

ARTISANAL AND SMALL-SCALE MINING IN THE EAST REGION OF CAMEROON: AN OVERVIEW

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ABSTRACT

Artisanal and small-scale mining (ASM) has been widespread throughout the world for over 2000 years, and today features heavily in the rural economy of many developing countries.ⁱ like Cameroon. The interests of the country and the community demand that all forms of mining, whether large, small or artisanal, should be subject to the same requirements in respect of licensing, safety, health and the environment. Since 2001, Cameroon has engaged a series of mining sector reforms aimed at attracting foreign investments as a way to maximize government revenue streams that will contribute to development and poverty reduction. Beside the promotion of industrial mining projects, artisanal mining has been an important activity for thousands of people in the East region of Cameroon for a very long time but has not resulted in significant improvement in the economic and social situation of those involved.ⁱⁱ In other words, the East region is rich in resources but under-developed, poor times and landlocked in certain districts.ⁱⁱⁱ The methodology involves a single region study focused on the overview of artisanal mining and remarks of the ministry and support organisations, national laws and regulations relating to 'ASM' in the East region. This research work covers the latest developments in terms of the institutional and regulatory frameworks for 'ASM' in Cameroon. The research concludes with the identification of the current opportunities and challenges of 'ASM' as well as a way forward that research works on this area should work.

Therefore this paper focuses specifically on an overview of artisanal and small-scale mining in the East region of Cameroon with much emphasis on the extraction of gold and diamond.

Keywords: Artisanal mining, mining, small-scale mining, gold, diamond, mineral resources, Bertua, East region and Cameroon.

INTRODUCTION

Artisanal mining is a nature-dependent activity that has evolved differently due to national differences in governance and legal systems, as well as the presence or absence of political will to promote the sector.^{iv} There are diverse definitions of different types of ASM. So far, artisanal mining broadly refers to mining by individuals, groups, families or cooperatives with minimal mechanization, often in the informal (illegal) sector of the market.^v Definitions are shaped by stakeholders ‘perspectives and vary from country to country.’^{vi} However, many authorities used the terms “artisanal mining” and “small-scale mining” interchangeably likewise in this paper. It is no gain saying the fact that ‘ASM’ has been playing a crucial role in poverty alleviation and rural development. Government participation in the development of its natural resources is of utmost importance particularly its mining sector. This has further reaffirmed the principle of permanent sovereignty of States over their natural resources. Therefore, permanent sovereignty of States over their natural resources is an inherent and inalienable right.^{vii}

It will be ironical to say that petroleum sector almost literally caused the demise of the solid mineral sector. This is adjudged from the revenue accruing to the Cameroonian Government from crude oil sales which in 1985 production of crude oil reached a record level of 186,000 barrels/day.^{viii} However, the sector is perhaps better known for its high environmental cost and poor health and safety record. Many continue to view it as dirty, unprofitable and fundamentally unsustainable. The artisanal mining sector was organised even before national independence, contributing up to 20% of the economy. Artisanal mining can be traced some decades back ago essentially concentrating in some localities in the East region of Cameroon. Artisanal mining (diamond and gold) activities continues in the area unabated till today. After independence, the activity continued but was hindered by smuggling and by exploitation of local actors. Numerous artisanal gold mining sites are known.^{ix} (producing around 1500 kg/year), but it appears that no modern exploration methods have been used to locate Cameroon’s primary gold potential.^x The resources mined in Cameroon are limited, with annual artisanal production of around 45 000 oz/year of gold and 12 000 ct of diamonds, as well as various building materials.^{xi} However, in recent years, there has been a revamping and reorganising of the mining sector. The government is currently examining the assistance it gives to the artisanal mining sector with the recent birth of the Support Framework and Promotion of Artisanal Mining (CAPAM),^{xii} and today SONAMINES. Article 18 states that the state shall transfer to SONAMINES for ownership or use, depending on the legal status of

the property, assets as well as the property of the defunct Mining, Handicrafts Support and Promotion Framework (CAPAM), comprising built-on or non-built on estates, according to types or use. ^{xiii} Cameroon has a strong geographical potential for a number of mineral resources that, if well managed, could support economic growth.

Cameroon diamond and gold is mainly mined by small-scale artisans. In fact, according to the government, the estimate of small-scale artisanal mining produced about 16,653 kgs of gold between 2010 and 2015. ^{xiv}

CONCEPT OF ARTISANAL AND SMALL-SCALE MINING ‘ASM’

For the sake of clarity, the concept of small-scale and artisanal mining needs to be defined. Generally speaking, artisanal and small-scale-mining refers to mining by individuals, groups, families or cooperatives with minimal or no mechanisation, often in the informal (illegal) sector of the market. Pursuant to the code, small-scale mining is defined as any permanent small-scale mining projects based on proven existence of a deposit, using standard rules, semi-industrial or industrial processes, and whose annual production does not exceed a certain tonnage of the marketable product in the form of mineral ore, concentrate, or metal, as laid down by regulation for each substance.^{xv} Despite many attempts, a common definition of ‘ASM’ is yet to be established. For others, there is no generally agreed definition of the term ‘small-scale mining- although it is often defined with regard to mine’s output, capital investment, numbers employed or managerial structure. Small-scale mining is a relative term; thus the choice of limiting criteria to distinguish between small and large-scale mining (such as production rate, capital and labour employed) will differ from commodity to commodity and from country to country. By artisanal mining, it is meant, small-scale mining involving the extraction of minerals with the simplest of tools, on a subsistence level. In some countries, a distinction is made between ‘artisanal mining’ that is purely manual and on a very small-scale, and ‘small-scale mining’ that is more mechanised and on a large scale. Nevertheless, the terms ‘artisanal and small-scale mining’ will be used interchangeably.

With many countries with large mining industries, both small and large exploration and mining companies compete aggressively and successfully side by side. This allows for the exploitation of small (low capital) projects and provides opportunities for more entrepreneurial operators.

PHYSICAL CHARACTERISTICS OF THE EAST REGION: A REGION SPECIALISED IN ARTISANAL AND SMALL-SCALE MINING

The East region occupies the south eastern portion of the republic of Cameroon. It is bordered to the east by the Central African Republic, to the south by Congo, to the north by the Adamawa region, and to the west by the central and south regions with 109,002 km² of territory, it is the largest region in the nation as well as the most sparsely populated. Historically, the peoples of the east have been settled in Cameroonian territory for longer than any other of the country's many ethnic groups, the inhabitants being the Baka (or Babinga) pygmies.^{xvi}

It is made up of four (4) divisions i.e. the Boumba-et-Ngoko, Haut-Nyong, Kadey and Lom-et-Djerem with Bertua as a regional capital.

The soil of the east is predominately ferrallitic,^{xvii} rich with iron and red in colour. The southern three quarters of the region consists of metamorphic rock such as gneiss, schist, mica and migmatite. Starting at about the level of Bertua and going north, however, granite becomes the dominant soil component.^{xviii} While the region supports an abundance of plant life, it is not particularly fertile due to leaching caused by the humid environment. Eastern dirt hardens quickly in the sun, and it is often used as a building material by poorer inhabitants.

About the relief, almost the entire territory of the East region lies on the South Cameroon Plateau that forms the south eastern half of the country. The elevation thus varies between 500 and 1000 metres above sea level except for lower-lying plains of 200 to 500 metres in the extreme south-east centered on the Dja, Boumba, Sangha and Ngoko River.^{xix} The land consist largely of monotonous, gently undulating hills known as "half-oranges due to their resemblance to that fruit.

Concerning the Plants and animal life, approximately the lower two thirds of the region is covered in rain forest, which grows progressively thicker as one travels south. The forests are composed of hardwood evergreens species such as dibetu, ebony, iroko, mahogany, obeche, and sapelli, some which grow to heights of 70 metres or more. The upper third of the region (beginning at about the latitude of Bertua and Batouri) is dominated by humid, wooden Savana. Trees here are sparser, may still may grow to be come as tall as 20 metres.

Animal life is abundant and diverse. The forests are inhabited by numerous species of monkey, as well as some of the last populations of gorillas and chimpanzees in Cameroon.

REGULATORY FRAMEWORK FOR ARTISANAL SMALL-SCALE MINING IN CAMEROON

The law governing the mining sector in Cameroon is law N° 2016 of 14 December, 2016 instituting the mining code. According to the Code, any natural or legal persons may undertake or carry out an activity governed by this law on State public land or State private land, national land or private individual land.^{xx} Also only legal persons under Cameroonian law operating in the mining sector shall be granted a mining title.^{xxi} The Ministry of Mines, Industry and Technological Development (MIMTD) is responsible for the issuance of mineral exploration licenses. The institute for Geological Research (IRGM) under the MIMTD is the agency responsible for all Geologic and mining activities (including conducting geologic exploration programs, mechanized drilling operations, overseeing the mining of mineral deposits and preventing unauthorized exploitation of mines and quarries) in the Cameroon.

a. Exploration Permit Specific to Small-Scale Mining

An exploration permit is a legal instrument that gives the holder the exclusive right to conduct exploration works within the perimeter of the permit.^{xxii}

The exploration permit shall be issued to a legal person under Cameroonian law by the Minister in charge of mines,^{xxiii} for the purpose of conducting exploration works to locate and evaluate mineral deposits and to determine conditions for the commercial mining thereof.^{xxiv} As for small-scale mining permits, it shall be issued by the Minister in charge of mines.^{xxv} A small-scale mining permit shall confer on its holder the right to extract mineral substances from the soil or subsoil, by any standard process or method, to obtain the useful substances therefrom.^{xxvi} The small-scale mining permit shall be granted for an initial period of 5 (five) years, renewable for periods of 3 (three) years.^{xxvii}

The area for which a small-scale mining permit is granted shall be determined on the basis of the mineral deposit that a feasibility study had earmarked for mining^{xxviii} and the surface area for which the permit referred to in section 52 (1) above is granted shall consist of a single polygonal block wholly contained within the exploration permit on the basis of which the small-scale mining permit is issued.^{xxix} So, a small-scale mining permit holder shall be required to start mining and developing the deposit within a period not exceeding 2 (two) years, with effect from the date of notification of the permit, failing which the permit may be withdrawn after a formal notice served remains unheeded,^{xxx} without prejudice to other penalties provided

for in this law.^{xxx1} Moreover, Small-scale mining permit holders shall be entitled to exclusive occupancy for mining purposes and any other related operations, and to dispose of only mineral ores specified in the mining permit.^{xxx2}

Pursuant to the code, the State shall hold 10% (ten per cent) of the total share capital of the small-scale mining company, and as resource owner, the State shall be entitled to the said shares free-of-charge and without any encumbrances. Shares held by the State shall not be subject to dilution in the event of share capital increase.^{xxx3} It should be understood that the holder of an individual non-industrial miner's card may, at any time, mark out one or several non-industrial mining perimeters, in accordance with the provisions of this law and the conditions laid down by regulation.^{xxx4}

It is clear that the issuance of artisanal mining licences in Cameroon is within the competence of the regional and sub divisional delegates in charge of mines for the region concerned who awards the artisanal mining permit in Cameroon. Among the many artisanal mining sites located in the region, only one of the owners of the permits was operational and accepted to be interviewed. He reported he had spent over XAF 1.800,000 to obtain the permit. Due to administrative bottlenecks and corruption, obtaining a permit entails much money and time, which artisanal miners do not possess.^{xxx5}

b. Mining Agreement

A mining agreement shall be signed between an exploration permit holder and the State with a view to developing and mining or financing a new mineral deposit,^{xxx6} and the mining agreement shall be signed on behalf of the State by the minister in charge of mines and on behalf of other parties to the agreement by their legal representatives.^{xxx7} The mining agreement referred to in section 44 (1) shall be drafted according to a standard format approved by regulation.^{xxx8} The duration of the mining agreement shall correspond to that of the mining title.^{xxx9}

The mining agreement shall be established on the basis of an exploration permit application deemed admissible. The mining agreement shall be signed before the granting of a small-scale or industrial mining permit and shall take effect from the date of notification of the permit.^{x1} The signing of the mining agreement referred to in section 45 (1) shall be subject to

classification and certification of the reserves of the mineral substances to be extracted and the mining agreement shall not go contrary to the provisions of this law. ^{xli}

c. Mining Permit

A mining permit is a legal document that confers on the holder the exclusive right to conduct mining operations within the perimeter of the permit. ^{xlii}

As part of the exploration referred to in section 46 (1) of this code, where a mineral substance other than that for which the mining permit was granted is discovered, the permit holder shall enjoy the preferential right to mine it. The preferential right period shall not exceed 18 (eighteen) months with effect from the date of notification of the discovery to the State. ^{xliii}

Where necessary a small-scale or industrial mining permit holder may request from the minister in charge of mines for a change in the originally approved work programme, under the terms and conditions laid down by regulation. ^{xliv}

A small-scale or industrial mining permit holder who undertakes to build a processing plant for all or part of the mining production may benefit from special incentives. ^{xlv} Small-scale or industrial mining permit holders shall submit progress reports in hard and soft copies to the minister in charge of mines, under the terms and conditions laid down by regulation. ^{xlvi}

d. Leadership of a Camp

The leader of a camp called “*chef de chantier*” is generally the person who discovered the deposit. Discovery is through prospection. Usually discovery is done by hunters who already work in an existing mine. ^{xlvii} People move from either a forest farm settlement or an existing camp to the areas around the river courses and swamps and bore shallow prospection holes at the periphery of the settlements. The gravel is washed and production reveals a promising deposit or not. If the results are promising, a deeper hole is dug to confirm the previous results obtained. Once affirmed as being a good deposit, a camp is set up a few meters from the mine, generally on a slope. Trees are cleared and felled around the settlement to allow for better sunlight. The discoverer of a deposit is the natural head of the camp and he outlines his working and settlement principles. He designates an assistant who is either a close family member or a trusted friend. ^{xlviii} The first inhabitants of a camp are the “*chef de chantier*” and his immediate family; other relatives and friends then follow. The growth in the population of a camp depends on gold production. If production is good, many more people, both miners and businessmen,

will rush in to get a share in a short period of time. Information will spread about the mine locally as miners work there and go back to the village for supplies. Artisanal miners do not have prospector cards as required by the 2016 code. This is but very clear that they are working clandestinely even the collectors since they are not legally recognized.^{xlix}

Pursuant to the code, the small-scale permit shall confer on the holder a movable real right on the substance and an immovable real right within the perimeter during the period of the permit, such rights shall be open to farm out and may be pledged and mortgaged respectively.¹

e. Organisation of Artisanal Mining in the East Region of Cameroon

Artisanal mining has a traditional classification which is headed by the Village chief, who is almost like the head of the mining field.^{li} The hierarchy is as follows: The field leader is in charge of partitioning the fields allocated to mining. He may play the role of a trainer to beginners in the mine. He normally receives a percentage of the income allotted to miners. Then, the pit leader who is in charge of allocating the space called a pit. He often works with his family members like his brothers, women and children. Lastly, we have simple diggers who can be hired by the leader of the pit.^{lii} In most cases, children learned artisanal mining from their parents who were former diggers.

f. Mode of Exploitation/Process

Artisanal and small-scale mining are mining activities that use rudimentary methods to extract and process minerals and metals on a small scale. Artisanal gold miners often use the simple method of “panning” for gold: using a pan to scoop silt and sand from a river bottom, and sift through it for bits containing gold. Often miners combine mercury (see the section on “Risks”) with silt that contains gold, to form a hardened amalgam that has collected most of the gold metal from the silt. The amalgam is later heated with blowtorches or over an open flame to evaporate the mercury, leaving small gold pieces.

g. Marketing of Mineral Products

Our focus here is basically about places and moments of periodic exchange of supplies and other materials in the region. Those in the market agree on the fact that the collectors carry out transactions among themselves or with miners behind the counters.^{liii} In Gbiti for instance, the

market that holds every Wednesday witnesses a massive affluence of people from all the eastern villages and most especially, neighbourly Central African townships.

Although these markets are special days for the trade in diamond, (Thursday in Boubara and Friday in Toktoyo), these exchanges are done out of people's sight, behind the counters or in houses. It is almost impossible to know the rate of transactions unless one is initiated into it. Generally, the "Centro" (Central Africans) sell their minerals with primary aim of buying food stuffs. It is very clear that the methods and instruments of diamond evaluation does not favour miners in the east region.

Among the biggest of these markets is that of Gbiti. Here most of the market products from Toktoyo and Boubara are sold.^{liv} This is therefore the turntable of the trade in diamond in the region. Its operations are done behind counters as said before. Let's not forget that most of the collectors who are also traders know enough on diamond and enjoy a consistent investment capacity. Some of them have been in the region for more than twenty years and may be foreigners. It is important to note here that most of the dealers in the markets are Mauritians and Malians.^{lv}

Collectors often offer higher prices compared to those offered by CAPAM. The state-owned institution CAPAM fixes the official price of gold to be received by artisanal miners.^{lvi} Hopefully, with the creation of SONAMINES, prices will be fixed taking into consideration the carat of the gold, the price on the world market in dollars, and the percentage lost at smelting. At this point in time, miners generally do not have any bargaining power. In this light, much is expected of newly created SONAMINES.

Indeed, collectors often offer higher prices compared to those offered by CAPAM. Miners generally do not have any bargaining power. It is generally a must-take price from both collectors and CAPAM.^{lvii} As we speak, the price of gold has tremendously increased within the last 10 years – from XAF 4500 per gram in 2003, to XAF 17,000 in 2013, which is an increase of 377%. All miners said the situation is better today than before, with the exception of too many price fluctuations. All miners reported that they did not pay taxes. CAPAM pays taxes together with other supplementary purchase charges. CAPAM pays 3% of the value of the gold it purchases as taxes, as stipulated by the legislation in place. The 3% is shared as

follows: 50% to the public treasury, 15% to the local council, 10% to the local residents and 25% for the follow-up commission.^{lviii}

h. The Exportation of Diamond from Cameroonian Territory

It could be capable to identify where diamond circulating in the east region and Kadey in particular was from. It is left to know where the diamond in question goes to, from the Gbiti market which is the main diamond exchange pool.

First and foremost, we heard about main collectors and we managed to meet a few of them. They are based in Batouri, Gbiti and Boubara etc. Their work is to buy the diamond in great quantities. They receive the minerals from less influential collectors. But still, how does the diamond leave Cameroon?

The natives here used the term “smugglers”. “Smugglers” are people who may be foreigners who come and buy from the main collectors or at the diamond exchange zones. They buy it in large quantities for export.

These people are clandestine who go against the laws that have been put in place. They pay no taxes; neither do they have any authorisation to export. Although this could not be verified, it seemed logical to see how involved the purchase office was in this trade. The main purchase office is in Mandjou (Bertoua), owned by Mr Alhadji Djibo. To him, selling gold is more profitable; given that its supply is reliable in Cameroon and the world prices are available on the Internet. This is also because all diamond cannot leave Cameroon through a lone exit. It is believed there are “smugglers” based in Yaounde and Douala who often buy minerals. Other purchase offices do probably exist. In any case, our interviewees gave us a deaf ear, which was a strategy to deny the existence of exportation from Cameroon. How can traceability be implemented when the ancient exit points are not yet known?^{lix}

MAIN INSTITUTIONS GOVERNING ARTISANAL AND SMALL-SCALE MINING

The mining sector has evolved over the years. Not only has the national government been developing laws and regulations, but regional and international organisations have also exerted influence. Let's commence here with the national initiative.

National Initiative

a. The Ministry of Mines, Industries and Technological Development (MINMIDT)

Pursuant to Presidential decree N° 2012/432 of 1 October 2012, the ministry of mines, industries and technological development is in charge of the elaboration and implementation of the government's mining and industrial policy and technological development.^{lx}

According to Decree N° 2012/432 of October 1, 2012 reorganised the Ministry of Mines, Industries and Technological Development (MINMIDT),^{lxi} which develops and implements industrial and mining policy. The MINMIDT's National Brigade for the Control of Mining Activities [Brigade Nationale de Controle des Activities Minières] is responsible for enforcing mining regulations and monitoring logging activities, mineral exploration and mining activities, and the activities of springs and mineral water companies. The MINMIDT's Department of Mines (Division Direction des Mines) includes the sub-directorate of Mining Activities Division of Mining Activities, the Directorate of hydrocarbons (Sous direction des hydrocarbures), and the Directorate of Mining Registry, and the (sous direction de Cadastre Minier). The Department of Geology (Direction de la geologie) includes the Division of Geologic Prospecting and the (Sous Direction de la Prospection Geologique) and the Division of geological Mapping and Natural Hazards, (Sous-Direction de la Cartographie geologique et des risques naturels). The Department of Industry (Direction de l'Industrie includes the Division of Local Transformation (Sous Direction de la Transformation Locale), which is responsible for policies and programs for the local processing of mineral production.

b. Support Framework and Promotion of Artisanal Mining (CAPAM)

CAPAM was created in 2003 and today The National Mining Company (SONAMINES) since 14th December, 2020. It was responsible for supporting artisanal miners and promoting the development of informal gold....sand and gravel, and sapphire mining operations into more

formal ventures such as mining cooperatives or more mechanized operations.^{lxii} In Cameroon, traditional administrative structures have controlled the small-scale mining sector post-independence. Over the course of time, large number of difficulties led to a drastic reduction in the sector's contribution to national income.

c. The National Mining Company (SONAMINES)

The Cameroon National Mining Company (SONAMINES) was created on the 14th December, 2020 through a Presidential Decree^{lxiii} signed by the Head of State. It was created to replace CAPAM.^{lxiv} This new establishment will henceforth develop and promote the mining sector in Cameroon. Decree N° 2020/750 of 14 December 2020 went further to approve the articles of association of the National Mining Corporation and Decree N° 2020/749 of 14 December 2020 to set up the National Mining Corporation.^{lxv}

According to the Decree, SONAMINES is a public company with the State as its sole shareholder. However, the Decree states that, the shareholding of SONAMINES may be open to other public or private entities. The capital and the conditions for participation in the shareholding of the public company will be set out in the statutes.

The Decree defines the SONAMINES mission which is to develop and promote the mining sector and to manage the State's interests in this field.^{lxvi}

In collaboration with other administrations and competent bodies, the new company will carry out mineral substances, exploration and exploitation activities and ensure the implementation of measures relating to the restoration, rehabilitation, and closure of mining exploitation sets. Also, SONAMINES will take shareholdings (in sites and companies operating in the field of exploration, exploitation, marketing, treatment, and processing of mineral substances) through contributions, orders, subscriptions, purchase of securities etc.^{lxvii} Placed under the supervision of the Ministry of mines, the company is being created amidst chaos in the country's mining sector. Indeed, according to the Artisan Mining Support and Promotion Framework (CAPAM), the Cameroon Public Treasure loses about one billion CFAF every month due to the concealment of resources produced by mining companies. Again, according to the Ministry of Mines, only 40% of Cameroon's mining potential is known to the public authorities.^{lxviii} The Mining Crafts Support and Promotion Framework (CAPAM) shall cease its activities six (6) months after the effective start of those of SONAMINES.^{lxix}

Relevant International Organisations

a. The International Labour Organization (ILO)’s Convention on Safety and Health in Mines, 1995 (No. 176)

This Convention^{lxx} provides minimum safety standards against which all changes to mine operations should be measured. This convention applies to all mines.^{lxxi} The Convention sets out procedures for reporting and investigating accidents and dangerous occurrences in mines. Governments that ratify it undertake to adopt legislation for its implementation, including the designation of a competent authority empowered to monitor and regulate safety and health in mines. Guidelines can be found in the ILO’s Code of Practice on Safety and Health in Open Cast Mines.^{lxxii} As of the end of 2015, 31 nations have ratified the Convention.^{lxxiii} Of course ratifying the convention is optional, many prominent mining nations (including those notorious for mining incidents) have chosen not to participate.

b. Community Artisanal and Small-scale Mining (CASM)

The mission to promote the small-scale mining sector are more pronounced in the western, eastern and southern parts of Africa. An example of such an initiative is the Community Artisanal and Small-scale Mining (CASM) initiative under the auspices of the World Bank. CASM increases networking, information exchange and best practices sharing among ASM stakeholders and plays a coordination role between ASM assistance projects and donor funding.^{lxxiv}

c. The Kimberley Process

The Kimberley Process was initiated by African diamond-producing countries in May 2000 to develop an international certification scheme for rough diamonds to prevent “conflict diamonds” from entering legitimate markets.^{lxxv} This process was supported by the World Diamond Council and the United Nations, and implemented by a UN General Assembly vote in 2003. The certification process follows each diamond from mine through every transfer of ownership to retail sale. The process is supported by a broad range of international stakeholders in the diamond trade, including government officials, industry representatives and non-governmental organisations. Participants officially launched the Kimberley Process Certification Scheme (KPCS) on January 1, 2003. Participants are required to export rough diamonds in tamper resistant containers and provide certificates validating that the contents are conflict-free. Participants are also prohibited from importing/exporting rough diamonds

from/to countries that are not implementing the KPCS. The process aims to reduce the use of diamonds to fund armed conflict, rebel activities, government overthrows and the arms trade.

^{lxxvi} It should be noted that Cameroon is a member Kimberley Process.

d. Extractive Industries Transparency International (EITI)

Extractive Industries Transparency International (EITI) founded in 2002 encourages governments to disclose their revenues from oil, gas and mining operations, verified by reports of company payments to governments. EITI starts by gaining consent from host governments for reporting their revenues and the payments by companies. Most of the consenting countries have called for disclosure of aggregate company payments across all reporting companies.^{lxxvii}

This method meets the primary purpose of transparency initiatives, to ensure that governments use their revenues to benefit their citizens. It is worth emphasising that the implementation of EITI in Cameroon affects only oil. A key problem is non-respect of the obligation to account for all payments made by the private enterprises that exploit the natural resources.

The Extractive Industries Transparency Initiative (EITI) aims to remedy such poor governance by applying six guiding principles:

1. All payments into government coffers from oil, gas and mining exploitation, and all revenue received by the government from enterprises in the extractive industries sector, are regularly communicated to the general public in an accessible and explicit form.
2. In the absence of government auditing of payments and revenue, a reliable independent audit is requested in conformity with international norms.
3. Payments and revenue are reconciled by a reliable independent administrator, who expresses his opinion on the conciliation of figures (or the discordance).
4. The approach extends to all enterprises, including State corporations.
5. Civil society takes an active part in designing, monitoring and assessing this process and contributes to the public debate.
6. The government and all contracting parties elaborate a financially viable work schedule with the help of international financial institutions. The schedule is accompanied by measurable targets, an implementation schedule and an evaluation of potential constraints.^{lxxviii}

Small-scale mines are testimonies for the existence of mineral resources, often pioneering alluvial production close to primary sources that later become industrial discoveries. The small-

scale mining operations are also appropriate activities for marginal deposits, where industrial exploitation might not be economically feasible.^{lxxix}

During the past 10–15 years, governments and donor organisations have implemented an array of technology, support-related, sustainable-livelihood and poverty-reduction projects for ASM.^{lxxx.}

OPPORTUNITIES AND CHALLENGES IN THE ARTISANAL AND SMALL-SCALE MINING SECTOR IN THE EAST REGION

1. Opportunities of Artisanal Mining In The East Region

a. Job/Employment Creation

Artisanal mining is an attractive employment option for many in the East region of Cameroon; the barriers to entry are minimal (low technology and little capital is needed) and activity levels are dynamic because precious minerals often rise in value during periods of economic crisis. So to speak, ‘ASM’ offers job opportunities for people of the East region and beyond at different stages of the process.^{lxxxii} The marginalised population of the East region in particular benefits from jobs created by ‘ASM’ and this gives them hope for a better future. For instance, in Cameroon 20 000 – 30. 000 employment opportunities with plans for 60 000 due to implementation of CAPAM.^{lxxxii} These employment opportunities allow several million Africans to earn money, obtain healthcare, create a better home environment and provide and provide education for their children.

Also, there is the potential for local businesses and individuals to profit from the presence of the mining project. Many sectors like catering, hotels, supply of materials, and security could have an increase in business related to the mining project. These businesses could also serve as partners, or as subcontractors in a mining project.

In fact, artisanal mining employ about ten times as many people, typically workers who are not eligible for employment in industrial mining due to a lack of formal education and experience. Furthermore, small miners’ earnings tend to be spent locally or sent as remittances to other poor communities, supporting sustainable economic growth in local communities. Bringing

ASGM into the formal economy through legalisation benefits governments in that they reduce illicit financial transactions, collect taxes, and often see a subsequent reduction in crime in these regions.^{lxxxiii}

b. Financing and Revenue

The State will collect much revenue from the mining companies, such as fees, land royalty, Ad Valorem tax, extraction tax, and others. This income will be paid to the public treasury, and if correctly used, will improve the economy of the country, region, council and local communities around the project. In Cameroon, solid mining during the 1997/98 fiscal year contributed only 4.8 billion CFA or 0.08% to the GDP.

By law, 10% of revenue from Ad Valorem tax goes to the region in which mineral extraction takes place, 10% of extraction tax goes to the local population, and 15% goes to the council with territorial jurisdiction over the area.^{lxxxiv}

The revenues generated from diamond and gold mining have transformed the lives of many people on the continent. The income not only increases the overall standard of living, but also funds essential government services such as health, education and development.^{lxxxv}

In Cameroon, gold mining started in 1933 and totalled about 20 tonnes between 1934 and 1984, which is an average annual production of 300 kg, currently worth about 2 billion CFA^{lxxxvi} In the East region of Cameroon, an estimated 100 kg of gold is now produced per month by some 10. 000 small-scale miners, mostly channeled through informal circuits.^{lxxxvii} Official figures by the Department of Mines and Geological Research are much lower: approximately 500 kg of gold produced annually by 'ASM' throughout the entire country.^{lxxxviii} With regard to diamonds, the 700-km border between Cameroon and the Central African Republic has significant diamond production evaluated at 800 carats per month in 1993, despite the inadequate experience of Cameroonians in diamond exploitation.^{lxxxix} In all, artisanal and small-scale mining generates income in the East region in particular and Cameroon in general.

c. Infrastructural Development

The revenue generated from the diamond and gold trade help build infrastructure in the East region in particular and the national territory. The surrounding population is likely to benefit

from the infrastructure that would be constructed for the transportation of ore (roads, railways, etc.). The Cameroon mining code provides potential for local development projects that will provide community benefits. Curiously, in the East region it is discovered that almost all the artisanal mines are accessible by motorcycles and by foot. Is this true? According to Foumena, W. C. and Bamenjo, J. N. (2013),^{xc} after visiting about 32 artisanal mines in all “we are aware that we did not go to some mines like Tamouna Guese and Mboumbe Nasse, as confirmed by the traditional leaders due to the bad roads”.

d. Education and Healthcare Improvements

Education opportunities have increased thanks to mining revenues. The revenue generated from diamond and gold mining have transformed the lives of many in the East region of Cameroon. The income not only increases the overall standard of living, but also funds essential government services such as health, education and development.^{xcii} According to Marc Anselme Kamga despite the economic reinforcement and financial support for educational development impelled by mining activities in the region, villages within active mining areas are more impacted negatively as 75% of students are abandoning schools for mining.^{xcii} A good example is the report about the situation in Lycee de Kampele Batouri where classrooms visited on the 9th September, 2021 on school resumption by the educational authority in the east region were discovered empty as students of this school had preferred mining to school.

With good governance and appropriate laws, these benefits can be achieved continuously.

2. Challenges of Artisanal Mining in The East Region

The negative impact of artisanal mining on both the population and the environment include: high rate of school drop outs, poor hygienic conditions in the mining camps giving rise to diverse health challenges, high rate of prostitution which leads to the spread of STIS, deforestation which leads to loss of farming land, water pollution and air pollution.

a. Environmental Challenges

Generally speaking, every mining project impacts the neighboring populations and environment in numerous ways:

In fact the process of mining destroys vast surfaces of land by removing vegetation and topsoil, and often blasting and drilling into the rock. This can mean the loss of forest resources, wildlife habitat, and/or agricultural cropland.

There is a risk of pollution of land, water and/or air due to exhaust fumes, dust, discharge or spills of oils, metals, sediment or other contaminants accidentally or purposefully released into the environment.^{xciii}

Development of a mine can lead to displacement of local people and wildlife, marginalization of indigenous groups, disputes over land rights and access, local price inflation due to the immigration of more people, problems linked to fair compensation for losses, and other social problems.^{xciv}

The main impacts are deforestation and land degradation; open pits which are animal traps and health hazards; stagnant water in excavated holes that are abandoned by the miners, providing breeding ground for mosquitoes; mercury use for gold amalgamation, inefficient extraction, dust and noise; underground and long-term hazards.^{xcv} In fact, local administration in the east region confirmed that gold mining is fuelling deforestation, silting of river beds, killing of aquatic ecosystems, toxic substances pollute the environment, destroying arable lands and partially destroying protected areas. A good example can be seen on the land degradation and deforestation caused by small scale gold mining in the Kampele, stream pollution caused by artisanal gold mining in Mongonam) air pollution produced by the grinding of quartz grains). A 30 years old abandoned pit of about 15 m deep which is about 50 cm from the main foot path in Batouri mining site stand out to be a serious danger on population of the area. It is an underground tunnel of about 25 m long excavated in Mongonam in search for gold. Death is unavoidable as children are discovered to have been sinking in these unrefilled pits dug during artisanal mining that has created a man-made lake in the east region.

b. Price Information: Priceless

An artisanal miner would benefit greatly from knowing the current market price before selling their day's catch. Artisanal miners are at a great disadvantage during sales negotiations when

they lack information on mineral and metal prices, contributing to a cycle of systemic economic insecurity.

c. Child Labour

Child labour is pervasive across many 'ASM' contexts, and integrated approaches are needed to target its root causes. Due to its hazardous nature to children's safety, health (physical and mental) and moral development, mining is considered one of the "worst forms" of child labour as defined by the ILO. In essence, in most cases, children learned artisanal mining from their parents who were former diggers. This activity provides job to this marginalized population and gives them hope for a better future. It is therefore a contribution to local development by the jobs created in the informal section.^{xcvi} Essentially, family constituted the major source of such labour in both Cameroon and CAR representing 84.62% and 64.29%, respectively. According to Jennings,^{xcvii} hundreds of thousands of children work in small-scale mines globally, with a few countries showing figures around 250,000 (including full-time and part-time).^{xcviii} In the East region, children start washing gold as young as 3; from 6 they begin breaking hard rocks with hammers and from the ages of 9 to 12 they go underground and do the same work as the older men.^{xcix}

'ASM' is therefore a contribution to local development by the employments created in the informal sector. Students who reach the secondary level go to the main secondary school found at Kette.^c Generally, they are much more active in the mines during holidays. In some fields like in the Loma field, children are seen seriously working while a mother is breastfeeding the baby in the field though a minor phenomenon which is not recurrent.^{ci} Is this not child labour that ought to be stamped out or discouraged?

The issue is that artisanal gold and diamond mining is associated with many social problems. Women and children are most affected. The participation of women in artisanal gold mining varies depending on local beliefs from different countries and communities. Their role is not limited to mining activities and includes the supply of food, tools and equipment and sex services that exposes them to sexually transmitted diseases and HIV/AIDS.^{cii} Marc Anselme kanga also reveals high levels of prostitution, overexploitation of women, high prevalence of HIV around mining sites and low farm activities.^{ciii}

d. Gender in Miners

In Cameroon, an average of 30% of ‘ASM’ are women who mined diamonds or gold independently.^{civ} Women do almost all the tasks their husbands do, especially washing gravel “we noticed that added to the role the mother plays at the mine, she still has to take care of the younger ones in her responsibility.”^{cv} Where less than 10% of mining employees are female, there are many challenges facing women in ‘ASM’. Digging, crushing ore, and other extraction tasks are exhausting dangerous work, and yet as the primary livelihood for millions of women, they continue to go to mining sites even while pregnant and nursing young children. Women have reduced access to mining resources, including land, finance, and tools. Women in mining networks have slowly grown over the years, but much remains to support them. Empowering women, building solidarity, and supporting national associations will ensure that rights are respected and women gain better opportunities and access to improving livelihoods.

e. Health and Occupational Safety

Even for workers employed and trained by formal large-scale companies mining is a dangerous job. It becomes even more deadly with ‘ASM’, as miners work with basic tools and little to no safety equipment.^{cvi} ‘ASM’ present a wide range of physical hazards to workers including the use of hazardous materials (ex: mercury, cyanide), poorly constructed pits/shafts/tunnels prone to collapses/landslides/flooding/lack of ventilation, poor waste management leading to water contamination and diseases, lack of personal protective equipment (PPE) or training in proper use leading to silicosis and other health risks, impacts related to dust/noise/exhaustive labour, lack of potable water/latrines/sanitation facilities leading to gastrointestinal and other diseases, and physical risks from inappropriate use and maintenance of mechanical equipment. It is noticed that a series of health problems, notably body pains which is associated with the difficult nature, hard work and long hours which mining requires. Skin diseases are very common among miners due to long hours spent in muddy water. Waterborne diseases are also a problem because of lack of portable drinking water in the mines. The open mines left behind by mining carrying stagnant water, which are favorable breeding grounds for mosquitoes. Malaria caused by these mosquitoes is one of the diseases which affects artisanal miners. Improving monitoring and reporting on occupational health and safety is an important first step, as well as training on standards and skills.^{cvii}

Essentially artisanal mining is generally characterised by a lack of occupational safety. About 49.5% of miners cited wounds from the sharp tools such as cutlasses, and spades that they used. Other accidents included various dangers from failing trees and branches and soil collapse with the risk of covering them in soil. Miners know that mining is a risky activity and some miners said they have witnessed deadly accidents in the past. Exposure to wild animal attack is also a risk that miners reported they face every day. They do not take particular safety measures but rely on God's guidance for protection. The majority (92.5%) of miners do not take any particular safety majors to avoid accidents. A total of 7.5% take minor precaution at work such as wearing gloves and being cautious at work. In case the miners fall sick most of them do not go even to the nearest health Centre as they practice self. ^{cviii}

CONCLUSION

This paper has described some salient issues of artisanal and small-scale mining in the East region of Cameroon as can be exemplified from the aforementioned analysis.

Small-scale mines differ from traditional artisanal mines operated by local communities. Expatriates working at small-scale mines cooperate closely with artisanal miners, and mine sites are located alongside areas secured through artisanal permits. Regulatory and legislative loopholes in the mining sector, poor governance and the potential for large profits are fuelling expansion of this new business model.

It is discovered that the populations of Cameroonian workers were poorly integrated into the local Cameroonian communities. They live enclaves, bring in supplies from outside and spend very little money on local produce. There is little contract between expatriates and local people. This contributes to a situation where misunderstandings can arise and also limit the likelihood that mining activities will make significant contributions to local economies. ^{cvix}

However, the sector provides effective poverty relief by providing jobs, ensuring profits for small producers, and transferring wealth from the rich to poor. Grossomodo, artisanal and small-scale mining sector must be recognised as a significant generator of rural livelihoods that have the potential to alleviate poverty and be a tool for sustainable development.

RECOMMENDATIONS

Our first recommendation should be that Government should create enabling environment by putting in place legislations and regulatory frameworks in which small-scale mining activities occur. Governments need to create objective, consistent, transparent and non-discriminatory regulatory mechanism, which offer easy access to mining title and legal production channels. Decentralising the control of the sector was identified as a way to ensure that the design and implementation reflects the realities of the sector.

The second point is that of financing ‘ASM’. The issue of financing ‘ASM’ operations and making credit available for production improvements is most often identified by miners as a major problem. As most rotation funds have not worked well, with CAPAM, so we believe that the financing of ‘ASM’ projects needs to be tailor-made and consider non-traditional forms of financing, such as own capital resource, joint ventures, risk capital, equity partnerships and leasing of equipment.

The third issue that must we lay much emphases on here is that ‘ASM’ should be formalised. This is to say, in order to maximize the positive impact of ‘ASM’, it must be formalised, responsible and well governed. This is by facilitating procedures for obtaining artisanal mining permits. This will lead to a formalisation of the sector and regularise many miners. The majority of miners in the East region do not have legal title, and oftentimes the regulatory frameworks for national mining policy work to exclude or restrict ‘ASM’ practices. Corruption at this point is overwhelming.

The fourth recommendation we wish to put forward is that of data sharing. Data sharing is a serious problem in ‘ASM’ in the East region of Cameroon. Data on ‘ASM’ is woefully inadequate, which limits an understanding of the sector, and appropriate policy measures. Collaborative and transparent knowledge sharing, data collection and analysis is required. Governments, research and training institutions, the private sector, consultants, and civil society should contribute to open databases, integrate ‘ASM’ into national census and surveys, and provide for improved policy and transparency.^{1cx}

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- xxvii. It should be noted that the terms and conditions for granting and renewing small-scale mining permits shall be laid down by regulation.
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