

The Democratic Republic of the Congo (DRC)'s response to artisanal cobalt mining: The Entreprise Générale du Cobalt (EGC)

Abstract

The Democratic Republic of the Congo (DRC) supplies the vast majority of the world's cobalt used for the production of battery critical to the green transition. An important part of this production originates in the pits of artisanal miners operating in the provinces of Lualaba and Haut Katanga. In 2018 the DRC government established the *Entreprise Générale du Cobalt* (EGC) to address the issues faced by these miners, implement taxation on their production, and respond to reputational risks feared by the industry. The newly established state-owned company, officially operating since 2021, will buy and sell the production of artisanal miners and act as a monopoly on all cobalt artisanal materials, effectively controlling 15 to 30 percent of the country's output. Inscribed in historical continuities, the EGC's structure is nevertheless profoundly different from previous attempts at controlling artisanal production. Its close partnership with a Swiss trader, as well as its internal structures geared toward responsible sourcing, make the company an anomaly in the landscape of cobalt mining. Nevertheless, expectations are high around the new entity. This article addresses these expectations all along the supply chain and provides an overview of the EGC's challenges in the years to come. Even more, it identifies avenues for potential studies to explore as the company will become a critical player on the world's stage as governments and companies transition to greener strategies.

Keywords: cobalt; responsible sourcing; CSR; supply chains; battery; DRC.

1- Introduction

The Democratic Republic of the Congo (DRC) is a heavy weight in the global mining industry. Gold, diamonds, tantalum, lithium, copper are all extracted in the country and feed global supply chains. However, one mineral is at the center of a twenty-first century rush in which global corporations, from Volkswagen Group to Samsung SDI Co. or Zhejiang Huayou Cobalt Co., flooded the country to secure critical supplies. Cobalt is a core element to lithium-ion (Li-ion) batteries and will help power the move away from fossil fuels to develop electric vehicles (EV). Today the DRC is estimated to produce 71 percent of the world's supply of cobalt (Darton Commodities Limited 2021), while holding another 48 percent of the globe's reserves (Vetter 2018, 3). The production is dominated by multinational mining companies with large-scale mining (LSM) open pit and underground operations (Cobalt Institute 2021, 10). However, around 15 to 30 percent of the supply is extracted by artisanal miners in often unformalized operations (Baumann-Pauly 2020, 3), raising important and diverse risks (Deberdt and Le Billon 2021). In 2018, the DRC government, recognizing cobalt's strategic importance, the need to improve local livelihoods, and the increasing ethical concerns around artisanal and small-scale mining (ASM) sourcing, established the *Entreprise Générale du Cobalt S.A.* (hereafter the EGC). This article discusses the dynamics behind the establishment of this new state-owned company and addresses the challenges that it will face at the national and international levels.

ASM is a complex economic activity to define. As Hilson argues, a flourishing bibliography on the topic attempts to provide a sensitive and global definition with little result (2002). However, for the purpose of this article, small-scale mining will be distinguished as "mining activity involving the application of low, intermediate technology and universal prospecting methods, and requiring low initial investments and high employment per-unit output" (Hilson 2002, 4). More specific to the DRC, the Mining Code

defines artisanal mining as “using non-industrial tools, methods and processes” (DRC Government 2018). As a poverty-driven activity (IGF 2017; Hirons 2011), ASM also provides alternative livelihoods, and often higher income to the individuals involved in it¹, making it attractive to hundreds of thousands of people in the Haut Katanga and Lualaba provinces alone (BGR 2021; Deberdt 2021).

Since 2016 and the publication by Amnesty International and AFREWATCH of an *exposé* on child labor in cobalt artisanal mines, the industry has significantly increased investments in responsible sourcing strategies. From the establishment of monitoring programs (RCS Global Group 2020) to responsible sourcing pilots (Johansson de Silva, Strauss and Morisho, 2019), development-oriented programs (BASF 2020) and blockchain-enabled traceability systems (RCS Global Group 2021; Reuters 2021), the upstream, midstream and downstream sectors of the cobalt supply chain innovated significantly to mitigate reputational risk and secure their ‘clean’ supply. Nevertheless, the response of the Congolese government on these challenges has, until the establishment of the EGC, been centered around the 2018 Mining Code and the different decree governing the extraction, treatment, and export of *minerais stratégiques* (critical minerals)². Hence, the creation of the EGC and its implementation in the coming months and years will profoundly change the landscape of artisanal cobalt mining and has the potential to shape the conditions of extraction and trade of a significant part of the global supply of this critical mineral.

This research is informed by a literature review of the current efforts to clean cobalt supply chains of reputational risks. It also addresses the historical roots of the establishment

¹ BGR’s 2019 study found that 40% of the miners surveyed had an income of less than USD 4.2 a day and 28% between USD 4.2 to USD 10 a day, meaning that most miners earn less than USD 10 a day (2019, 36). In the 2021 updated study, the numbers were 19.6% of the miners earning less than USD 4.2 daily, 33.3% earning between USD 4.2 and USD 10 daily, 29.7% earning between USD 10 and USD 30 daily, and the remaining 17.4% earning more than USD 30 a day (BGR 2021, 42).

² Decree 18/042 of November 24th, 2018 established that cobalt, germanium and columbite-tantalite as critical minerals. A year later, Decree 19/15 of November 5th, 2019 established more formalization for artisanal mining operations extracting critical minerals.

of the EGC through a document analysis of the *Exploitants Miniers Artisanaux du Katanga* association (EMAK, Association of Artisanal Miners of Katanga) and the *Nouvelle Compagnie* (NOUCO, New Company). Finally, the study is based on in-depth interviews with stakeholders at different levels of the cobalt supply chain, as well as civil society representatives in the DRC, international organizations, service providers, experts, and government representatives. A total of 22 interviews were conducted between January and June 2021, just as the Gécamines and the government in Kinshasa established the EGC. As such, this research translated the expectations, concerns, and hopes crystallized by the new entity, and explores the opportunities for the DRC government to answer to those calls. Importantly, it should be noted that despite the official narrative describing the EGC as currently in operations, I did not find indications that the company has yet started the buying and selling of cobalt ore. Hence, this article provides a tentative analysis, and its conclusions are subject to the actual implementation of the EGC's strategy.

The first part of this article briefly explores the landscape of mining in the DRC's southern provinces and the risks in the cobalt artisanal sector. Following this, I present the legal recognition of artisanal cobalt mining in the country and the efforts to establish a monopoly on cobalt and copper (2C) mining in the previous decades. The idea first emerged under former president, Laurent Désiré Kabila, in the afterwards of the legal recognition of the artisanal cobalt and copper industry. In the wake of the two Congo wars between 1996 - 1997 and 1998 - 2003 (Stearns 2011; Turner 2010; Reyntjens 2010), the country established EMAK and NOUCO, without much success. Adopting a comparative approach, I address the differences between these initiatives and the EGC. In the third part I examine the internal and external structures of EGC, including its close relationship with its only buyer to date, Trafigura PTE (hereafter Trafigura). In the last part of the study, I describe the hopes, concerns, and expectations of supply chain actors toward the EGC. As previously stated, this

study has been conducted during the establishment of the EGC and as such does not intent to provide an analysis of the positive and/or negative impacts of the company's implementation. Finally, this article does not explore the on-the-ground implementation of the EGC, meaning the challenges the company will face in formalizing artisanal site, and establishing itself as the core actor in the buying and selling of cobalt artisanal materials from the DRC. This analysis will be a much-needed endeavor in the coming months and years to inform the future of the state-owned company and the Congolese cobalt industry.

2- Landscape of mining in the DRC's Copperbelt

The mining industry is at the core of social, economic, and political dynamics in the DRC's Copperbelt. Extractive operations take place in the region since pre-colonial times (Nikis and Livingston Smith 2017) and were furthered under the Belgian rule (Eichstaedt 2011). The cold war and the race for atomic supremacy solidified the role of the country as a critical source of raw material, in particular through the supply of uranium (Williams 2018). The post-colonial era largely maintained similar extractivist dynamics, with the nationalization of the *Union Minière du Haut-Katanga* (UMHK, Mining Union of Haut-Katanga) under the aegis of the newly created *Générale Congolaise des Minerais* (Gecomin, General Congolese Company of Minerals), now known as *Générale des Carrières et des Mines* (Gécamines, General Congolese Company of Quarries and Mines) (Rubbers 2013; Young and Turner 2013).

Today, the DRC is the fourth largest producer of copper (Government of Canada 2019) and supplies 71 percent of the world's cobalt (Darton Commodities Limited 2021). The attractiveness of the country is exemplified by the growing number of world class projects, including the Kamo a Kakula mine by Vancouver-based Ivanhoe Mines (Amos, Nkuna and Matsetela 2018), ranked the largest copper project in development (Mining.com 2021).

Nevertheless, beyond the development of industrial large-scale mines with their own specific risks (Pugliese 2020; Flummerfelt and Lloyd-Davies 2021; Nkulu et al. 2018; Peša 2020), the thriving artisanal sector remains a significant source of direct and indirect revenue for millions of people. The development of an artisanal sector in the last decades of the 20th century answered to an increasing pauperization of the country's population and the fall of the Gécamines in the 1990s.

In recent years, cobalt has become a mineral attracting significant interest. The United States, Canada, and the European Union included what a BBC article described as the 'blue gold' (Robertson 2019) in their critical or strategic minerals' list. Cobalt is used for the production of Li-ion batteries powering the transition from fossil fuels to electric vehicles (EV). The booming EV market has led to multi-billion dollars investments by battery manufacturers and automotive companies to remain competitive in a fast-changing market. Supporting this analysis, Deloitte forecasted in 2020 that the sector would see an annual growth rate of 29 percent, while 31 million EV will be sold annually by 2030 (2020). Hence the race to secure cobalt resources has replaced the DRC at the center of global supply linkages, and shined light on artisanal mining production.

The artisanal sector is core to the discussion of cobalt mining. Estimates suggest that 20 to 30 percent of the country's output, could originate in artisanal mines all over the Lualaba, Haut-Katanga, Haut Lomami and to a lesser extent, Tanganyika, provinces (Williams et al. 2021, 327). While complex to define and prone to criticism, artisanal mining is generally understood as the extraction of ore with little to no mechanization (Hilson 2002). In the DRC, these operations are legally recognized (see part 4), but often occur without proper land ownership titling and in contravention of the requirements of the Mining Code. This situation led to increasing concerns over sourcing and reputational risks for companies all along the supply chains, most notably child labor (Sovacool 2021). As Calvão, McDonald

and Bolay convincingly argue, the current dynamics at stake in responsible cobalt production shifts risks toward artisanal miners while outsourcing labor costs. Additionally, the support that ““corporate outsourcing of responsibility” extends miners’ vulnerability and insecurity” (2021, 1).

The focus on reputational risks as been a catalyst for corporate action in the region. Sovacool supports that cobalt could play a significant role in providing sustainable livelihoods and regional stability but is currently embroiled in physical and environmental violence (2019). The child labor narrative used by non-profits, international organizations, and companies spurred the development of responsible sourcing programs to tackle this challenge. Since the first reports over the involvement of children in the artisanal mines in 2015, additional risks have been targeted, including occupational health and safety (OHS), corruption, and to a lesser extent environmental pollution. A flurry of industry reports (Deberdt 2021; Resource Matters 2018; Carter and Sturmes 2020; BGR 2021) have been published to orient the actions of industry actors, often led by corporate interests, including the securitization of cobalt supplies. From mine site monitoring (RCS Global Group 2019) to community development programs (BASF 2020) and formalization pilot projects (Johansson de Silva, Strauss and Morisho 2019) industrial actors have been increasingly involved in defining responsible cobalt sourcing, often at the expense of state-led action. Hence, in this context, the establishment of the EGC to both implement responsible sourcing requirements and secure tax revenues from artisanal production is a significant change in the landscape of cobalt mining in the DRC. Economically, the ASM sector is also a highly lucrative proposition and particularly attractive to foreign actors when valuing the ASM exports in cobalt alone. Additionally, the involvement of foreign buyers, in this case Trafigura, is the result of low production costs that are a fraction of an LSM mine for mostly high-grade oxide ore (see World Bank 2008; Geenen 2014, 98).

Finally, analyzing the DRC's copper and cobalt industry would not be complete without a brief assessment of the Gécamines. As previously mentioned, the state-owned company is the heir of the Belgium-established UMHK and defined the country's mining industry for decades. Beyond the mining industry, the paternalistic company shaped the life of Katangese people (Rubbers 2017; Rubbers 2015), developing activities in water and electricity provision (Makal and Kafukis-Kapend 2015) as well as health (Ngoie Mwana Nsapu, Ngomb Kazad and Mwinkeu Kasongo 2018). The conflict brewing in the early 90s and exploding in 1996, as well as unprecedented levels of corruption, led to the fall of the company, and by 2002 precipitated the sale of its assets under the auspice of the World Bank. The selling out of the company's assets is even characterized by Rubbers as "an informal privatization process" (2006, 1). The international organization's support for the development of a new mining code in the early 2000s was conditioned to the liquidation of the company's debt (Rubbers 2013, 49-53). This situation created to a concessionary model under which Gécamines retains ownership of the land which is rented to private actors. Consequently, as a subsidiary of Gécamines, the EGC's margin of action is deeply linked to this concessionary model and provides the company with leverage to implement responsible sourcing requirements on land leased by the public miner. Nevertheless, additional research will need to be conducted to analyze these processes when the company becomes fully operational.

3- Establishing a state monopoly on artisanal cobalt mining

The efforts to push for the recognition of artisanal mining in the DRC have been under way for decades. First, its legal recognition through decrees and mining codes conferred a legitimacy to the industry, in particular in diamond, gold and to some extent copper extraction. The legal recognition of the sector opened the discussion around its formalization, and as the 90s were under way, the increased economic attractiveness of artisanal

mining brought significant challenges (Perks 2011, 1120; IN-SP-004-05062021). Geenen argues that the formalization canon assumes that “property rights as exclusive, transferrable and legal rights to use, exchange and change resources” (2012, 323). In her analysis of the eastern Congolese provinces, she brings de Soto’s influential work that argues that the informal economy and the lack of formal titles, does not allow for the transformation of people’s assets into collateral and credit, hence their assets are tied up in ‘dead capital’ (Ibid, 323; see also Siegel and Viega 2009). Geenen goes on to demonstrate the flaws of the formalization discourse in the DRC and beyond, pointing out the role of poverty as a driver of the ASM sector, the inability of the proposed system to recognize existing customary rights as equals to property rights and the different systems of regulation already in place but not fitting the Western discourse of formal economic activity. While Geenen explores these issues in the gold sector, the cobalt artisanal market faces sensibly similar concerns. In this light, and exploring the cobalt artisanal sector, Banza Lubaba Nkulu et al. argue for the need to depart from the legalist viewpoint to embrace “a bottom-up approach, on the workforce, its livelihood, working conditions, and the practical arrangements that are made among the workers, and between the workers and other stakeholders in the artisanal mining sector” (2018, 501).

This first part departs from the discussion over the general formalization efforts of artisanal cobalt mining in the DRC, but uncovers a specific historical trend to monopolize, or at least amalgamate parts of the ASM production in government-controlled entities. To this end, I first provide a short historical background on the legal recognition of artisanal mining (not exclusively cobalt) before dwelling into two case studies, the EMAK and NOUCO.

4- Artisanal mining and its legal recognition in the DRC

The Congolese artisanal sector traces its roots to the pre-colonial times when the first deposits of gold, copper and alluvial diamonds were discovered (Werthmann and Grätz 2012). The former Katanga province was at the heart of precolonial mining which benefited ‘sacred chiefs’ and ‘chiefs of the earth’ as a mechanism for wealth accumulation and redistribution. In Sanga territory (current Haut Katanga and Lualaba provinces), the Mpande (paramount chief and sacred king) controlled access to the mining sites and in turn received payments from miners (Geenen and Cuvelier 2019, 392). Description of the trading relationships between Katanga copper miners trading centers in Tanzania (Couttenier 2018) or Botswana (Stephens et al. 2020) also show the reach of the DRC’s Copperbelt historical mining. Hence artisanal mining has been a constitutive element of the Katangese society for centuries and drove relationships with outsiders.

In the early 1970s, the government of the newly independent Republic of the Congo officially started discussing the topic of artisanal mining (Geenen and Cuvelier 2019). However, miners had to wait until 1982 and the first decree formalizing the existence of artisanal mining in the country by then-President Mobutu Sese Seko (IN-SP-004-05062021; Government of Zaire 1982). Chapter IV of the Ordinance-Law of 1982 introduced the concept of artisanal mining in the country’s legal code, only for diamonds, gold, and other precious substances (Verbrugge, Cuvelier and Van Bockstael 2015, 54). Hence, cobalt and copper appear beyond the scope of this first legal text. The law also significantly profited industrial mining as artisanal mining operations could only be established if the technical and economic factors do not allow for the establishment of an industrial operation (article 30).

In the final days of the Second Congo War, President Laurent-Désiré Kabila, with support from the Bretton Woods institutions, institutionalized the artisanal sector further with the Law n°007/2002 serving Mining Code. The law introduced new exclusive artisanal mining areas, the *Zone d’Exploitation Artisanales* (ZEAs, Artisanal Mining Zones), with

access granted through a *carte d'exploitant artisanal* (artisanal miner card) (Government of DRC 2002). This legal system prevailed in the DRC until 2018 when the Mining Code was updated to reflect the new realities of the industry in one of the world's leading mining jurisdictions. This new Code maintained the ZEA system but included revisions to the artisanal mining system, in particular regarding its interaction with the LSM industry. Important for this research, article 30 defines the relationship between LSM and artisanal operators on industrial concessions, and the need for the concession holder to cede the parts of the land where artisanal operations take place (Government of DRC 2018). This requirement raises significant questions in the cases of responsible cobalt sourcing programs, such as the now defunct Mutoshi pilot project (IN-CS-003-05182021; IN-CS-001-02222021; IN-IO-003-05032021; Kabemba and Mukuli 2020). Beyond ZEAs, article 97 of the 2018 Code also allows for a *Permis d'Exploitation de Petite Mine* (PEPM) that can be established in areas where industrial mining operation are not economically viable. This system offers an alternative between ZEAs and industrial *Permis d'Exploitation* (PE).

As I address the case of the EGC, the company was first legally established by ministerial decrees 19/15 and 19/16. Decree 19/15 of November 5, 2019, explores the measures the government now takes in regard to artisanal mining of strategic resources, including cobalt (decree 18/042 of November 24, 2018 defined cobalt as a strategic mineral). Specifically, articles 3 and 4 of the decree established a state-owned company, the EGC, as buyer of the artisanal cobalt production before its transformation for exportation³. Decree 19/16 of November 5, 2019, created the *Autorité de Régulation et du Contrôle des Marchés des Substances Minérales Stratégiques* (ARECOMS) in charge of regulating and

³ Under the DRC Mining Code, the exportation of raw materials is forbidden. The ore must be transformed first in crude refiners in the country before being exported.

implementing the buying of artisanal materials by the new state-owned entity.

5- EMAK and NOUCO, precursors of the EGC

While the EGC's structure presents some novelties, the new company can be compared to previous experiences in the 2C sector, in particular those of EMAK and NOUCO (IN-CS-003-05182021; CASMIA 2021). In this part I do not argue that the EGC faces or will engage in similar practices than these two entities. However, it is clear that the lessons learned with the establishment of both EMAK and NOUCO should inform the future of the EGC. This is particularly the case regarding the accusations of corruption, extortion and lack of transparency in their functioning and ownership structures. While some commentators do not differentiate between the different roles of these entities⁴, it is critical to do so to grasp the subtleties of past structures and inform future actions to formalize ASM production of 2C in the DRC's Copperbelt.

EMAK, established in 1999, was responsible for “stocking, conveying, invoicing and selling ores of its members” (Tsurukawa, Prakash and Manhart 2011, 26). Members of EMAK included all identified and registered artisanal miners, and the organization also managed operations on mines where no concessions had been allocated (Global Witness 2006, 22). Each miner and *négotiant* (buyer) paid membership fees to the organization (2,500 francs/year for a miner and 15,000 francs/year for a negotiant) (ibid, 22). EMAK was set up to assist and represent artisanal miners, and first presented itself as a trade union before being officially defined as a cooperative in 2005. It also included a security component, the *Police des carrières* (Policar, Mining Police), which gathered significant criticisms from local and

⁴ For example, Garrett argues that NOUCO and its successor, the *Congolaise des mines et de développement* (COMIDE) are now known as EMAK (2016, 380). While these entities fulfilled similar roles to some extent, they are profoundly different in terms of their internal goals, their ownership structures, and the role they played in the formalization of ASM in the DRC.

international watchdogs (Global Witness 2006). Theoretically independent from the Congolese government, the company acted in many ways as the only intermediary between traders and the provincial and national government. EMAK quickly controlled a “monopoly on the “organisation” of artisanal miners and négociants in Katanga” (Global Witness 2006, 22). While membership in EMAK was not compulsory, the organization’s ties to corruption and extortion have been extensively described and played a significant role in the control of artisanal mining production in Katanga. Finally, links with the state-owned miners, Gécamines, are also clear. In 2009, De Koning found that as Gécamines allowed EMAK to use some of its concessions for the cooperative’s artisanal business in partnership with a corporate actor equipping the site, “EMAK ensure[d] that Gécamines receive[d] 20 per cent of the local production, while the partner company [took] another percentage depending on the size of its investment” (2009, 12). While EMAK is still operating as a cooperative, its scope shrunk since then and its influence almost vanished⁵. Its competitor, *Coopérative minière Madini Kwa Kilimo* (CMKK, Mining Cooperative Madini Kwa Kilimo, meaning “after stones, agriculture” in Kiswahili), established in 2004 was structured slightly differently, with one-off low membership dues instead of annual payments (Global Witness 2006, 24)

NOUCO on the other hand, was created in 2000 by the then Katanga governor, Augustin Katumba Mwanke, a close ally of then President Laurent Désiré Kabila (RAID 2009). As Tsurukawa, Prakash and Manhart describe it, NOUCO was established as a “department of GECAMINES [that] was meant to buy at a fair price, refine and market the raw ores dug by the so called *creuseurs* [diggers], in cooperation with EMAK, which [was] now recognised as an official supplier of the state-owned industry” (2011, 16). Under the

⁵ By 2010, EMAK accumulated significant debt to its members, leading to an erosion of its membership and the end of the cooperation with Gecamines to focus on private mining companies (Makori 2019, 163). EMAK-C is operating for example on the Karajipopo artisanal mine site.

leadership of Flore Musendu Flungu NOUCO supposed to streamline the access of ASM material to the state-owned mine but “ended in a complete fiasco” (Cuvelier 2009, 18). The company was dissolved in 2003 after accumulating a one million USD debt to EMAK, also questioning the relationship between these two entities. After its dissolution, the *Congolaise des Mines et de Développement* (COMIDE, Congolese of Mines and Development) was formed to address similar issues without much more success (ibid).

EMAK (and to some extent CMKK) and NOUCO (and to some extent its successor COMIDE) provide compelling examples against which to assess the transformative potential of the EGC. While the comparison raised significant criticism by parties involved⁶, I argue that only by analyzing the failure and excesses of these initiatives will the Congolese government and its private corporate partners be able to successfully build a monopoly over artisanal cobalt mining purchasing in the country. However, before exploring more in-depth the challenges that the company will face in the mitigation of some significant risks in the artisanal cobalt sector, it is important to address the internal and external structure of the EGC.

6- The EGC’s internal and external structure: evolution to date

The EGC was formally established at the end of 2019 with a full launch in early 2021. The company is a new player in a very competitive sphere where interests of global companies collide to secure the much-needed supply of cobalt. Through my conversation and exchanges with stakeholders, it is clear that the industry is currently in a significant state of anxiety, with vested commercial interests often defining corporate policies toward responsible sourcing, a concern shared by the EGC. In this part, I describe the current status of the EGC’s implementation, the progress made to date to adopt responsible sourcing

⁶ Direct discussions between the author and industry members, June 2021.

practices, and its commercial agreements with external actors. Through this information I hope to highlight the similarity with EMAK and NOUCO in terms of objectives, but the profound differences in the avenues taken to address the challenges of artisanal cobalt sourcing. Similarly, the context in which these entities are established differs significantly. As I described in the introduction of this article, the EGC is in large part the response of the Congolese government to cobalt's newly gained strategic minerals status, at the heart of the 'green transition' (IN-UC-002-03022021). It also answers the broader industry's concerns around reputational risks and the 'contamination' of their supply chain with minerals extracted with little to no transparency (IN-DC-001-04082021; IN-SP-002-04142021; IN-IO-001-02242021). EMAK and NOUCO on the other side, answered an internal effort to formalization, which later translated in elite capture.

The EGC is owned at 95 percent by Gécamines with the remaining 5 percent held directly by the DRC government (IN-UC-002-03022021). Hence, the company is effectively a state-owned entity under the management of a nine-member board of directors. This board includes Albert Yuma, president of Gécamines, solidifying the links between the two entities. Nevertheless, this nomination raised concerns in the industry regarding Mr. Yuma's complex history⁷ (IN-SP-002-04142021; IN-SP-003-04222021; IN-IO-004-05122021), and it can only but be noticed the absence of gender diversity at the decisional level (EGC n.d). The EGC describes itself as "exercis[ing] a monopoly in the country [DRC] on the sourcing of cobalt from artisanal mining operations, whereby processing prior to export is required before it can be traded. Furthermore, it should also ensure that this production meets high standards of social and environmental responsibility and traceability" (EGC n.d). This mission appears to be closely related to the previous initiatives, in particular NOUCO. NOUCO's structure as a buyer of artisanal materials from cooperatives and seller of the production to exportation,

⁷ For more information see Tshiamala 2020.

makes it a particularly compelling comparison. This is also supported by CASMIA's 2021 press release arguing that the Congolese government should "appeal to the past experience with the corporation NOUCO to create a state-owned company in charge of buying and selling minerals from artisanal origins"⁸.

The EGC will be established as an additional layer in the cobalt supply chain, located between the cooperatives and the foreign buyer. As such, the company relies on existing cooperatives structuring artisanal cobalt miners. While investigating the limitations of the current cooperatives is beyond the scope of this article, it should be noted that many commentators raise important concerns regarding the level of corruption at the cooperatives' level. The majority of these are owned directly or indirectly by powerful businessmen and businesswomen close to former president Kabila (IN-CS-002-03182021). Nevertheless, as currently implemented, the EGC will become a middleman to buy the cooperatives' production and sell it to crude refiners. Beyond this role, the EGC, through the implementation of its standard by monitoring and auditing partners, will define the responsible sourcing practices applied at Congolese cobalt artisanal sites. Nevertheless, at the time of writing, it is not clear what will be the relationship between the EGC and existing monitoring programs such as Better Mining for example.

Critically, the EGC innovates by introducing a price stabilization mechanism to protect artisanal miners from the fluctuation of cobalt prices on global markets. The entity established a price floor of USD 30,000 a tonne, promising miners a stable income. The system will be financed through the creation of a fund created by the revenues from cobalt sales. A standard three percent of the sales would be kept in the fund when cobalt prices are below USD 50,000 a tonne, a number rising to five percent when prices exceed this threshold (Reid 2021). This is an important change for an industry marked by important fluctuations

⁸ Translation by the author.

and builds on lessons from the Mutoshi pilot project and the negative impacts of the price drop on global markets in 2019 (Johansson de Silva, Strauss and Morisho 2019, 20).

In October 2020, the EGC entered into an agreement with Swiss commodity trader Trafigura “to fund the creation of strictly controlled artisanal mining zones, the installation of ore purchasing stations, and financing all costs related to buying, transforming, and delivering of cobalt hydroxide⁹ to end buyers” (EGC 2021a). It should be noted that the current business model adopted by buyers of artisanally-produced materials already includes purchasing stations on the sites. It is unclear yet how the EGC’s model will differ from these existing structures.

Trafigura had previous experience managing the Mutoshi pilot project, a formalization project with approximately 5,000 miners in the outskirts of Lualaba Province’s capital, Kolwezi (Johansson de Silva, Strauss and Morisho 2019). For this pilot project, the company partnered with DRC-based miner Chemaf SARL¹⁰ as well as US non-profit Pact, UK-based consulting organization, Kumi Consulting, and the *Coopérative Minière et Artisanale de Kolwezi* (COMIAKOL, Mining and artisanal cooperative of Kolwezi). Mutoshi was implemented as a capacity building and commercial venture with the objective to reduce reputational risk for the buyer, enhance cooperation between a group of actors, and prove the potential for collaboration between ASM and LSM. In particular, “technical support and on-the-job training on occupational health and safety, roles and responsibilities, specialized cooperative training, security and human rights, ASM labor transitioning and resilience, as well as data collection and monitoring of the project” (Johansson de Silva, Strauss and Morisho 2019, 12) was carried out by Pact. Beyond these direct benefits, a health clinic was

⁹ Cobalt ore is first transformed in cobalt hydroxide in the DRC at the crude refiner level. The product can then legally be exported.

¹⁰ Chemaf SARL is itself a subsidiary of conglomerate Shalina Group, headquartered in the United Arab Emirates (UAE), with pharmaceutical manufacturing and distribution as its other activities.

established (ibid., 15) and a system of price control was implemented (IN-MC-001-02082021; IN-SP-001-02172021). Suspended in March 2020 in part because of the COVID-19 pandemic (Trafigura 2020a), the project ended in December 2020 (Trafigura 2020b) due to a combination of factors, including the impacts of the pandemic, the redirection of priorities after the establishment of the new EGC, and tensions between partners (IN-MC-001-02082021; IN-NP-001-02222021). This experience would become the cornerstone of the cooperation between the EGC and Trafigura, which would also entail the partnerships with Kumi Consulting as responsible sourcing assessor and Pact as project implementer. Additionally, Sceplum, a London-based company identified in a Global Witness report about corruption in the Republic of Congo's oil sector (2019) was recently added to the team. Its role is yet not clear, raising again concerns over the structure of the project. Finally, off-take of the production by the Swiss trader will allow transformed cobalt materials to reach international markets.

The EGC's agreement with Trafigura¹¹ does not preclude similar agreements with other companies intending to source cobalt ASM from the DRC (IN-UC-002-03022021; IN-MC-002-02082021; IN-SP-001-02172021). However, I argue that the links between Trafigura and the state-owned company should be explored more to assess the opportunities that this collaboration could unlock and the critiques of such close cooperation. Unfortunately, the contract between the two companies has not yet been published, a lack of transparency criticized by non-profits (IN-CS-001-02222021; IN-CS-003-05182021).¹² The ties between the companies are also apparent in the internal structure of the EGC. Trafigura

¹¹ The author was able to access the prepayment contract between the two companies. However, the cobalt sale contract is not available publicly.

¹² Additionally, according to sources requiring anonymity, the right of first refusal, meaning the production or volume ceiling under which Trafigura has the right of first refusal (i.e. they're offered the material first, and others can purchase it only if Trafigura doesn't want to buy it) is so high that it's inconceivable it will be surpassed for several years. Trafigura's financing agreement with EGC is a five-year deal covering 45,000 tonnes of cobalt. According to the agreement, EGC has the option to market up to 50 percent of the cobalt to other buyers than Trafigura. In the meantime, EGC's proposed sourcing plan is to cover 7,000 tonnes in 2021, 15,000 tonnes in 2022, and up to 20,000 tonnes in 2023 (Reid 2021).

and Pact sit at the Congolese company's Technical Committee alongside senior staff of the EGC, a role critical to the definition of the company's internal systems as we explore in the next paragraph. Concomitantly, in July 2021, a socio-economic impact report on the ASM Kasulo site, a potential sourcing site for the EGC, commissioned by the EGC's Technical Committee, was published on Trafigura and Pact's websites but not the EGC's (Morisho and Lenfant 2021).

In March 2021, the EGC released its Responsible Sourcing Standard, aligned with DRC law and the OECD Due Diligence Guidance, the international accepted minerals due diligence framework. During its creation, the standard was benchmarked against external standards, such as the Certified Trading Chains (CTC), the Craft Code, Amnesty International's Principles and the Responsible Minerals Initiative's Risk Readiness Assessment (RRA). Here again, the standard was developed and approved by the EGC's Technical Committee, which includes Pact and Trafigura. The standard applies to miners, cooperatives, EGC, and buyers, and according to the standard itself, the "EGC Technical Committee is tasked with implementing management controls and due diligence processes to drive the application of these Standards" (EGC 2021b, 3). Under the current system, the requirements of the standard are applied on site by Pact, under the monitoring of governmental agencies. Those include the newly created ARECOMS as well as the *Centre d'Expertise, d'Evaluation et de Certification* (CEEC, Center of Expertise, Evaluation and Certification) and the *Service d'Assistance et d'Encadrement de l'Exploitation Minière Artisanale et à Petite Echelle* (SAEMAPE, Department of Assistance and Supervision of Small-Scale Mining).

As the current sole approved buyer of the EGC's (future) stockpile of ASM-produced materials, Trafigura's engagement with the Congolese state-owned company is critical. The Swiss company is also bound by its midstream and downstream customers to provide responsibly produced cobalt, and as such the involvement of Trafigura in the definition of the

EGC's sourcing requirements follows a logical pattern of reputational risk management. However, I also intend to illustrate how the level of intimacy in the relationship between a state-owned company and its (to date, only) private client in the definition of the existential features of the public entity raises questions. The partnership between the EGC and Trafigura, has the potential to be transformational for the sector. However, the clauses also question the effective independence of the Congolese company and its ability to define its own sourcing and selling practices, as well as welcoming other clients. Poised to become the central buying and selling entity of ASM cobalt in the country, an industry representing 15 to 30 percent of the country's production (Baumann-Pauly 2020, 3), this situation raises important competitive concerns. These are beyond the scope of this article and necessitate a deep engagement with the long-term impacts of the strategies adopted by both companies. Future research should explore this topic to assess the cost-benefits of such practices, the potential benefits for global recognition of the EGC standard (including by downstream purchasers), and the experience sharing spurred by such collaborative processes.

7- Supply chain reactions to the establishment of the EGC

The establishment of EGC has been welcomed by many actors in the responsible cobalt sector who translated the immense expectations that the industry is putting on the company. During the 2021 OECD Forum on Responsible Minerals Supply Chains, the EGC and its partners, Trafigura and Kumi Consulting engaged in a campaign of sensibilization around the role of the new company. This strategy was furthered in June 2021 during the DRC Mining Week Online event.¹³ In this part I discuss the supply chain reactions to the establishment of the EGC, gathered through interviews performed between January and early

¹³ Surprisingly, the panel titled "Fitting into a New World: Transparency Takes the Center Stage" during which EGC's role in responsible cobalt sourcing was discussed, no representatives from EGC were present while Trafigura was represented as speaker.

June 2021. A key finding of this research is the lack of understanding of the role (or even the existence) of the company prior to this sensibilization campaign. However, I argue that this limited public attention raises questions regarding the establishment of such a strategic corporate actor with the ability to define cobalt artisanal sourcing in years to come.

During the research it appeared that knowledge of the EGC's role and structure depended on the interviewee's company's location in the supply chain. The further from the upstream sector, the least the company had in-depth understanding of the . While a large part of the cobalt extracted in the Congo ends up in refining plants in China¹⁴, it appears that the Chinese agency in charge of this industry was unaware of the establishment of the company (IN-IO-002-03152021). This gap in engagement of Chinese actors with the EGC could be traced back to the highly competitive nature of cobalt sourcing and the central role that Trafigura, a non-Chinese company, holds in the new system. Chinese actors have been known to source from ASM for years, including at Kasulo and Kamilombe artisanal sites where Congo DongFang International Mining (CDM), subsidiary of Huayou Cobalt, is the exclusive buyer (Carter and Sturmes 2020). These tensions can also be identified in the latest socio-economic assessment of Kasulo commissioned by the EGC's Technical Committee, and during which access to the site was not allowed by CDM personnel (Morisho and Lenfant 2021, 12). This situation needs to be studied more in depth and could constitute a productive avenue for research in the coming years.

Another reaction from supply chain actors, linked to the lack of understanding of the EGC's role, scope, and structure, is the fears around the creation of a monopoly. In one of the interviews I conducted with downstream companies, the representative stated clearly "When I first learned of it, I was happy that there was going to be a way for ASM miners to participate

¹⁴ In 2017, China refined 59.5 percent of the world's cobalt production. By comparison, while DRC supply 64.1 percent of the mining production, it refined only 0.3 percent (BGR 2018, 2).

.... I don't like the idea of a government monopoly ... I don't like the idea of a monopoly in and out of itself" (IN-DC-001-04082021). The concerns on the creation of a state monopoly reflect a limited understanding of the on-the-ground realities and the complexities surrounding ASM cobalt, in particular when addressing the illegal market. In many ways the EGC's established monopoly answers not only the challenge of ethical sourcing of minerals but also to secure revenues for the state through taxes, a process currently extremely weak¹⁵. As Trafigura's head of corporate social responsibility argued in a panel at the DRC Mining Week Online, the Swiss company's "key objective is to underpin confidence in the EGC's cobalt. So, ensuring that a number of critically important controls are introduced. Those controls will address for example a safer, cleaner, more respectful formalized working environment. We will make sure that taxes, fees and royalties are paid to the state, so the state really stands to benefit from this incredible resource" (2021). Hence the EGC, and the constitution of a centralized state monopoly responds to the lack of effective controls over the artisanal cobalt sector from a reputational risks perspective for the buyers and taxation for the state. Additionally, in July 2021, the announcement that the EGC will establish a price floor of USD 30,000 per tonne, solidified the creation of an effective monopoly (Reid 2021). Describing the role of the EGC, the author argued that the company will "buy all artisanal cobalt produced in the country to try to boost government revenue from the largely informal sector in which miners work by hand and sell to unregulated middlemen" (ibid.).

In parallel to these reactions, some supply chain actors raised concerns regarding the ability of the EGC to effectively perform its role. In particular the extremely high and binary requirements of the Certified Trading Chains (CTC) standard, a framework now part of the Congolese Mining Code, greatly limits the ability to certify any artisanal mine site in the country. According to one service provider involved in the country's mining industry, no

¹⁵ For more information on the link between formalization and taxation, see Hilson 2020.

mine in the DRC, with the possible exception of Mutoshi when the pilot project was implemented, could be certified under CTC. This situation makes the EGC's purchase of artisanal materials largely illegal under the law (IN-SP-002-04142021). Following the publication of the EGC standard, when asked about how this new framework would fit into the existing legal system, the same interviewee argued that "it will be made to work. It's going to be those political compromises, legal compromises, that don't technically respect law but flirt with the idea of respecting it" (IN-SP-002-04142021). This position is shared by other stakeholders in the cobalt industry and reflects more a potential avenue for learning than a *fait accompli*. It remains that the vast majority of respondents perceive the establishment of EGC as a chance for the industry and the DRC to include artisanal miners in responsible supply chains and to ensure that these miners and the Congolese state benefit from the wealth generated by the cobalt industry.

8- Conclusion

In this article, I discussed the establishment of the new state-owned Entreprise Générale du Cobalt (EGC) and its role, structure and future hopes in the formalization of artisanal and small-scale mining (ASM) of cobalt from the Democratic Republic of the Congo (DRC). Far from being a one-off experiment, the EGC follows a historical trend that saw the creation of state-promoted monopolies to secure both tax revenues from the ASM sector, and now to address reputational risks prevalent in the industry. From EMAK to NOUCO, the provincial and national governments unsuccessfully attempted to set up entities aiming to centralize the buying and selling of cobalt and copper ores. Nevertheless, while recognizing historical continuities, the structure of the new company is profoundly different,

particularly at a time when the DRC is becoming increasingly critical to the world's green transition.

As I discuss, the role of Trafigura as the only approved buyer of the EGC's materials (despite the EGC not yet up and running) should be studied more in-depth and monitored to learn from this very close collaboration between a company and its direct customer. While the EGC announced in July 2021 that it will start sourcing cobalt ore from the Kasulo ASM site within 8 weeks (Reid 2021), it is critical for all supply chain actors to better understand the role of EGC and its structure and assurance mechanisms in place, including the EGC Responsible Sourcing Standard. Interviews conducted with a wide variety of actors showed a profound divergence in established knowledge of the new company, and the role of its main partner, Trafigura. More research needs to be done on the impact of the EGC regarding corporate due diligence. While beneficial in theory, the establishment of the EGC could rid companies from the burden of ensuring their own due diligence in the artisanal sector by partnering with an a priori legitimate entity. Additionally, studies should be conducted regarding the implementation of responsible sourcing requirements by a private non-profit, Pact, as well as the national agencies, ARECOMS, CEEC, and SAEMAPE. Finally, an in-depth analysis of the gap between intentions and expectations, legal frameworks and the actual workings and challenges of developing the EGC will be beneficial to orient the actions of the new entity. Nevertheless, the industry's general welcoming of the EGC will give the company an important chance in shaping the future of the cobalt industry, not only at the ASM level but beyond it as a major player in one of the world's most sought-after raw commodity.

Annex I – Interviews

Interviews	
Legend	
Interview_respondent category_respondent number in category_interview date	
Respondents' Categories	
CS	Civil Society
DC	Downstream Company
IO	International Organization
MC	Midstream Company
NP	Non-Profit
R	Researcher
SP	Service Provider
UC	Upstream Company
Interview List	
Interview 1	IN-MC-001-02012021
Interview 2	IN-MC-002-02082021
Interview 3	IN-SP-001-02172021
Interview 4	IN-CS-001-02222021
Interview 5	IN-NP-001-02222021
Interview 6	IN-IO-001-02242021
Interview 7	IN-UC-001-03012021
Interview 8	IN-UC-002-03022021
Interview 9	IN-IO-002-03152021
Interview 10	IN-CS-002-03182021
Interview 11	IN-DC-001-04082021
Interview 12	IN-R-001-04092021
Interview 13	IN-UC-003-04122021
Interview 14	IN-SP-002-04142021
Interview 15	IN-R-002-04192021
Interview 16	IN-SP-003-04222021
Interview 17	IN-IO-003-05032021
Interview 18	IN-SP-004-05062021
Interview 19	IN-IO-004-05122021
Interview 20	IN-R-003-05172021
Interview 21	IN-CS-003-05182021

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