

POLE INSTITUTE
INSTITUT INTERCULTUREL DANS LA REGION DES GRANDS LACS

THE COLTAN PHENOMENON:

**How a rare mineral has changed the life of the population
of war-torn North Kivu province in the East of the
Democratic Republic of Congo**

Co-Research: POLE INSTITUTE/CREDAP

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Preface

The initiative to this study came from the Congo itself. In December 2000, at the height of the coltan boom in the Congo, the intercultural research institute "Pole Institute" in North Kivu together with the "Comité de Réflexion sur le Développement Agro Pastoral en Province du Nord Kivu" (CREDAP), a platform of NGO activists and technicians working in rural areas in the province, decided to look into the issue of coltan mining with the explicit aim of collecting and publicising the opinions of the local population concerned. They completed the research by looking more closely into the international dimension.

The research was directed by Aloys Tegera, manager of Pole Institute and a member of CREDAP in collaboration with Dr Mikolo Sofía, member of Pole Institute and CREDAP, and Dominic Johnson, a German-British journalist with the German daily Die Tageszeitung (taz) who also translated and edited the English version. They had support from the German Protestant Development Services (EED).

The fieldwork was undertaken in several stages, from December 2000 through to August 2001. It has thus covered a period from the height of the coltan boom to a time of falling prices and fundamental changes in the structure of coltan trading. The traditionally agricultural Masisi area and the area around the coltan mines of Numbi were the main focus of our fieldwork. Interview partners were coltan miners, traditional chiefs, influential persons among cattle-herders, missionaries, school directors, farmers and cattle-herders and women. As far as possible, our research took the involvement of armed groups in artisanal coltan mining into account as well as the use of sales revenues in prolonging the crisis and the war in the DRC.

The first of the resulting studies was published in French in February 2001 and has become a reference text for all who work on the matter. A second complementary text in French, incorporating additional fieldwork, research and recommendations, is being released now. This English text compiles the two into one comprehensive study.

Our interviews with local people bring a unique local perspective onto the issues of coltan mining and trading, which is usually not taken into account in the international debate on the exploitation of the natural resources of the Congo. At the same time, the study aims to inform the local people on the international dimensions of their situation. In this way, we hope to contribute to the empowerment of the Congolese population as active players and decision makers in the affairs of their country. Only the active involvement of the Congolese can lead to a break with the past experience of the Congo, whose resources have since colonial times always been exploited in an unaccountable manner from inside and outside the country. Pole Institute and CREDAP intend to continue exploring these avenues in order to provide the population concerned with a means of expressing their opinions, and to develop together with them specific proposals to improve their situation.

Aloys Tegera
Manager, Pole Institute
Goma, January 2002

Introduction and Main Findings

The study found that:

- as crisis and war in North Kivu have severely hampered industrial mining, existing industrial mining concessions have been turned over to informal or artisanal mining, mainly of coltan. This phenomenon has led to a population exodus of all age groups with the aim of finding coltan;
- as a result, agricultural and pastoral activities are being abandoned in favour of coltan. There is a real danger of food insecurity in North Kivu if the agricultural populations continue to leave their fields in order to mine coltan or turn their fields into mines;
- young people, easily attracted by easy money, abandon school in favour of coltan mining. There is a risk that juvenile delinquency may develop, based on money and the AK-47;
- artisanal coltan mining does not offer security to those involved, who have no experience in the construction of underground galleries in order to protect them against regularly occurring landslides;
- the coltan export monopoly granted to the firm SOMIGL between November 2000 and April 2001 created conflicts, as miners felt cheated by price fixing contrary to the spirit of a liberal economy officially expounded by the RCD rebel movement which controls the region;
- unplanned coltan mining and export in a context of State collapse and prolonged crisis has been a source of wealth for a handful of businessmen working with old and new mineral trading networks in Eastern Congo, but it has also meant the emergence of a mafia economy organised around the rebel armies and their allies and the armed Mai-Mai groups.

Lobbying for a boycott or at least for a moratorium of coltan exports from the Congo has recently been presented as an easy solution to the problems associated with the international coltan trade. However, we think that if implemented this would only result in the concerned firms either continuing their activities, but in an even less transparent way, or simply moving to other locations to continue the coltan trade in the same or a similar way. The people of the Kivu would not gain, but would lose one of their very few remaining sources of income. The challenge is not to erase the Kivu from the coltan mining map, but to institute a fairer and less harmful way of mining and trading coltan.

The coltan trade is closely intertwined with the activities of all armed groups present in the area. No demobilisation, disarmament and reintegration programme can succeed without taking economic security into account. Proper regulation of mining and other trade is essential for disengagement and reconciliation programmes.

While the population of North Kivu ought to benefit from the coltan miracle in their province, food security must be assured and those involved in mining must be protected. North Kivu, rich in agricultural resources, must avoid the experiences of other parts of the Congo such as Kasai with diamonds and the Kilo-Moto region with gold. Therefore a

promotion fund for agriculture should be created.

COLTAN AND THE KIVU

1. What is coltan?

The following information is taken from material published by the Belgium-based Tantalum-Niobium Study Centre:

“Coltan is an abbreviation for colombite-tantalite, a mineral from which the precious metals Tantalum (Ta) and Colombium (Cb), also known as Niobium (Nb), are extracted.

Tantalum is a refractory metal that offers a valuable combination of properties. Tantalum and its alloys are midway between tungsten and molybdenum in density and melting points. Tantalum can be worked easily at room temperature. Its thermal conductivity is one-fourth that of molybdenum and its coefficient of expansion is one-third greater. Its elevated temperature strength is low compared with tungsten and molybdenum. Tantalum's corrosion resistance is unusually good in most commercial combinations of acids. Pure tantalum recrystallizes at approximately 2200°F (1204°C).

Tantalum has several unique properties that have made it essential to certain applications, making it well worth the high cost. It offers approximately the same corrosion resistance to most acids and caustics as glass. In addition, it can be fabricated by bending, roll forming, and welding with relative ease by personnel experienced with the metal. Tantalum's ductility and density have made it popular with the military for armour penetration. Its density and nuclear stability make it a valuable material for containers of radioactive elements.

Tantalum has gained wide acceptance for use in electronic components, chemical equipment, missile technology, and nuclear reactors. The electronics industry consumes the majority of tantalum produced (approximately 60%) for capacitors. Other industries concerned with corrosion, especially the chemical processing industry, are accounting for an increasingly large percentage of the market.

Tantalum can be used to fabricate valves for corrosive liquids and to manufacture heaters for acids and heat shields for rocket motors. It is also used as a component of ion implanters in the manufacture of semiconductors. Also, because tantalum does not have a low neutron absorption cross section, it is used for radiation shielding. Tantalum mill products are used in the fabrication of corrosion resistant process equipment including reaction vessels, columns, bayonet heaters, shell and tube heat exchangers, U-tubes, thermowells, spargers, rupture diaphragms, and orifices.”

The main attraction of tantalum recently has been in the construction of capacitors in mobile phones. For this reason, demand for the product has grown sharply in recent years, averaging around 10% per year since 1992. The main clients for tantalite – the ore from which tantalum is extracted in order to produce tantalum powder for use in capacitors and one of the two components of coltan - are the German firm H.C.Starck, a subsidiary of the Bayer group, and several US firms. More recently, the other component of coltan – niobium and its derivatives – has also found increased use in similar applications, increasing the potential value of coltan, whose price rose throughout the year 2000 to record levels. The substantial price falls of 2001 are explained by several factors: oversupply, the impending recession in the advanced technology and communications industries, and the continuing reduction in the size of tantalum capacitors meaning a reduction on the volume of tantalum required. Tantalite is classified as a strategic mineral by the US Pentagon, which for this reason owns extensive stockpiles of it. The main producer of tantalite is Australia, but the mineral is found in many countries, among them Brazil and Canada, but also African countries such as Namibia, Nigeria and Mozambique, and especially in the Great Lakes region. Small coltan deposits have been mined for some time in Rwanda, Burundi, Uganda and Zaire, where it is often – but not exclusively - found as a by-product of cassiterite in industrial tin mining. According to mining specialists, 80% of known tantalite reserves are found in the Democratic Republic of Congo, almost entirely in the Eastern part controlled by rebel movements allied to Rwanda and Uganda. As Africa as a whole supplies less than a fifth of world tantalum supplies, the growth potential is enormous.

2. Historical background to coltan mining in Eastern DRC

Until very recently, colombite-tantalite (coltan) was known only to a few specialists of mining in the Congo. The rare mineral is found at Punia, Kalima, Lugushwa and more recently Masisi. In Lubero zone, high-grade coltan is found (up to 40 per cent tantalum content) in Munguredjipa and Muhinga.

The structural characteristics of the coltan trade in North Kivu cannot be understood without a knowledge of the peculiar history of mining in the area, a history which is dominated by the story of the Belgian-Zairian firm Sominki (Société Minière du Kivu). Formed in 1976 as the result of a merger between several Belgian mining firms whose origins go back to a major concession granted to the Belgian Baron Empain by the Belgian King Leopold II in 1902, Sominki traditionally owned most of the extensive mining concessions in Eastern Congo, with gold mining constituting four fifths of its activities, cassiterite (an ore from which tin is extracted) and coltan (which is often found in cassiterite deposits) the rest. The crisis of the Zairian economy in the 80s incited Sominki to close many of its industrial mining operations and allow individuals to engage in artisanal mining in its concessions. This is the origin of the phenomenon of artisanal mining which characterises coltan exploitation today. Some of Sominki's former Belgian shareholders later formed the firm Sogem, which became one of the principal buyers of coltan from Eastern DRC.

As long as Sominki retained effective control over its concessions, artisanal miners operated in a controlled environment. But this changed after the withdrawal of Belgian capital from Sominki in 1995 and the subsequent collapse of the state in Eastern Zaire, later Congo.

In 1995 Sominki's Belgian shareholders – mainly offshore subsidiaries of the groups Empain and Schneider - decided to sell their 72 % of Sominki to the US firm Cluff Mining and the Canadian Banro group (the other 28% belonged to the then government of Zaire). In 1996, Banro bought Cluff's shares and became the majority shareholder with 72%. To deal with this, Banro on 23 October 1996 created a Congolese subsidiary Sakima (Société Aurifère de Kivu et Maniema). In this new structure, the Zairian state's share was reduced to 7% and Sakima took 93%. This was agreed on 13 February 1997, when Sakima signed a new mining convention with the government of Zaire. On 29 March, Sominki was formally liquidated at an extraordinary general meeting – its mines in the East of the country then being already under the control of the AFDL rebellion under Laurent-Désiré Kabila. On 6 May, eleven days before the entry of the Kabila rebellion into Kinshasa, the Zairian prime minister Likulia Bolongo officially approved the convention.

On 17 May 1997 Kabila toppled Mobutu and proclaimed himself president of the newly formed Democratic Republic of Congo. At first he continued to work with Banro and confirmed the Sominki/Sakima arrangement on 17 June. However, he tried to change the terms of co-operation with Banro. Sominki's coltan reserves were stated as 2051 tons. The government demanded capital investments of 340 million dollars to restart industrial mining in the former Sominki concessions – a sum which logically should come from Banro as the main shareholder. As the status of Sakima was thus called into question, Banro proceeded on 3 October 1997 to create another subsidiary, RMA (Ressources Minières Africaines) to mine cassiterite and coltan. The legality of this was contested by the government.

On 29 July 1998, Kabila annulled the Banro deal entirely, accusing Banro of having signed the relevant contract with the Mobutu regime during a time of uncertainty, and created a new mining company Somico (Société Minière du Congo), presented as a successor to the defunct Sominki and directed by, according to Banro, "certain Congolese personalities". Somico's designated director was named as Philemon Luhwindja, the traditional ruler of Luhwindja territory in South Kivu. Sakima's assets, including its office in Kinshasa, were seized by the Congolese government on behalf of Socimo on 31 July. On 2 August 1998, two days later, the second Congolese rebellion broke out, and the new rebel movement RCD in Eastern DRC had the support of the directors of Sakima and RMA, Alexis Thambwe and Victor Ngezayo. The RCD rebels quickly took control of most of Sominki's concessions except in some areas of Kivu, including that of Mwami Luhwindja, who with other traditional rulers fought the RCD and received armed support from the government side (he was later killed in a mysterious car crash in France in the year 2000).

The newly formed RCD requisitioned the assets of Sakima and RMA for its war effort, hoping to give them back to Banro. Apparently a stock of 312 tons of coltan and 190 tons of cassiterite were requisitioned – major spoils of war. According to Banro, 99 tons of cassiterite were also confiscated by the government side. One year later, in October 1999, the RCD rebellion handed Sakima and RMA over to Banro and in return demanded a monthly tax payment of 300.000 dollars. According to RMA director Ngezayo, the mines were ruined and had been systematically looted to the point of being no longer profitable in the short time, requiring major investment to make them productive in the long term.

In an abrupt about-turn, RCD on 2 June 2000 annulled the Sominki/Banro deal again which it had previously confirmed, imitating Kabila's action of two years earlier. The RCD's opinion was that the contract had been signed by the Mobutu government on its last legs and that its terms needed to be renegotiated. For the RCD, Sominki was an abandoned property. Sominki and RMA were invited to renegotiate the terms of a contract to acquire Sominki's mines, but this offer was also open to other investors. The firm Somest (Société Minière de l'Est) was created to exploit Sominki's mines, but it never took off. When it died, the RCD formed a provisional managing committee in August 2000 to manage Sominki's property.

The legal battle around the former Sominki is not yet over. After its expropriation by Kabila in July 1998, Banro took the Congolese government to arbitration in the US, and in February 1999 the firm seized a Somico cassiterite shipment in South Africa. While a South African court found in favour of Banro in June 1999, the US arbitration panel declined jurisdiction in September 2000. As a result, Banro filed a suit against the Kabila government in Washington on 16 January 2001 – as it happens, the day on which the Congolese president was

murdered. On 21 December 2001 Banro announced having reached an agreement with Laurent-Désiré Kabila's son and successor as president, Joseph Kabila, according to which the Congolese government now recognised Banro as the rightful owner through Sakima of the former Sominki mining concessions. However, these still lie outside government control.

Another legal tussle affecting the structure of mining in Kivu has concerned the smaller mining firm Somikivu. This was created in 1981 in a convention between the Government of Zaire and the German firm GfE Metalle und Materialien GmbH. Zaire held 20%, GfE 74 % and Sominki the rest. The firm's principal activity was the mining of pyrochlore, a form of niobium oxide with radioactive content used in the hardening of steel found in the North Kivu mine Luheshe. When mining in Luheshe stopped in 1993 following the outbreak of conflict between ethnic militias in the region, GfE ceded its share to its local German director Karl-Heinz Albers. In September 1997, four months after the fall of Mobutu, the new Kabila government promised Somikivu's concessions to the Austrian firm Edith Krall Investments, whose local representative at the time was Austria's honorary consul in Uganda. The actualisation of this deal was prevented by the outbreak of the second Congolese rebellion in August 1998, when Kabila lost control of Eastern DRC to the RCD rebels. The RCD ignored Kabila's promise and reconfirmed Albers as owner of Luheshe, which since then has restarted production under armed protection and according to RCD employs 250 personnel, making it one of the biggest private employers in Kivu.

Albers is one of the major players in the coltan sector of Kivu, making his support vital for the RCD's economy. He is on record as having said that he has been involved in coltan trading since 1993. A Congolese source says he was the biggest coltan exporter from Zaire before the fall of Mobutu 1997. Albers' coltan trade is handled by his firm Masingiro, founded in 1996, which is said to own the trading firm GBC, a major coltan exporter from Eastern DRC. According to Albers, his main clients are the German H.C.Starck, the American firm Cabot Performance Materials and the Chinese firm Ningxia. UN investigators found that in the year 2000 GBC accounted for 50% of coltan sales from Eastern DRC.

However, the conflicting ownership claims of Albers and Krall to Luheshe mine remain unresolved and are currently being investigated by lawyers with a view to legal proceedings.

3. Congo's rebels try to take control of the coltan boom

2000 was the year in which coltan mining in the Kivu really took off. Besides GBC, one of the main exporters was the Bukavu-based mineral trading firm Shenimed, belonging to the well-known businesswoman Aziza Gulamali Kulsum. She is also a major player in the Kivu economy. A mulatto woman from South Kivu, Mrs Gulamali not only owns Shenimed, but also the Uzabuco tobacco factory in Bukavu which sold Sportsman cigarettes. This firm was once based in Bujumbura and was transferred to Bukavu when the Burundian authorities closed its. According to several well-placed sources, during the height of the Burundi crisis Gulamali was suspected of arms smuggling for the Burundian FDD rebels of Leonard Nyangoma, with the complicity of the then Zairian generals Baramoto and Nzimbi, and also of gold smuggling.

The RCD at first did not benefit from the new export product coltan, whose trade was in the hands of well-established business people. On its own account, up to November 2000 the rebel movement only received monthly tax revenues of 20.000 dollars from coltan exports out of its territory, not enough to cover its severe financial difficulties which reached a climax in the later months of 2000.

On 20 November 2000 RCD reacted by creating a new mining firm: Somigl (Société Minière des Grands Lacs). Somigl was to deal mainly with artisanal coltan mining and received the export monopoly on all coltan produced in RCD territory, as set out in the interministerial decree 43 of 20 November 2000. This monopoly withdrew export rights from all 19 hitherto operating coltan trading firms in Eastern Congo.

Why was this monopoly granted? According to RCD mining minister Nestor Kiyimbi, the decision was motivated as follows:

- the quantity of coltan mined was underestimated. The rebel authorities demanded from each of the 19 registered traders a minimum declaration for tax purposes of five tons of coltan per month. Almost all buyers failed to reach this threshold in their declarations, except Mrs Gulamali's Shenimed. (However, according to the ministry's own inventory, the firm GBC managed 9.526 tons of coltan in March 2000, 9.087 in May 2000, 9.029 in September 2000 and 5.333 in October 2000. The firm Gaferege also managed 7.3585 in September 2000. So Shenimed was no exception).
- The quality of coltan mined was underestimated. The buyers declared an export value of eight dollars per kilo while the market price was fifteen.
- There was tax evasion. The minimum declaration required from each of the nineteen registered firms amounted to 95 tons a month in total. But hardly 40 tons were declared, while true exports reached 140 tons a month.

Somigl officially had four shareholders: Mrs Gulamali, who was the managing director, RCD and two unknown partners. RCD general secretary Azarias Ruberwa announced in a press conference on 25 November 2000 that

RCD held 75 % of Somigl, the other parties being Africom, Promeco and Cogecom. However the identity of the people behind these firms remains a mystery, apart from the name Gulamali which was revealed. The RCD was happy with the Somigl monopoly which provided it with lots of tax revenue: 1.124.970 dollars in December 2000 alone. This allowed the RCD authorities to produce a budget for the first time in their existence and pay their civil servants some salaries.

4. The turning point: Changing market conditions, new political pressures

The Somigl honeymoon did not last long. In fact, the new monopoly coincided with the end of the coltan price boom on the world markets which had persisted throughout the year 2000. On 5 December 2000, Alan Greenspan, Director of the US Federal Reserve, gave a widely noted speech on the risk of world recession. On 8 December, three days later, the US Government agency DLA (Defense Logistics Agency) released a large portion of the US government's strategic stock of columbite-tantalite onto the market, a portion whose value was quoted on the London Metal Exchange at 91.3 million dollars. From the end of December 2000 onwards, coltan prices in the world markets began to fall, bottoming out in October 2001 at less than a third of their peak. According to industry sources, electronic component orders declined significantly in January and February 2001 and flattened out in March. Tom Odle, President of the Tantalum-Niobium International Study Centre in Belgium, wrote in June 2001 that "the industry is dipping close to the 1998 recession levels".

Somigl's coltan exports, given as 112.49 tons in December 2000, fell in each subsequent month, to 97.6 tons in January according to RCD, to 27 tons in February and 19 tons in March according to the specialised journal "Africa Mining Intelligence". The reason for this lay however less in the world economic situation as in the reluctance by the established coltan traders of Kivu to accept the new structure. In the Somigl structure, all formerly registered traders were still allowed to buy coltan from miners – but they had to sell it to Somigl which alone had the export rights. With coltan buying prices between 30 and 60 dollars per kilo according to the mineral content, they could buy from miners at 30 dollars a kilo and sell to Somigl at 33 dollars a kilo – a minimal margin of three dollars a kilo.

Some coltan traders in Goma chose to freeze their stocks while waiting for better times, but continued to buy from their clients – an operation requiring major stocks of liquidity. Others simply closed down, especially in Bukavu, where Gulamali appeared to be very influential. Others appear to have continued exporting outside the official Somigl structures.

Not only traders were worried. In an interview, a person who used to be close to the Hutu militias of Ngungu and Numbi said that the Somigl monopoly was bad for the people because former Hutu combatants had turned to coltan mining, an activity with assured earnings which stopped them from taking up arms again. He was worried about the impact of the Somigl monopoly on the small miners, many of whom were former Hutu fighters. Competition between buyers assured them of quick sales and gave them room for price negotiations, which would not exist if Somigl dictated the rules.

However, coltan trading in Kivu remained extraordinarily vibrant. Part of Kavumu airport in South Kivu was occupied by small planes which flew several times a day towards the coltan-rich districts of Walikale and Mwenga in the interior, inaccessible by road. The multiplier effect of coltan earnings in South Kivu was visible in two fields: The construction sector boomed and Bukavu's Bralima brewery worked to full capacity. In North Kivu, parts of Masisi district turned into a giant prospecting area. Many miners came to Goma to sell their produce, and Goma expanded rapidly.

Meanwhile, parallel to the fall in coltan prices on the world markets, a large-scale international lobby campaign began against the purchase of coltan from Eastern DRC, qualified as a motor of war in the Congo crisis.

Originally organised as a response to critical press reports, Belgian NGOs campaigned under the slogan "No Blood On My Mobile" (Pas de sang sur mon portable) and German groups criticised the activities of the Bayer group. This campaign was reinforced by the growing sympathy of the Belgian and German governments, as well as that of France, for the new Kinshasa government of Joseph Kabila which took office in January 2001. At the same time, a UN team was busy gathering evidence about the illegal exploitation of the Congo's natural resources, including coltan exports from Eastern Congo through Rwanda and Uganda.

The UN report on the illegal exploitation of the natural resources of the DRC was published on 12 April 2001, several weeks after its completion, publication being delayed because of objections against some findings by several influential countries cited unfavourably in the report, such as Germany. It seriously criticised Uganda and Rwanda who were accused of systematically looting the resources of the Congo, the security argument justifying their presence in the Congo being considered as pure bluff. The allegations contained in this report criticised certain civil and military personalities from Uganda and Rwanda and were rejected completely by the two countries. The report was criticised especially because it said little on the looting of resources in the zone of the Congo controlled by the Kinshasa government and its Zimbabwean, Angolan and Namibian allies.

An additional report on the exploitation of Congo's resources, covering mainly the government zone, was commissioned by the UN security council on 3 May 2001 and its results were published on 10 November 2001.

Like Uganda and Rwanda before it, Zimbabwe rejected completely all allegations against it. According to Zimbabwe's information minister Jonathan Moyo the report was not equitable and ignored that the Zimbabwean army was an invited force; the experts were said to have succumbed to British pressure. The Kinshasa government's information minister Kikaya Bin Karubi also rejected the accusations against the invited forces completely and said that mining and trading accords with these invited forces were legitimate. Following the publication of the second report, the UN Security Council renewed the mandate of the Investigation Panel and called for follow-up studies.

In an international context of falling coltan prices and international lobby campaigns denouncing the connection between coltan mining in Eastern Congo and the war in Congo, Somigl could not last long. The firm's exports diminished continuously and Somigl was unable to pay its monthly tax of one million dollars to RCD as promised, except in its first month of operations, December 2000. On 5 April 2001 – coincidentally while Congo's president Joseph Kabila was visiting Germany, the main purchaser of Congolese coltan – the RCD revoked Somigl's monopoly and dissolved the company, liberalising coltan trading again. The decree fixed the annual licence fee for commercialisation and export of coltan at 40.000 dollars. The export tax was fixed at six dollars per kilo of coltan, dropping to four dollars for export quantities exceeding 15 tons.

5. The present: Selling coltan in a context of uncertainty

Under the new regime only three of the nineteen coltan trading posts which used to be registered in the RCD controlled region have survived: Mrs Gulamali's Shenimed, Grands Lacs Metal and Gaferege. Only they have been able not only to pay the new export licences, but also to fulfil the minimum export requirements, which were set at 15 tons per month in April and have since been reduced to 10 tons. The buying price at the trading posts is now 0.65 dollars per percentage of tantalum content. For coltan containing 40% tantalum, the price per kilo is therefore 40×0.65 dollars: 26 dollars.

However it may be asked how a trading firm can at the same time pay its taxes and sell for profit in an international market in which the coltan price continues to fall. In a meeting on 27 November 2001, the provincial mining director asked how the trading firm MUUSAD could have bought a second export licence for 40.000 dollars without any exports being officially registered in its name. Actually several trading firms now prefer to buy mining areas known as "mining squares" and recruit miners who receive three to five dollars per kilo on site. In this way they bypass middlemen and also make it more difficult to track the quantities of coltan at their disposal. In an unfavourable market context, mafia practices tend to render the coltan trade ever more obscure.

The former manager of Somigl, Gervais Ruboneka, now heads the Office for the Protection of Public Revenues (OPRP), an organ set up by the present head of territorial administration in the RCD, Bizima Karaha. The OPRP denies duplicating the work of the customs service OFIDA and affirms its main objective to be vigilance against misappropriation of public funds – this would be a first in the history of Congolese public institutions. The real reason behind its existence seems to be the increasing financial problems of the RCD following the renewed decline in coltan revenues. The movement is under ever greater pressure to find funding, as is evidenced by a decision of 21 November 2001 to suspend the existing conventions regulating state enterprises and allowing RCD to have free access to the resources of such enterprises for a duration of 30 days. This suspension was officially motivated by the wish to "better share penury". However, the customs services OFIDA, DGC and DRGAD, where copious financial resources might be found, are exempted.

Having said this, 2001 was not a bad year for everybody. According to the Rwandan bi-weekly "New Times" in December, Rwanda earned 44 million dollars from coltan exports in the second half of the year.

The lobby denouncing the link between coltan mining and exports from Eastern DRC and the war in Congo also achieved some significant results, especially:

- the creation of a ministerial working group in Belgium by the government, charged with analysing the conclusions of the UN report on the looting of the Congo and the financing of the war;
- the creation of a parliamentary inquiry by the Belgian Senate on the issue;
- the suspension of coltan and other mineral transports from the Great Lakes region by Sabena and Swissair. At the end of September 2001, Swiss Air was liquidated and at the beginning of November Sabena went bankrupt. The two companies no longer operate on the line Brussels-Kigali. Did they plan an honourable exit from the Great Lakes region?
- the passing of a resolution by the US House of Representatives in September 2001 suspending coltan imports from the DRC. As a result, two US firms, Kemet and Cabot, annulled their coltan orders from the Great Lakes.

This campaign embarrassed companies in Europe who are linked to coltan trading in Europe. In Germany, H.C.Starck refused for months to confirm that it buys Congolese coltan and only relented in October 2001 following the publication of a book in which industry sources were quoted as confirming the firm as buyer of 80% of Congo's coltan. In Belgium, the firms Cogecom, Sogem and Tradement have also denied any links with the Congolese rebels and their allies in the Eastern Congo. In the absence of transparent regulation in a context

of war and State collapse, it is difficult to separate the two, especially as Sogem has a long history of mineral trading in Eastern Congo which predates the coltan boom. It is said by the UN to have links to the trading firms MDM and Savanna in Bukavu. The export statistics available in Goma for January to August 2001 show that these two firms have continued to export cassiterite to Belgium - a large proportion of world tantalite production is drawn from cassiterite left-overs.

On 7 December, the US-based African Church Information Service finally reported that Sogem has stopped trading Congolese coltan, together with four other German, Belgian and American firms, among them Cabot. According to news reports, coltan trading firms are increasingly looking at coltan sources in other African country. Cabot is aiming through its wholly owned Canadian subsidiary Tantalum Mining Corporation towards reopening the abandoned Morrua coltan mine in Mozambique, which was a major world source of tantalite up to the 1950s. From parts of Nigeria a population exodus to newly opened coltan mines is reported similar to that in the Kivu, and a court the Nigeria's largest city Lagos is currently hearing a case against a mineral trading company for exporting 2050 kilograms of coltan from Nigeria without paying export duties to the Nigerian Federal government. For purposes of diversification, the veteran German coltan trader Karl-Heinz Albers has formed a holding company called Holding KHA International, encompassing fifteen firms including his own creation Masingiro.

Meanwhile the uncertainty about the structure of the mining concessions in Kivu continues to paralyse the industry. Officially, a provisional management committee for the property of Sominki had been created in August 2000 under the direction of Eugène Muhima (dismissed since but not yet replaced). During the first quarter of 2001, a company called MEDIVAL proposed a partnership to the provisional committee. MEDIVAL was to exploit the Sominki concessions and in return offered to pay 20 % export duties. During August 2001, another company called Congo Holding Development Company proposed to take over practically all Sominki's concessions on a purely legal basis. According to a well-placed source, 42 of Sominki's 47 concession titles had expired between 1998 and 2000 – the time when the RCD rebellion began and cancelled the earlier Sominki/Banro deal, calling Sominki's property abandoned property. So the 42 expired titles would have automatically reverted to the State, meaning in this case the RCD authorities who then gave them to the newly formed Congo Holding Development Company. Apparently three of the 42 titles did not interest the new company and were passed on to MEDIVAL.

Thus of the 47 Sominki concessions 39 now belong to the Congo Holding Development Company and eight to MEDIVAL. It is to be remembered that at the same time Sominki's official successor, the Canadian Banro group, has reached agreement with the Congolese government on the return of Sominki's concessions to its ownership.

The Congo Holding Development is directed by Félicien Rucaca, president, and Gertrude Kitembo, former governor of Maniema province, as vice-president. The shareholders behind Congo Holding Development Company and MEDIVAL as well as the terms of their partnership contract with RCD remain shrouded in secret. Apparently Congo Holding Development Company is not only interested in mines but also markets the produce of Kabimba cement factory belonging to Ciment Lac in Kalemie. According to unconfirmed sources, a South African firm belonging to the Kramer group is the main shareholder in Congo Holding Development Company. Uncertainty as to the ownership of coltan mines has a direct effect on the ground. One example: Two trading firms, MHI (Mwangacucu Hizi International) and WBC (Wide Business Company) are in conflict over the boundaries of their respective coltan mines, based on mining permits granted by the same RCD mining ministry. Apparently the director of MHI persuaded the ministry to grant him an industrial mining permit on his ancestral land. In fact the land in question mined by MHI covers only 20 square metres in the concession Mumba D2, shared by seven people who mine there together. When MHI received its industrial mining permit it obtained, according to the mineral laws, the rights to a "mining square" of at least five square kilometres. In this way MHI hoped to extend its industrial mining rights beyond the above-mentioned site and compensate the peasant landowners concerned directly, most of whom actually operate partnerships with other miners.

On 1 September 2001, the two farmers Bayose Senkoko and Sebuo Basharira were taken to court for having sold their mining rights to MHI without the consent of a third party to whom they had previously sold part of the same land. In October 2001, MHI entered into conflict with WBC which exploits a surface of 900.000 square metres in the concession Mumba D3, only 1200 metres away from the Mumba D2 concession of MHI. WBC had signed the contract for Mumba D3 on 16 March 2001 with the two peasant landowners Pierre Hitimana and Kabano Bazimaziki. MHI, now claiming rights to a surface of five square kilometres through its industrial mining permit, says that WBC acquired Mumba D3 illegally, as it extends into its own concession. It is now asking WBC to be moved elsewhere.

FIELDWORK

1. Interviews conducted 29.12.2000 to 3.1.2001

1.1 “We earn much more money”: Interview with three miners who wished to remain anonymous

Q: Since when have you been mining coltan?

A: Eight months (first miner), six months (second miner), three months (third miner)

Q: Where do you mine?

A: In the sites of Kinigi and Muho in Kibabi commune.

Q: How does coltan mining compare with agricultural activities?

A: We find coltan mining very profitable but very risky because of armed groups and jealous people. These are sometimes our friends who mine with us, but they denounce us to armed groups who come at night.

Q: Do you think coltan mining can resolve your everyday problems, especially food insecurity?

A: We agree that coltan mining cannot resolve our everyday difficulties or those around us in general, but we earn much more money now than before. (One of the miners is a schoolboy who has dropped out of school, the other a cattle raiser who also made roofs in Bukombo, the third a herdsman?) With our earnings we could live a better life if it wasn't for the general insecurity which affects everybody.

Q: Now that you are in coltan, what do you think of farming and cattle grazing?

A: We think that agricultural activities are a good thing, but we cannot see ourselves taking them up again in the short term because we earn much more money in coltan. However we are thinking of investing coltan money in agriculture and cattle once peace returns.

Q: Do you think you will find enough space for farming and cattle-raising with coltan mining going on?

A: We realise that farms and fertile soils have become unplanned mining grounds. We hope to organise space for farming and cattle later. However we fear that only women and children will do this work.

Q: Do you have your own mining concession?

A: No. The landowners or their delegates sell or rent out pieces of land for mining. A piece of land measuring one meter by six meters costs 500 dollars for an indefinite period. But we have to deal with many problems which discourage us. First you have to remove the water which gathers in the pit, then there is the risk of pits falling in or of landslides. And when we hear that there is a more profitable place, we abandon the plot we have rented and go elsewhere.

Q: To whom do you sell your produce?

A: Some of it we sell immediately in order to survive, some we sell to the traders of Goma. For lower-grade coltan, a “Tajiri” (plastic bottle on the local market) costs one dollar; for higher-grade, four dollars. The sale to the Goma traders takes place after the tantalum content of our coltan has been analysed.

Q: Are you usually satisfied with the results of this analysis?

A: No. We have no choice. The buyer who fixes the price also analyses our samples. There are crystals which we know are rich in tantalum, which improve the grade of our samples and thus the kilo price, but we have to pay the sampler up to 100 dollars extra to include these crystals in the sample.

Q: What problems do you encounter in your work?

A: Coltan mining is hard work. There is also the problem of armed groups who steal our produce, not to forget what we already said: landslides and collapsing pits.

1.2. “A high-risk activity”: Interview with Faustin Ntibategera, engineer and director of the NGO “Upaderi”

Q: What do you think of the coltan mining phenomenon?

A: Coltan mining is a new source of wealth for Masisi and Kalehe, taking the place of cattle. The large coltan mines are often found in former mining concessions which were used as grazing land. This wealth is a high-risk activity by itself because it is too desirable and thus a source of tension between communities and between individuals. It also makes miners proud and arrogant, like large cattle owners previously.

Q: So what future is there for agriculture in the province?

A: At the moment it is difficult to do without coltan mining in the province. It is a reality which has to be taken into account. Once security is assured, agriculture should be restarted or rehabilitated.

Q: What do you think of combining coltan mining with agriculture?

A: Coltan mining will come first. The miners earn more money with coltan and other activities seem to be subordinate to coltan.

Q: How can the two activities be integrated?

A: The mines must be managed responsibly, applying the mining code. The authorities and the public services must establish control and taxation mechanisms and encourage the reinvestment of coltan profits in farming and cattle grazing and also in other infrastructures like roads, health centres and schools.

Q: At the moment we are dealing with artisanal mining without legislation and still in development. How should this be managed?

A: First of all, the miners should be organised and given technical help to improve their mining skills.

Q: What are the problems connected with coltan mining?

A: There are landslides with injuries and deaths. Armed groups in the mines cause at least one death per week. There are also socio-cultural difficulties such as prostitution, polygamy and rape of young girls.

Q: What do you think of the areas as yet untouched by coltan mining?

A: There is an exodus of people towards the coltan mining areas. People need to be made aware of the consequences of abandoning agricultural activities and it should be considered how coltan miners can be obliged to work in agriculture at the same time.

Q: What do you think of the Bakajika Law in relation to this new phenomenon of coltan mining?

A: The law should be applied. Landowners or their managers sell mineral-rich land although the underground is supposed to belong to the State. There is another problem too: Most of these concessions are managed by intermediaries (managers) who become rich through coltan mining and do not want the real owners, who are absent, to return. If the authorities do not get involved quickly we risk new land conflicts between individuals or even between communities, especially as the absentee landowners are mostly Tutsi and Hutu and the managers are Hunde. There is a danger that a conflict between landowners and managers can turn into a confrontation between ethnic groups. To limit the damage caused by artisanal coltan mining, prospection zones must have proper boundaries so that farmers stop uprooting their crops, something that some traditional chiefs do or allow in their chiefdoms. The lack of support for agricultural activities sometimes pushes people towards this kind of unplanned prospection.

Q: What is the food situation in the artisanal coltan mining areas?

A: At the moment, food in the traditional agricultural region of Kibabi is more expensive than in the city of Goma. A sack of potatoes costs nine dollars in Goma and eleven dollars in Kibabi. People buy beans in Goma to resell them in the mines of Masisi, a completely new phenomenon contrary to the usual trade routes.

1.3 “The whole population is involved”: Interview with the communal leader of Bashali Mokoto, Roger Bashali

Q: What do you think of coltan mining?

A: Coltan mining is a good thing because it is a source of income. But when this source is too plentiful it can only cause problems, even if mining is difficult. The whole population is involved in it. In Masisi, Kalehe and Rutshuru zones this mineral can cause new ethnic conflicts while the old ones remain unresolved. The former source of conflict, pastoral land, can now be replaced by coltan. The authorities should regulate coltan mining while taking the old problems into account. Normally people do not cultivate the soil where mining takes place, so there are boundary problems.

Q: What future is there for agriculture in the province?

A: People prefer what is easy. Coltan mining brings more money. Agricultural activities are going to suffer and life will become more expensive.

Q: What do you think of coexistence between coltan mining and agriculture?

A: Without regulation of coltan mining by the authorities, agricultural activities are bound to disappear unless they are protected by the State.

Q: What is the food situation in your commune?

A: Up to now there has not been much change because coltan mining is still at the prospection stage.

Q: What solution do you propose?

A: Artisanal mining must be regulated and above all there must be a minimum age for the employment of children in the mines. Private property rights must also be respected. Adequate measures must be taken before major difficulties arise. There is especially a risk of rising HIV/Aids infection rates. Also the financial gains from coltan must be shared equitably in order to avoid dissatisfaction which often leads to armed confrontation between populations, especially by investing in community interests.

1.4 “Our miners are shot”: Interview with the President of the Bushenge/Hunde mutual aid group, Bernard Luanda

Q: What do you think of the coltan phenomenon?

A: At the moment it is a high-risk job especially if you are not a Hutu or a Tutsi. Our young Hunde miners are shot at point-blank range. In the mines, when people talk of armed groups they are mainly Interahamwe who systematically kill the Hunde but leave out the Hutu after they have robbed them. The young Hunde who manage to escape from the Interahamwe are then victims of the Tutsi army on the road. We hope that the authorities will protect our brothers. If not, many more problems will arise because there is already tension here and there.

1.5 “Negative consequences”: Interview with the administrator of Walikale, Sylvain Mutumbi Munyanga

Q: What do you think of the coltan phenomenon?

A. Coltan mining is a phenomenon allowing large flows of money in the territory, but this has negative consequences like falling school enrolment rates (for example Walikale ISP with six departments has only 34 students) and rising prices for basic necessities. You don't see coltan money being invested for example in improving the habitat of the miners.

1.6 “Our husbands go away, our children suffer”: Interview with two housewives who wished to remain anonymous

Q: What do you think of the coltan phenomenon?

A: Coltan mining is very profitable, but only the husbands profit from it. Once they have the money, they go away and look for other women in Goma for whom they even buy houses while our own children suffer and don't go to school.

Q: Now that your husbands have left you, what do you think of agricultural activities?

A: We continue to grow crops. That helps us to feed our children unless insecurity forces us to leave our fields and villages. We would like to raise animals, but we have no money and are frightened of being robbed.

Q: What future is there when agriculture is left to women and old people?

A: We will fight for our survival or we will suffer with our children, because the young boys and our husbands are only concerned with looking for coltan. That has led to rising prices for certain foodstuffs. We would like the authorities to help us with agricultural inputs and seeds and guarantee our security without which we cannot do anything.

1.7 “Rising violence”: Interview with coltan trader Bitota

I am struck by the rise in food prices in the coltan mining zones. Mining areas become centres of consumption for food and other products from villages or regions not yet touched by coltan and even from the city of Goma. The problem is that some coltan mines in Masisi are controlled by Mai-Mai and Rwandan Interahamwe armed groups. The latter have apparently even set up a taxation system for coltan miners, for example in the villages Luberiki, Ntoto, Mitimigi and Bogoyi in Walikale district. The coltan produced by the Interahamwe is sold in Goma by their delegates.

I want to draw your attention to environmental damage. Whole hills are destroyed and some waterways are deviated to allow miners a free mining area, leaving former riverbeds in a lamentable state.

There is rising violence among miners who for one reason or another do not hesitate to settle their scores with cruelty. Easy money also leads to juvenile delinquency and prostitution with the risk of spreading the Aids virus.

2. Fieldwork in Matanda, Buhunde commune from 30 January to 1 February 2001

2.1 “A passing phenomenon”: Interview with Matanda's Chief, Safari Lupfutso

Q: Is the coltan phenomenon present here?

A: Yes, Matanda is one of the places where there is a lot of mining. Coltan is called Mangano here. Mangano is also the name given to miners.

Q: What do you think of this phenomenon?

A: It is a passing phenomenon, because when they have finished the miners will be unhappy and will turn to theft, rape and murder. They will not want to go back to farming. They don't really care for that. As they have already made a lot of money, they will not be content with a normal and ordinary life. They will either steal or kill to make more money. Until then, coltan money is used for drink, women and electric goods.

Q: What solution do you propose to stop agriculture from disappearing?

A: I have already called the miners to several meetings but they don't want to come. I wanted to set up a committee of wise men to teach them to save some of their income and invest the rest in public works like schools, roads, health centres etc. The idea was that we shouldn't one day regret having mined coltan. As it is an activity which is condemned to disappear, the savings and public investment at least will stay. Above all it is important to invest in agricultural activities, even through middlemen. Because today only women till the fields and very few men.

Q: What are the problems connected to coltan mining here?

A: Children and some teachers drop out of school to go and mine coltan. There are many landslides. Recently 20 people were buried in a landslide around Luwowo, among them seven soldiers. There is also environmental destruction: Waterways are diverted, grazing land is destroyed because of unplanned prospecting. Most foodstuffs are sold in the coltan mines and no longer in the traditional markets. There are also attacks by armed groups who attack not only the miners but also the ordinary people.

Q: Is there a problem between landowners and managers connected with coltan mining?

A: As far as I am aware there is a sort of arrangement between the landowners and the managers. Up to now I have not noticed any conflict. Before mining or a handover of land can begin, the miners usually go to see the owner to ask permission. The handover or the sale of a piece of land is done according to the tantalum content of samples taken and analysed. A plot of six by three meters is worth between 300 and 1500 dollars.

Q: What zones are dangerous for mining?

A: Kibabi and Katoyi are Interahamwe strongholds. Nobody has access to these zones, except if they are complicit with them and sell on their behalf. There is even talk of a diamond mine in these zones but no independent source has yet verified this rumour.

Q: What positive aspects do you see in coltan mining?

A: Coltan has at least solved the unemployment problem. That has significantly reduced theft. Also many young fighters have turned into coltan miners. That also reduces their number and that of murders. Having said this, there is more money and so the price of foodstuffs has risen.

Q: What are the favourite sites here?

A: Mainly Luwowo, Sitba, Mishavu and Koy.

Q: How is coltan sold in these sites?

A: I don't know how the miners sell their produce; perhaps according to its content. But I think the traders who sell to the trading firms in Goma and elsewhere make a lot of money.

Q: Your last word?

A: The State should organise the coltan mining sector and raise taxes to relaunch other sectors like agriculture, cattle-raising etc.

2.2 “Rape, drugs and alcohol”: Interview with the priest of Matanda, Emmanuel Mulindwa

Q: Do you have coltan mining in your parish?

A: Yes, all the young people of the parish are heavily involved in coltan mining.

Q: What do you think of this phenomenon?

A: The trading posts of Goma should not be the only ones who profit from coltan mining. Especially as among the population only a few people earn money and the little profit they make invested in drink and women.

Q: What are the main problems linked to coltan mining?

A: The young people who do this drop out of school, and even some teachers leave school. There is moral depravity in the mines: No morals, no difference between the sexes in this activity where you find men and women working naked. Prostitution is booming in these immoral mines, couples are formed just like that. There is also rape of children under 16. There is drug and alcohol abuse even among the children. There are also child marriages. Agriculture is abandoned and left to the women. There are landslides, grazing land and fields are destroyed. Drugged fighters are dangerous.

Q: What positive aspects do you see in coltan mining?

A: I don't see any positive aspects because it actually benefits foreigners who have the sales monopoly.

Q: What solutions do you propose?

A: The State should build a coltan processing plant here in Matanda. That would allow the production of this area to be centralised here. Otherwise it will only benefit foreigners.

2.3 “Many will not see their dream come true”: Interview with Christine Kizimana, leader of a local NGO

Q: What do you think of the coltan phenomenon?

A: Coltan mining, which here is called “Mangano”, is an unprecedented source of income for many men and women, so that entire households come to live in the mines and keep their children out of school. People think that coltan is the solution to their problems, but soon we will be surprised to see our markets empty. Only women do farming. The problem is that the living conditions of the miners have not improved. Some do not even have anything to sleep on, their roofs are always broken but they dream of making lots of money one day to buy everything. However with banditism and landslides many will not see their dream come true. This rush towards coltan mining has already provoked rising food prices. It is time for the people to go back to agricultural activities.

Q: What is the situation of women in this phenomenon?

A: Women are unhappier than before because husbands are abandoning their wives and children in favour of polygamy and drink.

Q: What are the problems linked to coltan mining?

A: Rapes of young girls have increased, food prices have risen, agricultural activities are abandoned, the best produce is no longer sold in the markets but in the mines.

Q: Do you see positive aspects in coltan mining?

A: The most intelligent people have bought houses in Goma and their families are safely installed. But most of the miners are drunkards, prostitutes, drug addicts with no future once mining has finished.

Q: What solutions do you propose?

A: The State should help to prevent the abandonment of agriculture to allow the population to survive and have food security. There should also be an awareness programme to fight drugs and the spread of the HIV-Aids virus. Also miners should be encouraged to invest their profit in other aspects of the life of the people.

2.4 “Children drop out of school”: Interview with Alphonse Batibwira, teacher in Matanda

Q: How does coltan mining affect teaching here?

A: Negatively. We are witnessing the emptying of schools. More than 30 % of our children drop out of school to mine coltan. Teachers also leave school to mine coltan. In the schools of Mishavu and Kibabi five to ten per cent of teachers have left.

Q: Why?

A: They earn easy money. There are especially many drop-outs in schools where pupils cannot pay the fees. They prefer to join their older brothers in the coltan mines.

Q: How do these children live in the coltan mines?

A: Some give themselves up to the evils of the mines: under-age debauchery, drug-taking, drunkenness. With the dollars they earn they ignore their parents and especially their teachers. The worst is that they manage to incite other children who stayed at school to follow them.

Q: What solutions do you propose?

A: The teachers should be paid by the State or their institutions, otherwise they have to live off the pupils' fees and most of them don't manage. That makes them leave school.

2.5 “We see no future”: Interview with Nzakuza and Ndagije, miners in Luwovo and Mishavu

Q: How long have you been mining coltan?

A: We started looking for coltan almost eight months ago.

Q: How do you find coltan mining?

A: It is hard work which benefits our employers. Actually we are recruited by someone who has bought a piece of land and pays us according to our efforts after selling in the trading posts of Goma.

Q: Are you satisfied with your pay?

A: We have no choice. Only the employer knows the sale price. Often he pays us a ridiculous wage.

Q: Why do you continue with this activity?

A: We prefer to work in the mines rather than staying in our villages and doing nothing.

Q: Can't you farm in the village?

A: At the moment our wives do the farming to feed the family. That is fortunate, because the money we make in the mines is insufficient to provide for our families.

Q: Do you think that the women can farm enough alone to provide for the population?

A: No. At the moment food is very expensive. Even in the mines we pay two or three times more, so often we return to the village with no money because the work is hard and we have to spend all we make in order to eat enough to keep going.

Q: What future is there for you in this activity?

A: For the moment we see no future. We accept to mine coltan so that we don't lack soap. We hope that one day we will find a big diamond in Kibabi or Katoyi. Then we can stop this and live differently with the money we have made by investing it in agriculture and cattle.

Q: What difficulties do you encounter in the mines?

A: Landslides cause many victims. Often we have to dig up to six metres deep on hillsides and normally up to three metres in the valleys. Sometimes soldiers take our produce on the road. Often our employers cheat us on the sales price and give us hardly anything.

2.6 “We have to earn money”: Interview with the former schoolchildren Halera (16) and Safari (17)

Q: Why have you dropped out of school?

A: Our parents couldn't pay the fees any more, we were sick of being sent home all the time and so we left. Now we live in the mines where we get work as miners.

Q: How do you find this work?

A: It is hard work but we have no choice because we have to earn money. Sometimes we earn 100 dollars, more than our parents ever earned. We buy radios and clothes and God willing we will be able to marry in two years, long enough to save something.

Q: Do you still have brothers and sisters at school?

A (Safari): Yes. I have a brother at school and I pay his fees. I wouldn't like him to come here and suffer in the mines because he is still too young for this kind of work.

Q: What advice would you give to other young people?

A: Those whose parents are unable to pay their school fees can come and join us. After all you don't only earn a

living with studies. Look at some of the traders who never went to school; they are better off than the teachers who studied.

Q: How long are you going to do this work?

A: For the moment, coltan mining is the only work which is well paid. We expect to stay here as long as there is coltan. And one day we hope to find a big stone full of tantalum and we will earn lots of money which we can invest in trade and transport.

Q: What are the problems you encounter?

A: Our big problem is landslides when we dig deeper than five metres.

Q: Aren't you afraid of landslides?

A: No. You can die anywhere, not just in the mines. Death is everywhere.

Q: Do you expect to study again one day?

A: Not necessarily. At our age we don't think many institutions would take us. We can already read and write and that's good.

2.7 "It's very hard work": Interview with Mburanumwe, pupil in Matanda

Q: Have you heard of coltan?

A: Yes. Everyone talks about it.

Q: Have you ever been in a mine?

A: Yes, I have. It's very hard work which demands a lot of sacrifice.

Q: Why don't you mine coltan like others at your age?

A: For the moment I go to school and my parents won't let me drop out. Perhaps I'll join the others when I have my diploma.

Q: What advice would you give to other pupils who are still at school?

A: I would like to tell them not to leave school because coltan can run out one day and the young people risk being left on the street and becoming bandits. And even those who have left school use the money they earn for drink and drugs because of the influence of their workplace.

3. Fieldwork among the rural population of Numbi, 28-30 August 2001

3.1 "Coltan pays better": Interview with Célestin Maniriho, manager of a coltan mine at Numbi

Q: When did you start mining coltan?

A: In February 2000.

Q: Who owns the mine?

A: It is situated on the land of Kamali, rented by Felix.

Q: How was Felix able to rent it?

A: I don't know the details, but I know he rented it for a certain sum of money for an indefinite period.

Q: What mineral resources do you find in this mine?

A: Mainly coltan, but there is also cassiterite and tourmaline – a red mineral for which at the moment there is no interesting market.

Q: What workforce do you have?

A: We recruit our workforce among the local population, consisting mainly of Hutu, Shi and Havu. The recruitment is voluntary. At the moment there is an influx of young people from South and North Kivu who come here to Numbi to work as miners. We accept young people over the age of twelve. We have 600 people, mostly young people.

Q: And these 12-year-olds don't go to school?

A: You know that the schools were destroyed in the war and young people with nothing to do come and look for work. But now the authorities have set up a building and at the beginning of the school year we will ask the youngest ones to go back to school.

Q: How do you organise the mine?

A: First of all there is the mine owner, then the manager, the policemen recruited by the manager for control, and lastly the miners.

Q: What is the specific role of each?

A: The manager supervises and collects the coltan mined during each day and gives it to the owner or his representative. The policemen watch over the miners so that they don't steal. The miners are day labourers without a contract. They are employed by the manager every day when they turn up.

Q: How are wages paid?

A: The manager is paid by the owner at a rate fixed when he is engaged. It can be increased according to the goodwill of the owner, especially when production is good. The policemen have no salary. They are paid by reselling stolen coltan they seize from miners to the owner for a price of 12 to 15 dollars per kilogram according

to the tantalum content. The miners are paid according to their daily production at a rate of 6 dollars per kilogram irrespective of the tantalum content.

Q: Are traders directly involved in coltan mining?

A: No. They buy either from the owner for 12 to 15 dollars per kilogram according to the tantalum content or from the miners who steal their produce.

Q: Where do the traders come from?

A: Goma and Rwanda.

Q: Where do they sell their product?

A: Some sell in Goma, others in Rwanda or elsewhere.

Q: At what price?

A: I don't know.

Q: What is the effect of the fall in the coltan price?

A: The atmosphere is no longer the same as it was when coltan was well paid. Despite the fall in price the number of miners has not diminished. As there is no other source of income, they prefer to come and mine, waiting for a day when coltan climbs back to its former value. Despite the fall in price, coltan pays better than agricultural products. For example a 100-kg sack of beans costs ten dollars after several months of work while a miner earns six dollars after around three days of work.

Q: What was the effect of the coltan boom?

A: Coltan reduced unemployment; internally displaced persons found work; pupils and teachers earned money while waiting for the rebuilding of the destroyed school. On the market, the dollar price of consumer goods didn't change. But with the devaluation of the Congolese franc we had the impression that prices were rising.

Q: Who benefits from mining?

A: Everybody. Some miners have even bought plots in Goma, others have bought cattle.

Q: What difficulties do you encounter in mining?

A: We have too few tools. On high land we hardly find enough water for washing the produce to separate the good from soil and dirt.

Q: What tools do you have?

A: Picks and shovels, bars, gravers, stoves, cans and pots, and sieves.

Q: What is the average tantalum content in the coltan of the Numbi mines?

A: Between 35 and 50 %.

3.2 “The fall in the price has discouraged many”: Interview with Mr Shombo, commissioner and representative of the “Nyumba Kumi” (cell, the lowest administrative unit of around ten households)

Q: What mining resources do you have?

A: We have coltan, cassiterite, tourmaline, wolfram, red garnet and a little gold.

Q: Where is this found?

A: We have several mining sites: Fungamwaka (tourmaline and red garnet), Kamali (coltan and cassiterite), Ruvuga (cassiterite), Kakenge 1 and 2 (coltan and cassiterite), Longoyi (coltan), Franco (coltan), Rubishi (tourmaline, cassiterite, wolfram).

Q: Who owns these sites?

A: All the mining takes place on grazing land belonging to Tutsi cattle-raisers (Kamali, Kibirima, Felix, Franco, Ruvuga, Innocent and Eric) apart from one which belongs to a Hutu.

Q: Are the authorities directly involved in mining?

A: I cannot say. Very often we see Rwandan soldiers in military uniform. After they have finished their purchases, they return in civilian clothing.

Q: What do the public services do in the mines?

A: Normally they raise taxes and deliver travel documents. They also protect the miners' interests.

Q: How are you experiencing the fall in the coltan price?

A: The fall in the price has discouraged many miners and they would be prepared to do something else. We hope that the price will rise again.

Q: Are there land conflicts in the mines?

A: Up to now one single case has opposed two people who bought the same site from the same owner. We managed to separate them and each one now has half the site.

3.3 Interview with Mr Gashabizi, Chief of Numbi

Q: What is the effect of coltan mining here?

A: With the falling market price of coltan we have had to deal with a new phenomenon linked to the mining of this mineral here: prostitution. Almost three quarters of the women living in Numbi are unmarried and come from elsewhere. Some cohabit permanently with young miners, others are ordinary prostitutes who sell their services to all the miners.

3.4 “The population is unhappy”: Interview with Mr Shweka, Assistant Territorial Administrator of Kalehe (territory in which Numbi is situated)

Q: What are your main mineral resources?

A: We have coltan in Numbi and Nyabibwe, gold in Shanje, coltan and cassiterite in Luzirantaka.

Q: Who are the owners of these mines?

A: In general they are Havu. On the highlands they are Tutsi and Hutu. There are also some Tembo, Hunde, Shi and Nande, but they are a minority.

Q: Who works in these mines?

A: Havu and Shi.

Q: What is the relationship between the owners and the authorities and local populations?

A: On the whole the relationship with the authorities is good. With the local population the relationship is not good. The population is unhappy with the mining conditions. They also criticise the fact that mining takes place on the land of large landowners and only benefits them.

Q: Are the public services involved in mining?

A: We have agents who inspect the mines, collect taxes and collect statistics.

3.5 “Mainly soldiers and armed groups”: Interview with Bashali Bokalos, GTR Animator (of the Baptist Church ECC) in Bashali Mokoto, Masisi

Q: What are your main mineral resources?

A: We have cassiterite in Kirumbu, Kivuye and Mpati, tourmaline at Bishusha and Bukombo.

Q: Which groups mainly mine these riches?

A: In Kivuye it is mainly soldiers and armed groups who supply their own workforces.

Q: How do the populations feel about this mining?

A: The population is indignant about soldiers and armed groups mining because they don't know where the minerals go and don't benefit from them. They would have liked to work there to earn some money, but the soldiers and armed groups do the work themselves.

Q: What connection do you see between the mining and the war?

A: We think the West has used Uganda and Rwanda to invade our country so they can mine our riches without paying.

Q: Are there mining areas under control of militias or armed groups?

A: In Kivuye there is always fighting between armed groups and the allied soldiers for the control of the area.

Q: How are the minerals from the areas under control of armed groups sold?

A: Congolese Hutu are used by the Interahamwe to sell them.

Q: What is the security situation in the mining areas controlled by militias?

A: In general the armed groups do not bother the population as long as the latter keep away from the mining.

Q: Do you think that with mining the Interahamwe have changed their goals?

A: I think that as long as they mine minerals in the areas they control they can concentrate on selling minerals. The real question is how long they will hold these areas and anyway it is difficult to know what they think.

3.6 “Fight for control”: Interview with Nyanguba Mwicho, chief of Ihana in Wanyanga, Walikale.

Q: What are your main mineral resources?

A: We have coltan and gold in Irameso, Kakungu, Mujuli, Bukatsha, Hombi, Nyaboraro, Mungwe, Koso and Bibasirwa, but also diamonds in Mubi.

Q: Who controls these mines?

A: The Mai-Mai under the command of Ntashi Banga.

Q: How do these Mai-Mai behave towards the population?

A: They steal, loot and rape and cause the population to flee.

Q: Where do they sell the minerals they mine?

A: In Walikale town and Bukombo.

Q: Are other forces involved in this mining?

A: Allied forces are involved in diamond and coltan mining in Mubi.

Q: Who does the work in the areas under allied control?

A: The local population.

Q: What is the effect of this mining here?

A: These resources attract all warring parties who fight for their control. The indigenous population which has access to the mines concentrates mainly on drink and prostitution instead of investing the profits they make like they should.

Q: Who are the large owners of these mines?

A: They belong to Ndakara, Mugurandimu Tumba and Katenga, all from the Nyanga ethnic group.

CONCLUSIONS AND RECOMMENDATIONS

Social consequences of the coltan boom

1. Food security: It is difficult to know how many adults and young people exactly have entered coltan mining. The workforce in the agricultural region North Kivu has been seriously diminished by almost ten years of war with many deaths and massive recruitment of young people into regular armies, rebel armies and private militias. Mobilising able-bodied workers into coltan mining means a significant loss of manpower in the agricultural sector. According to many interview partners, a lot of young people are discouraged by the low coltan price in the mines and return to the villages to take up agriculture again.
2. Physical security: Artisanal coltan mining destabilises hillsides, which is dangerous for miners who are buried in landslides, as there is no specialised service to teach them how to build mineshafts. Several dozen coltan miners were buried in Bibatama in Kibabi in March 2001. Apart from some official declarations which can be characterised as passive sympathy, to our knowledge neither the authorities nor the mine owners have taken any steps.
3. Socio-cultural consequences: Juvenile delinquency, falling school attendance, rising violence, prostitution and the abandonment of households by husbands with pockets full of easy money endanger the social fabric, which is already eroded by war and crisis.
4. Environment: Unplanned mining prospecting is destroying fields and agricultural areas. Without precise delimitation of coltan mining areas, wild destruction threatens the environment and basic infrastructures. In Numbi in Kalehe the massive destruction of former grazing land is catastrophic. Soil which has been used for unplanned prospecting and artisanal coltan mining is no longer usable for agriculture. Entire hills and valleys have been turned into giant craters, turning the landscape of the region into an expanse of naked earth, at the bottom of which flow rivers and streams which were diverted for the requirements of coltan mining.
5. Health: No data on possible radioactivity of the coltan mined in North Kivu is yet available. However, reliable sources report increased congenital deformities in some regions like Mangina and Manguredjipa. Sources speak especially in Mangina of malformations of the types PBVE, Spina bifida, hare-lip and brain damage.
6. Land conflicts: This kind of conflict is not new in Masisi. Until recently, money decided the boundaries of grazing land between the strong and the weak, turning the entire region into a jungle where the strongest won. Now this is happening again with coltan mining sites as the object of dispute instead of cattle or grazing land.

Political consequences of the coltan boom

1. The chaos surrounding coltan mining and selling points to State collapse and a problem of legitimacy as the basis of the crisis tearing apart the DRC. Many contracts signed by political agents from all sides resemble high-risk investments whose lifetime depends on the duration of the crisis. In this sense, resource control is an important aspect of the Congo war, for the warring parties and their allies as well as for the Interahamwe and Mai-Mai armed groups.
2. In the war context of the DRC, characterised by the absence of a State, the division of territory into military influence zones and the presence of allied forces of the neighbouring countries, one may ask what is the legal basis for any kind of regulation. The risk of a logic of armed confrontation between divergent interests may prevail and postpone indefinitely the arrival of peace which is so desired by the population.
3. Armed groups earning lots of money from coltan mining become richer and it seems that some of them are in the process of laying down their guns to concentrate exclusively on this lucrative activity, abandoning the tools of war and preferring a different lifestyle which allows them to enjoy their wealth. On the one hand this would be good news and a chance for peace, on condition that these armed groups are beyond the influence of certain politicians who manipulate them as machines of war and violence. On the other hand certain warlords may be creating private militias to reinforce their control over regions where they mine coltan, thus perpetuating crisis and insecurity.

4. The redistribution of coltan profits is far from equitable. Well-organised mafia circuits have kept the lion's share to themselves. With coltan prices on the world markets falling, these circuits will find other profitable activities while the civilian population loses out.
5. Access to mines by armed groups and Rwandan Interahamwe endangers the prospects for peace and threatens to prolong crisis and war indefinitely.
6. Minorities and disadvantaged groups are victims of violence and looting by armed groups and soldiers and feel marginalised and excluded from the opportunities offered by coltan mining.
7. In Masisi there is a risk of conflict around land and mines, exacerbating tensions between individuals and between ethnic groups.

Necessary steps to improve the coltan mining environment

1. Resource control by soldiers and armed groups makes demobilisation, disarmament and reintegration (DDR) of armed forces more difficult. The AK-47 doesn't only mean physical and psychological security but also economic security. Alternatives to these forms of security must be part of any realistic and credible DDR programme. That is the price of peace.
2. The connection between coltan profits and the war in Eastern DRC is clear. However, the temporary embargo on coltan and other mineral resources as is proposed by international lobby groups and the latest UN report threaten to punish the civilian population even more, who are then reduced to finding ways of survival rather than ways of ending the war. In Burundi the international embargo benefited the business community, while the rural peasants paid the price and the intensity of war did not diminish, contrary to expectations.
3. Food security is seriously menaced in traditional farming areas which have been turned over to coltan mining. The interview partners think that agricultural activities have been relegated into second place, coltan mining having become the main income-generating activity. However, even if coltan mining appears to be an easy way to earn money in a time of prolonged crisis, the tendency to abandon agricultural activities in favour of coltan and the rising prices of foodstuffs means a risk of food insecurity in the short, medium and long term in rural and urban areas. It is imperative to set up an agricultural promotion fund using coltan tax revenues.
4. Conflicts between absentee landowners and managers of farms which have been turned into prospection and mining sites threaten to turn into ethnic conflicts. It is necessary to clarify mining rights in private farms which have been turned into coltan mines and also in private farms which have been destroyed by unplanned prospection.
5. It is necessary to regulate the delimitation of mining and prospection zones in order to protect and support agricultural activities, and to regulate social conditions for children and miners who die in landslides which are outside the remit of artisanal mining arrangements.
6. The consequences of chaotic coltan mining on the health of people who are ready to take on any risk just to survive calls for minimum regulatory standards to avoid mines with radioactive potential. But who will set these standards in the absence of a State?