services, information, or money in exchange for future compensation in kind'.[60] In the course of a subsequent transaction, when the digger wants to sell his product to the trader, it will be harder to bargain about the price, although this also depends on the quantity (the more you have to sell, the stronger your bargaining position).[61] A miner in this case mostly accepts the price, whereas he might be able to get a higher price in another buying office, or as a miner told us: "We discuss, but they impose."[62] This makes the miner for the second time dependent upon the trader.

Maintaining and reinforcing relationships: friendship and trust

Having explained how and why these relationships are built, and how they materialize into credit and debt relations, we now explain how they are maintained, reinforced and regulated. Let us take the case of a miner who steps into a small buying office, advertising its services in Kamituga's main street. He tells the agent that he is working in a mining shaft, and that he needs a sponsor. The first time, the agent will give him a small amount (a few hundred Congolese franks to buy some food or a beer). If he comes back and has something to sell, he may receive a higher amount. Step by step the relationship is built and reinforced, as the following quote by a commission agent demonstrates:

> In order to have customers first you need to sponsor them. You need to create a relationship. When they come here, they tell you: "We would like to go into the job, but we don't have money to buy this and this." So you give them. You take a risk by giving them, because they can run away. But when they get something [gold], they must come back to you. Then the friendship is going on.[63]

Interviewees often characterize this relationship as 'friendship'. But how much does friendship /affection/ empathy matter, and how much is it a matter of risk calculation/ repeated interaction/ trust? In this context it seems to be a subtle hybrid of 'affective' and 'instrumental' friendship. First, there is definitely a 'moral economy' of the gold sector in the sense of a feeling of belonging together and sharing experiences. In his research on gold mining in West-Africa, Tilo Grätz found that the cohesion among miners is based on "the development of moralities and risk sharing arrangements in the work sphere; comradeship and friendship ties in peer groups of migrants; the sociability of shared leisure time in the mining camp; and common modes of communication and consumption."[64] In Kamituga this cohesion seems to be particularly strong among miners, and between *patrons* and commission agents. But miners and traders also call each other 'friend' (*rafiki)*: "We are friends in the first place, after that I am also his client."[65] Keith Hart defines friendship as 'the negotiated order of free individuals joined by affection and shared experience rather than by legal sanction or the ties of blood.'[66] But this view underestimates the instrumentalist elements in friendships among miners and traders in Kamituga.

In our discussion of credit and debt relationships, it was clear that these relationships, possibly evolving into friendship, primarily serve a commercial aim. Therefore there are definitely elements of rational cost-benefit analysis and risk calculation involved. Before a trader grants a credit to a miner, he must find out 'whether he normally pays his debts, whether he is no swindler'.[67] In other words, they carefully consider the qualities and weaknesses of a client, but they also evaluate his project and his mining shaft. The following quote illustrates that credits are not granted on an accidental basis:

> So before launching the adventure, I already know that this gentleman has found some gold. He just has some difficulties to continue the work. In this case, I can support his shaft, because I know that at least something will come out. He only needs a sponsor. In brief, if you know the shaft, you can support the owner. We do not invest randomly.[68]

This introduction of guarantees for cooperative behaviour can be interpreted as a consequence of the distrust mechanism. Distrust is in fact the expectation that others will not act in your best interest, that their behaviour might even harm you. These risks can be mitigated by taking some precautions, in this case gathering information about the person and his project. 'Trust' is then usually defined as the incorporation of risk in the decision whether or not to interact, based upon information gathered from repeated interaction with this person.[69]

What do interviewees then mean when they tell us that 'the gold sector is entirely characterized by trust', for which they commonly use the French word *confiance*?[70] For them, trust is something you deserve: "if you deliver a good service, I will grant you *confiance*"[71]

Moreover, it is a valuable quality which will allow you to 'grow' in this business. This is well illustrated in a story about one of the largest traders in Bukavu, who used to be a commission agent and rose from the ranks, thanks to his trustworthiness:

> One day his car caught fire on the way to Bujumbura. If he would have been dishonest, he would have said that the gold also disappeared in the fire. Yet he saved the gold and told his boss so. That's how he got his trust. He wouldn't be where he is now, if he wouldn't be honest. Now he gives out millions of dollars, on the sole basis of trust.[72]

Trust thus develops over time, as Granovetter also emphasized.[73] Once trust has been 'deserved', one becomes an 'honourable client' (*clients d'honneur*). At this point, traders can ask no written agreements anymore. Even more, this would be considered as an insult towards honourable clients. When asked whether it had ever happened to him that a debtor did run away with the money, a trader in Bukavu was surprised. 'I thought I already said that we only grant loans to honourable clients', he said. The interviewer then asked how someone becomes an honourable client.

> If we have seen him ever since 2006 until now. That's what we call honourable. Since 2006 he has never left us, so we will give him money whenever he needs it. We can even give 10,000 USD if he wants. He will later bring his production to us.[74]

Contrary to what this might suggest, these networks are not hermetically closed. Both diggers and traders have the freedom to make other transactions, as long as they respect their clientelist relationship as well, this means bringing (a part of) the production to the trader, or continuing to give (small or larger) credits to the digger.

For traders, trust is thus a way to decrease their transaction costs and find guarantees for successful future transactions. In order to understand why this is so crucial, we must go back to some of the structural characteristics shaping the network. First, this system of relations and exchange is a way to escape from state intervention, which is perceived as illegitimate (as in Titeca en De Herdt's border region) because it only implies more taxation. Miners and traders frequently complain about the multiplicity of taxes (*tracasseries*), for which they see no redistribution. They would surely be willing to pay, provided that the state would dispense public services in return. This relates to MacGaffey's argument, saying that the second economy in Zaire is highly political.[75] Second, traders are constantly moving between 'informal' and 'formal', 'legal' and 'illegal'. On the one hand, they are reluctant to formalize, because of a limited confidence in the state. But at the same time they may decide to officially register in order to avoid troubles (*tracasseries*). They also need to build in certainties when doing business, hence the governance of their relationships as we described it. Third, there is no infrastructure, of any kind: roads are bad, flights are expensive, electricity is insecure, water is scarce, banking facilities are absent, etc. Besides, several roads are still plagued by a high degree of insecurity. This complicates business. Traders usually hold a lot of cash money and when they travel, they prefer to hide their cash and their commodities (which is easy for gold, at least much easier than for example for cassiterite, coltan or copper). In other words, we may say that the space in which traders operate is highly insecure. Therefore, they prefer doing business 'on the quiet' and with trusted partners only. They seek proximity (through commission agents, through personalized relations, through access to information) in order to reduce uncertainties in these 'remote spaces'.

But trust can also be violated, and there are definitely incentives for cheating. First, a miner may run away and leave his shaft and his debts behind. This may be difficult in a situation where your background and your family are known by the creditor. It is easier if you are for example a migrant in the mining site, if the creditor won't be able to find you and you can go back to your family. Similarly, traders have the possibility to 'walk away'. Commission agents may leave with the money of their *patron*. But in both cases, this will ruin their reputation and undo their chances of working in the mining sector in and around Kamituga. In the next section we will illustrate this with a few cases.

Regulating credit and debt relationships

These credits are not 'formalized', in the sense of officially recognized and legally enforceable. When asked whether they 'write down the agreement', trading agents said they did not. Certainly for small amounts there is no written agreement. These sums are part of the 'creation of the relationship', which is not valued in monetary terms. Yet all traders keep a record of their outstanding credits, and thus establish a considerable level of control as well. This is again a way to reduce uncertainties, and to respond to the distrust mechanism. They also do this to justify their expenses towards their boss, and to keep the accounts, because small amounts may become large debts in the long run:

> There is no writing, because if you find someone with a 1000 USD debt, he did not borrow that amount at once. Today he comes and asks 5 USD, tomorrow he comes back, the work is not going well, and he needs another sum. He is a client. The next day he can come with 5 grammes of gold, but then he might borrow another 10 USD. And thus the amount becomes larger, until you realize you are at 1000 USD. There are no receipts. […] Those small amounts, you just write them in your notebook.[76]

Yet sometimes both parties do sign a written agreement. This may happen in the case of larger investments, or when the trader and the miner do not know each other very well (yet).[77] Another possibility is to make an oral convention in front of some witnesses, like for example a traditional chief. This way you can make your agreement official, but 'leave pen and paper behind'.[78] A written agreement may also be required when problems arise between the two parties: 'When he starts to hide away from us, we ask him to make an agreement'.[79] This already indicates that credit and debt relationships may come under considerable pressure.

A mining project that fails is no exception. It can happen because of internal reasons – no reserves, no output- or because of external factors. Changes at the national (state intervention) or at the global level (price fluctuations), or changes in accessibility or security may seriously affect production. But even when debtors are clearly not able to pay, the relationship will not be easily ended, since both parties need each other if they want to have any hope of having some output in the future. This is the incentive for maintaining the relationship. Even when it takes an extremely long time for a shaft to enter the production stage, the trader will not withdraw his financial support:

> Once you have granted someone the money to buy some petrol, some batteries or other tools, and the shaft is not producing, you cannot quit. In other words, the shaft becomes a shared

> property, since you make the monetary investment, and he invests his labour. So in fact you are now both owners.[80]

On the contrary: 'You cannot get your money back from the diggers: even more, you rather have to do a bigger effort, and increase the investment'.[81] Only then will the shaft start producing again. This engagement thus requires a lot of patience, 'until God will bless us so that he finds and pays us; we are patient'.[82] But traders are certainly not only watching and waiting for their investments to become profitable. They also supervise the works in the mining shafts. They often go on-site in order to verify how the works are proceeding. Some even hire someone to supervise the mining activities.

What if these pressures evolve into a real dispute? A local trader, asked about 'deceivers', told us the following:

> They are many! A first case was a shaft near Kilobozi. This shaft owner had become my "client of honour". At a certain moment, he had a dispute with one of his working mates. This colleague of him now summons him in court. Well, I have supported my client in this trial, because you know here in the DRC you need money to win a case […] So when the case was brought before the mining police, the dispute was really going bad. He started to take even more money from me… up to a debt of 4 tolas, so about 1400 USD [in Kamituga a tola is worth 300 to 350USD (2009) – SG]. But his production has fallen ever since. Today he keeps hiding from me. We don't get along anymore. This was the first case. A second case is K. He owns me money since about three years. I have already given him material support [tools etc.] worth 18 tolas. But with his production he is not able to repay these investments. But we still get along very well because he brings me whatever he has [small quantities].[83]

The last sentence emphasizes the value that is put on the long-term relationship, and the delicate mixture of affective and instrumentalist friendship.

In case of non-repayment, one could think of bringing the debtor to court. Yet this seems to be difficult in the absence of formal contracts. Traders complained that they cannot rely on court or police, because they are easy to corrupt,[84] or they would say that there is no legal basis for the credit.[85] Others say it's even not worth the effort: 'Can I leave this office and waste my time in court for 50 USD? The answer is no!'[86] Instead, creditors may ask for collateral. This is not officially regulated, but it is common practice in Kamituga, as the following quote demonstrates:

> Interviewer: There isn't any way to call them before court?
>
> Agent: No there isn't any way! If they don't find [gold], your money is lost. But when they have something, some goods at home: a radio, a television, stereo, they can say: as I am unable to pay, ok, take this. If they don't have, your money will be lost forever.[87]

In some buying offices in Kamituga, you can find a wide array of electronic equipment, which have been given as collateral. But there are stronger incentives. The strongest sanction is the refusal to grant credit to individuals with a bad reputation.[88] This is an incentive for people to behave in a reliable and honest way, for they could lose the benefits of future exchange if they deceit.[89] This is illustrated by the following quote:

> Interviewer: So you ask no written guarantees? And what if afterwards he goes somewhere else?
>
> Agent: That's his problem then. He will lose, because he will not be able to rely on you anymore.[90]

These quotes livelily illustrate the use of reputation as a sanctioning mechanism, which has already been extensively described in the literature.[91] The most important thing this article can contribute to all this, is to emphasize the importance of all these regulatory mechanisms, and of a long-term perspective, even in a post-conflict context, in a sector that has so often been criminalized and pictured as chaotic, not regulated and impossible to get hold on.

Concluding remarks

In this article we studied (part of) the 'informal' sector of gold production and trade, and (part of) the network. In order to overcome the dualistic notions of networks as social capital, or as predatory and extractive structures, we looked in detail at the functioning of the network, and framed this in its specific local and historical context.[92] The close connection between context and network dynamics is epitomized in the structural characteristics we identified. Looking at the current debates around the Congolese mining sector, formalization stands out as the most topical challenge that may mould the network, but which will also be affected by relations and regulations within the network. If we want to make sense of these on-going processes in the artisanal mining sector, we need to consider the following points.

First, reciprocal exchange does not mean that this exchange takes place in a power vacuum. We have pointed at hierarchies and power relations, but conclude that power in this context is not univocal. Actors at the bottom of the 'commodity chain' are not necessarily powerless. Whereas some actors have incentives to act in an oppressive way, others have incentives to cheat. Yet all these incentives are balanced by the mutual dependency and the long-term relationships that need to be protected. In the long run, it is more beneficial to cooperate than to cheat and disrupt the relationship. Nevertheless, disputes often occur and relationships may be seriously disturbed. Considering the way the gold sector is currently organized in these sites, miners and traders are constrained to continue working like this, and to take enormous risks.

Second, credit and debt relations are omnipresent. For the sake of focus and detail, we confined this paper to relationships between miners and traders. Yet this is just a snapshot, as 'chains of debt' connect virtually all actors in gold mining and trade. Individual miners for example may be tied to shaft owners in a similar way, commission agents to their boss or to other traders, 'patrons' to master traders, and so on. Moreover, credit and debt relations may shift over time, as creditors become debtors and vice versa. Contrary to what their so-called 'informal' character may suggest, credits are well regulated. They exist within a clear framework of cooperation and obligations, and serve both an economic and a social aim. Still there may be considerable pressures on these relations. Hopefully this research has contributed something to understanding this 'poverty trap' of indebtedness, which is until now poorly understood in the literature.[93]

Third, we have drawn the attention to the regulated nature of relations in the 'informal' gold trade, which is often characterized as chaotic, and therefore frightens policy makers. On the other hand we also need to consider the relational nature of regulations. Artisanal gold production and trade depend upon personal relations. These relations and regulations are rarely taken into account when dealing with the gold sector and when designing interventions.

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Notes

[1] Garrett, Mitchell and Lintzer, *Promoting Legal Mineral Trade*, 32. It is also estimated that 40 tonnes, or $1.24 billion of gold is smuggled out of the DRC yearly (UN, *Final Report 2009*, 32).
[2] Garrett and Mitchell, *Trading Conflict for Development*; Mitchell and Garrett, *Beyond Conflict*; Vlassenroot and Perks, "From Discourse to Practice"; and the recent discussion on the mining ban: Geenen, Kamundala and Iragi, "Pari qui Paralysait". See also Hilson, "Small-scale Mining," 3.
[3] Titeca and De Herdt, "Regulation and Cross-border Trade," 578.
[4] Meagher, *Identity Economics,* 12.
[5] Bayart, "Africa in the world"; MacGaffey, *Entrepreneurs and Parasites*; *Real Economy of Zaïre;* "Initiatives from Below".
[6] These concepts were respectively used by MacGaffey, *Real Economy of Zaïre;* "Initiatives from Below"; Roitman, "Politics of Informal Markets"; Reno, "Clandestine Economies"; Callaghy, Kassimir and Latham, *Intervention and transnationalism.*
[7] MacGaffey, *Real Economy of Zaire,* 39 in Titeca en De Herdt, "Regulation and Cross-border Trade," 582.
[8] Hart, "Entreprise Africaine," in: Titeca and De Herdt, "Regulation and Cross-border Trade," 577.
[9] Roitman, "Politics of Informal Markets," 683, 691.
[10] Meagher, *Identity Economics,* 11.
[11] Hart, "Kinship, Contract, and Trust," 191.
[12] Luhmann, "Familiarity, confidence, trust"; Grätz, "Gold trading networks," 146; Seligman, *Problem of Trust.* There is some discussion on how to use the concepts "confidence" and "trust". Luhmann defines trust as a characteristic of interpersonal relations, in which trust is an answer to risk calculation, whereas confidence presumes no alternatives, and thus no risk. Grätz on the other hand used Seligman's definition, making a distinction between bilateral and multilateral relations: "'Confidence' relates to particular persons, 'trust' to a social system, institution, general norms and roles." In this article we use 'trust' in Luhmann's sense as a response to risk calculation, and not as something which is immanent. Traders use the French term *confiance* both for their bilateral relations and to refer to multilateral relations or to 'the gold business' as a system.
[13] Granovetter, "Nature of Economic Relationships"; Greif, *Institutions and the Modern Economy*; MacGaffey and Bazenguissa-Ganga, *Congo-Paris.*
[14] Hansen and Vaa, *Reconsidering Informality*; MacGaffey, *Real Economy of Zaire*; MacGaffey and Bazengouissa-Ganga, *Congo-Paris*; Vlassenroot and Raeymaekers, "Governance without Government".
[15] Doornbos, "State Collapse"; Vlassenroot and Raeymaekers, *Conflict and Social Transformation*; Raeymaekers, *Protection for sale*.
[16] Meagher, *Identity Economics,* 21.
[17] Bayart, "Africa in the World"; Chabal and Daloz, *Africa works*; Collier, "Rebellion as a Quasi-criminal Activity"; Duffield, *Global Governance*; Le Billon, "Natural resources and armed conflicts"; Reno, "Clandestine Economies"; Roitman, *Economic Regulation*.
[18] MacGaffey, *Real Economy of Zaire*.
[19] See both academic literature and policy-oriented reports by international organizations and NGO's: UN (different reports by the Group of Experts on the Illegal Exploitation of Natural Resources in the DRC, especially 2001, 2002 and 2009) Enough, *Congo's Conflict Minerals*; Global Witness, *Same Old Story; Under-mining Peace; Faced with a Gun*; Human Rights Watch, *Curse of Gold*; Jackson, "Making a Killing"; NiZA, *State vs. the People*; Pole Institute and International Alert, *Natural resources exploitation*; Prendergast and Lezhnev, *From Mine to Mobile Phone*; Sullivan and Atama, *Digging In*; Turner, *Congo Wars*; Vlassenroot and Raeymaekers, *Conflict and Social Transformation*.
[20] Bayart, Ellis and Hibou, *Criminalization of the State in Africa,* 114.
[21] Titeca and De Herdt, "Regulation and Cross-border Trade," 578. See also Raeymaekers, "Brokering networks".
[22] MacGaffey, "Initiatives from Below," 246-247.
[23] Garrett and Mitchell, *Trading Conflict for Development*.
[24] Titeca and De Herdt, "Cross-border Trade and Regulation," 582.
[25] Geenen, "Constraints, Opportunities and Hope". In previous work we deal with the organizational aspects of artisanal mining and trade, and we study in detail the actors involved.

[26] For other studies addressing these issues, see Grätz, "Gold Trading Networks" (study on trust among gold traders in Western Africa); Rubbers, "Trust, Norms and Regulations" (study on copper and heterogenite traders in Katanga). Recent studies on artisanal mining have mainly focused on livelihoods, see among others Bryceson and Jonsson, "Gold Digging Careers"; Bush, "Accumulation and Abjection"; Hilson, "Land Use Competition"; "Small-scale Mining"; "Poverty and Livelihood Diversification"; Jonsson and Bryceson, "Rushing for Gold".
[27] Meagher, *Identity Economics,* 22; Hart, "Multiple Trajectories," 341; *Disabling Globalization.* At this point we follow Kate Meagher, who believes that both views on social networks (social networks as social capital and as social liabilities respectively) are reductionist. Meagher argues for a study of particular networks in their particular context. She also refers to Gillian Hart, who argues for a study of local trajectories that defy notions of path dependency.
[28] During the first fieldwork period in 2008 we concentrated on the artisanal exploitation process of gold in Kamituga. In 2009 we closely studied trade relationships in Kamituga and Bukavu. In 2010 we researched cross-border trade relations in Bujumbura, Uvira and Bukavu. In 2011 we visited Kamituga, Luhwinja and Lugushwa and concentrated on issues of artisanal/ industrial exploitation and the impact of the mining ban.
[29] On the colonial policies in Katangese mining camps, see Cuvelier, *Men, Mines and Masculinities,* 72-106.
[30] "Declaration of W. Norbert in name of the Congolese MGL workers", September 1, 1962, unpublished, MGL archives Royal Museum for Central Africa, Belgium.
[31] Bezy, Peemans and Wautelet, *Accumulation et Sous-Développement,* 85-93.
[32] MacGaffey, *Entrepreneurs and Parasites; Real Economy of Zaire.*
[33] Bulambo, *Capitalisme Minier*.
[34] Raeymaekers, *Power of Protection,* 82. Until the mid-nineties most gold flew to Bujumbura, which was the central regional hub for gold exports, thanks to a free-trade regime introduced by president Buyoya. However after a military coup, a civil war and a sanctions regime in Burundi in 1996, the center moved to Kampala. Nowadays both Kampala and Bujumbura are major hubs, the former receiving mostly gold from Orientale and North-Kivu, the latter from South-Kivu.
[35] Dupriez, *Bushi.*
[36] Vlassenroot and Raeymaekers, *Conflict and Social Transformation,* 220.
[37] Vlassenroot and Raeymaekers, *Conflict and Social Transformation*, 221. Some reasons for this were internal disputes, constant attacks of more remote sites by FDLR (Forces Démocratiques pour la Libération du Rwanda) and Mayi-Mayi groups, and the resistance of small-scale miners, traders and export offices at all levels. Vlassenroot and Raeymaekers, *Conflict and Social Transformation*, 221.
[38] Author's own survey in Kamituga, July and August 2009.
[39] See also Geenen, "Constraints, Opportunities and Hope".
[40] Vlassenroot and Raeymaekers, *Conflict and Social Transformation*.
[41] Geenen, "Constraints, Opportunities and Hope".
[42] Traders use fixed formulas to calculate the price they pay. Source: author's fieldwork.
[43] Panella, "Knowlegde and Hierarchy". In this article Christiana Panella describes hierarchical relations in the antique market in Mali, in which market suppliers and intermediaries have no information at all about prices paid higher up in the chain, and in which, as typical in an art market, prices are not fixed either. This situation thus stands in contrast to the one we describe here.
[44] Englebert, *Unity, Sovereignty and Sorrow*.
[45] Roitman, "Politics of Informal Markets," 681. Roitman develops the argument that although the 'informal sector' is usually defined in opposition to and independent of the state, "the extent to which these activities actually depend on infrastructure and channels of distribution that are clearly controlled by the state is significant".
[46] Granovetter, "Economic Action and Social Structure"; "Nature of Economic Relationships"; Platteau, *Institutions, Social Norms and Economic Development*; Greif, *Institutions and the Modern Economy*.
[47] Interview with commission agent in Kamituga, August 19, 2009. See also several other interviews with traders in July-August 2009.
[48] Hart, "Kinship, Contract, and Trust," 179.
[49] This and the following quotation are from Geertz, "Bazaar Economy," 30.
[50] Interviews with commission agents in Kamituga, 2008 and 2009.
[51] For example Delta Force, Shamamba, Zakashimba, etc.
[52] See also Grätz, "Moralities, Risk and Rules," 14-15.
[53] Hart, "Kinship, Contract, and Trust," 179.

[54] Granovetter, "Nature of Economic Relationships," 19.
[55] Interview with the owner of a buying office in Kamituga, August 21, 2009.
[56] Interview with a commission agent in Kamituga, August 11, 2009.
[57] Granovetter, "Nature of Economic Relationships," 19.
[58] Interview with a commission agent in Kamituga, August 12, 2009.
[59] Interview with a commission agent in Kamituga, August 19, 2009.
[60] Kranton, "Reciprocal Exchange," 830.
[61] See also Hart, "Kinship, Contract, and Trust," 179; Lyon and Porter, "Market Institutions, Trust and Norms," 912.
[62] Interview with a digger in Kamituga, April 4, 2008.
[63] Interview with a commission agent in Kamituga, August 13, 2009.
[64] Grätz, "Moralities, Risk and Rules," 16.
[65] Interview with a miner in Kalingi, a neighbourhood in Kamituga, August 7, 2009.
[66] Hart, "Kinship, Contract, and Trust," 191.
[67] Interview with a commission agent in Kamituga, July 23, 2009.
[68] Interview with a commission agent in Kamituga, August 7, 2009.
[69] Definition based on Coleman, *Foundations of Social Theory,* 91; Luhmann, "Familiarity, Confidence, Trust," 95; Molm, Takashi and Peterson, "Risk and Trust in Social Exchange," 1422; Tilly, "Trust and Rule," 4-5.
[70] A large majority of the traders interviewed said that their business is 'a business of trust'. Kamituga and Bukavu, July-August 2009.
[71] Interview with a commission agent of a small-scale gold mining company in Kamituga, August 20, 2009.
[72] Interview with a Bukavu-based trader, July 28, 2009.
[73] Granovetter, "Nature of Economic Relationship," 27.
[74] Interview with a trader in Bukavu, July 28, 2009.
[75] MacGaffey, "Initiatives from Below," 247.
[76] Interview with a commission agent in Kamituga, August 14, 2009.
[77] Interviews with commission agents in Kamituga August 12 and 20, 2009.
[78] Interview with a commission agent in Kamituga, August 17, 2009.
[79] Interview with the owner of a buying office in Kamituga, August 19, 2009.
[80] Interview with a commission agent in Kamituga, August 7, 2009.
[81] Interview with a commission agent in Kamituga, August 10, 2009.
[82] Interview with the owner of a buying office in Kamituga, August 12, 2009.
[83] MacGaffey, "Initiatives from Below," 247.
[84] Interview with a commission agent in Kamituga, August 13, 2009.
[85] Interview with the owner of a buying office in Kamituga, August 12, 2009.
[86] Interview with a commission agent in Kamituga, August 12, 2009.
[87] Interview with a commission agent in Kamituga, August 13, 2009.
[88] See also Clay, "Trade, Institutions, and Credit," 508.
[89] See also Kranton, "Reciprocal Exchange," 831.
[90] Interview with a commission agent based in Bukavu, July 27, 2009.
[91] See for example Platteau, *Institutions, Social Norms, and Economic Development,* 241; Greif, *Institutions and the Modern Economy,* 58.
[92] Meagher, *Identity Economics,* 22; Hart, *Disabling Globalization*.
[93] Hilson, "Small-scale mining," 3.