

Scoping Study on the Artisanal Mining of Coltan in the Kahuzi Biéga National Park



Source: ICN/GTZ

Prepared for:



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EXECUTIVE SUMMARY

This report represents an independent assessment of the issues and challenges of coltan mining in and around the Kahuzi-Biéga National Park (KBNP) located in the East of the Democratic Republic of Congo (DRC). It is based on detailed interviews and discussions with a variety of officials, NGOs and individuals in the DRC concerned or associated with the exploitation of the KBNP's coltan resources

Within the KBNP coltan is located in numerous sites both in the Eastern Highlands around the foothills of Mt. Kahuzi and Mt. Biéga and the Western Lowlands. The 'coltan boom' (from 2000 to 2002) made the exploitation of these coltan deposits highly prosperous for the local communities around the KBNP. Thousands of people rushed into the area to mine both outside and inside the KBNP. This situation attracted pupils and teachers from schools, farmers abandoned their agricultural activities and soldiers deserted the army all to seek their fortune in the coltan mines. At the peak it was estimated that there were around 12,000 artisanal miners working illegally within the KBNP. However, as noted in the UN Security Council report, the Congolese population has been caught up in a fight over their country's vast natural resources with little benefit accruing to themselves. The UN report concluded that 'extracting the maximum commercial and material benefits' has become 'the primary motive' of the military and militia groups involved in this war. This plunder had developed into 'systematic and systemic exploitation' through organised extraction of minerals, taxation in areas under military control and monopolies to corner trading markets. The report concluded that plundering, looting, racketeering, and criminal cartels with worldwide connections have become commonplace in occupied areas and represent the next serious security problem in the region.

Beside all the attendant problems of coltan mining including the destruction of the region's social fabric and massive environmental devastation, for many rural communities it has become the only available livelihood option for economic survival as their old farms have been destroyed and their livestock confiscated. The population surrounding the park is in a desperate state with no employment, potable water and food insecurity, no schools, limited hospital facilities and no roads. The artisanal mining sector has the potential to economically empower some of these disadvantaged and vulnerable groups and contribute to regional poverty reduction efforts providing security and peace returns to the region.

It would therefore be unethical to advocate, and impossible to implement, a complete ban on coltan mining in region. The DFGF are morally right in advocating that mining in the park must be reduced with the longterm aim of the cessation of all resource exploitation within the KBNP. Mining in the KBNP is not a sustainable activity and will irreversibly damage the delicate ecosystem of the park pushing endangered species like the lowland gorilla even closer to extinction. The KBNP is an UNESCO World Heritage site and must be protected from all forms illegal resource exploitation. Therefore the DFGF should focus urgently on the means to relocate the artisanal miners and allow the sector to align itself with the principles of sustainable development outside the KBNP. Only by complete relocation outside the KBNP will the mining sector mitigate the threats to the social, economic and biophysical systems in and around the KBNP. The DFGF should also adopt a clear strategy to return many of the miners back to agriculture as it is unlikely the region could support the current numbers of artisanal miners in a sustainable manner.

The DFGF's approach to formalising must also include strong incentives for these miners to participate in the formal sector and stop mining in the KBNP. Therefore there is also a need to convince the Government and NGOs to commit to assisting with other problems like access to water and food and affordable fuel and electricity, provide training, assist with access to credit or facilitate linkages with legitimate and fair mineral buyers in order to encourage the sector to formalise. The focus of DFGF's efforts must be to alleviate poverty by providing financial betterment and empowerment to local communities and assist in rural development.

The DFGF should also adopt a holistic approach to the issue of artisanal mining in order to increase human, financial, physical and social capital available to the coltan mining sector. However, there must be an assurance that the macro-policy detailed in this document links with micro-reality of the artisanal miners. In full consultation with all relevant and interested stakeholders, the DFGF should attempt to implement the suggested policy framework to ensure a holistic programme of assistance is undertaken that addresses all the issues. The full implementation of the recommended action plan will require significant human and financial resources in a state of peace and security and the presence of a legitimate and caring 'State'. Although the DFGF cannot influence the peace process, improve security or change the legislative/fiscal regimes there are a number of small projects, detailed in this report, that could be implemented to initiate the process of mining activity relocation out of the KBNP and ensure local communities are offered sustainable livelihood options and thereby reduce their reliance on the resources of the KBNP.



1.0 INTRODUCTION

1.1 Background

Wardell Armstrong was commissioned by Dian Fossey Gorilla Fund (DFGF) to undertake a scoping mission to the Eastern DRC and the Kahuzi Biéga National Park (KBNP), in the South Kivu region of the Democratic Republic of Congo (DRC). The exact terms of reference (see Appendix I) were determined following a meeting at DFGF office in London on the 10th March 2002 with the DFGF directors Greg Cummings and Jillian Miller.

This report is an independent assessment of the issues and challenges of coltan mining in and around the KBNP. It is based on detailed interviews and discussions (held during the mission between 20th-29th March 2003) with a variety of officials, NGOs and individuals concerned or associated with the exploitation of the KBNP's coltan resources. The findings and conclusions of the report have not been unduly influenced by any specific party and represents an independent assessment of the current situation and potential way forward.

1.2 The Kahuzi Biéga National Park



The Kahuzi-Biéga National Park (KBNP) is located in the East of the Democratic Republic of Congo (DRC) within the South Kivu province (see Appendix IV). It extends from the Congo basin near Itebero-Utu to the western ridge of a major geological depression in the North-Kivu province. KBNP (see Figure 7) shares its borders with Kabare, Kalehe, Bunyakiri, Walungu, Shabunda and Walikale territories (in North Kivu). The park is divided into two zones that are connected by a narrow corridor: in the east a mountain forest covering 600km² from an altitude of 1,800m to 3,300m (Mt. Kahuzi 3,308m and Mt. Biéga 2,790m) and to the west a tropical forest between 600m and 1,200m. The park consists of an undulating hilly region whose relief generally decreases from East to West. Towards the west, the mountainous massifs have a reduced altitude : Mt. Bituzi (1,842 m), Mt. Kanani (1,700 m), Mt. Makasa (950m), Mt. Kitumba (943 m) and Mt. Kivene. The main rivers in the park are the Luhoho, Lugulu and the Luka. The park acts as watershed for these rivers that are actually tributaries of the Congo River either through Lake Kivu in the South or through the Lowa and Lindi Rivers in the North-West. KBNP has an a distinct climate with a dry season in June, July and August and a rainy season from September to May. The average annual rainfall is 1,900 mm with two maxima in April (2,260mm) and in November (2,360 mm)

The KBNP is located in the bio-climatic area between the equatorial rain forest and the mountainous wet forest. From a phyto-geographical point of view, its eastern part is categorised as a mountainous region that is part of east Africa agro-mountainous area (within the Albertine Rift System) whereas its western part is categorised as part of the central equatorial forest of the Congo basin. Experts distinguish between the following types of vegetation zones:

- Mountain rain forest (& secondary vegetation) - 900-2,300m
- High altitude rain forest (& secondary vegetation) - 1,600 - 2,700m
- Swamp forest
- Bamboo forest (& secondary vegetation) - 2,300-2,600m
- Subalpine heather - >2,600m
- Swamp & peat bog

It has been estimated that there are around 10,000 species of plants of which 24 are endemic. Owing to its phyto-geographical position between two different regions the KBNP has a exceedingly rich fauna. Research has shown that around 131 species of mammals (including 13 species of primates - gorillas, chimpanzees, baboons, colobus, mangabeys and guenons), 226 species of birds, 44 species of reptiles, 30 species of amphibians and numerous species of insects and butterflies inhabit the KBNP.



1.3 Local Population

Population distribution around the park is in general related to the following factors:

- Road network (trading and communication)
- Soil and mineral resources (agriculture and mining)
- Flora (firewood, building materials and medical plants)
- Fauna (bushmeat)

The communities that live in the vicinity of the park and bordering territories include:

- Kabare and Walungu territories in the South-East by the Bashi and Barongerenge ethnic groups.
- Bunyakiri and Kalehe in the North-East by the Bahavu, Batembo and Bakanu ethnic groups
- Shabunda in the Northwest by the Barega ethnic group
- Walikale in the North West by the Banyanga ethnic group

The Balega (Balega) are the dominant ethnic group in the Western part of the KBNP and are forest agriculturists. Historically they have practiced a subsistence economy of shifting cultivation and hunting. Studies claim that their cash supply is largely obtained by mining for gold, cassiterite and most recently coltan. In the past the majority of the villages in the park where Barega (Nkolo and Mbili trails).

The Bashi are similar to the Barega in terms of political organisation. The central and most original component of the local agricultural system is banana cultivation. The requirements of land for banana plantations correlate to the rapid growth of the human population in the region.

Within and around the periphery of the park there are also Pygmy (Mbuti) people who have co-existed with the forest for many generations relying on the forest for hunting, fishing and foraging for fruits and tubers. Forced to leave the older part of the park, the Pygmy now live in small villages located close to the forest on land claimed by the Bashi mainly in the Kabare, Kalehe, Bunyakiri and Walikale territories.



Figure 1. The PoPoF -DFGF Pygmy Women Sewing Group

They have not given up hunting and still set snares to trap small animals, traps that are also dangerous to young gorillas. They live in extended families and occasionally establish farms, however, these farms are usually below subsistence levels and in the past they have supplemented their income by selling and bartering cannabis, wood and bushmeat. This group constitutes a high risk social group in terms of exploitation and destruction of the KBNP's resources.

To divert their interests from the park's resources, various institutes and NGOs including the ICCN, GTZ, POPOF, GALE, APED and APPROPEKA have implemented training programmes for Pygmies in an attempt to secure sustainable employment - including employing Pygmy men as trackers and parks guards. In particular, POPOF (in collaboration with DFGF) has made very commendable progress with specific groups of Pygmy women near Tshivanga including the teaching of basic reading and



writing in Swahili to 26 women and the training of 8 women in sewing skills (see Figure 1) which is soon to be increased by forming two further splinter sewing groups.

1.4 Community Relations

The creation of a Kahuzi-Biéga nature (zoological & forest) reserve dates from 1937 under a Belgian colonial decree (Decree No. 81/Agri). In 1970 a new presidential Decree (No. 70/316) converted the area into a national park in order to protect the lowland gorillas whose numbers at the time were estimated at between 3000 and 5000. This original KBNP covered a 600km² area between the territories of Kalehe-Bunyakiri and Kabare. This initial reserve did not significantly impact on local communities and their activities. The reserve was limited by the Belgian Colonial administration and the traditional chiefs of Kabare, Ninja (Walungu) and Kalonge (Bunyakiri) and took into account the customary procedure of land acquisition established by the colonial administration. Moreover, since the population was still relatively small, conflicts were minimal. During this period hunting served only to provide game meat for villages communities and was based on traditional capture methods being regulated by ancient tribal laws.



In 1975 the Mobutu lead government decided (Decree No. 75-238) to extend the KBNP to 6000km² by the addition of virgin lowland forest. However, some of this lowland area included populated areas and the communities living in these areas were not consulted or compensated for loss of homes and livelihoods. In 1980 the KBNP was listed by UNESCO as a World Heritage Site on account of its ecological importance and its biodiversity.



Figure 2. Aerial photo showing proximity of the KBNP to local communities and agricultural land (Source: ICCN/GTZ)

The eastern Kivu region is one of the most populous areas in Africa with densities up to 300 persons/km². This dense population places great pressure on land and natural resources leading to rapid deforestation, soil erosion and over exploitation of the soils due to poorly adapted farming techniques. Before the two wars it was estimated that around 9,000 peoples lived in the KBNP depending on the forest for food, water and firewood.

In addition, the tropical soils surrounding the park lack a sufficiently dense vegetation cover and hence rapidly develop soil exhaustion. Strong rainfall alternating with intense insolation leaches



and cracks the soils in the upper soil strata resulting in a rapid fall in agricultural yields and leads to nutritional problems for local populations.

The creation of the park severely affected the local communities especially in the Kabare, Bunyakiri and Kalehe territories which were composed of a mixture of ethnic group who were all very reliant on the land and practiced agriculture and hunting in the area for their survival. Therefore, when the new larger KBNP was created conflicts between peripheral populations began especially at Kalonge, Ninja, Bitale and Bunyakiri. Understandably, these populations considered that their fundamental land property rights were infringed and that they were prevented from having access to the natural resources that they depended on (according to POPOF the ICCN staff actually charged a levy to cross the park on tracks used by locals for many years).

The narrow corridor linking the highland to the western lowlands acts as a transitional region between the fauna living in high altitude areas and those living in low altitude areas. This corridor is exceedingly vulnerable and it is precisely here that the most serious human disturbance is located. The presence of numerous farms and plantations in this vulnerable area results in serious conflict. Occupied areas in this corridor include Muleme-Munene (2,550 ha), Kabubwe (3,300 ha) and Lushanga (832 ha). These and many other areas are deemed appropriate for agro-pastoral activities by the local communities and past attempts to remove or limit their occupation has always resulted in fierce opposition.



Figure 3. Deforestation of the KBNP for firewood (charcoal) and agriculture (Source: ICCN/GTZ)

A typical example occurs in the Muleme-Munene agricultural area. During the dry season many of the parks larger ungulates (especially elephants) migrate to this riverside area returning to the Mt. Biéga region in the rainy season in search of young bamboo shoots. This migration of animals through the area has been a major problem to the local riverside communities, resulting in increased hostility towards the park guards who according to POPOF generally acted in a hostile manner and showed little compassion or understanding. As if in revenge, these communities have intensified their predatory pressure on the park through tree cutting and foraging for mushrooms and medical plants.

The demand for firewood and charcoal in this area results in severe deforestation. It has been estimated that each year around 10,000 sacks of charcoal are sold in the north part of Kabare territory alone. This represents about nearly 1,700 trees and corresponds to over 90ha of



deforested land in the corridor region. In addition, local communities cut bamboo and trees for house building. The existence of these farms in the corridor allied with the continual deforestation has prevented, or reduced, much of the natural ungulate migration and restricted their territory. In order to satisfy their dietary demands many ungulates (and some primates such as Baboons) have entered the farming areas in search of food causing damage to the cultivated fields (e.g. maize and sorghum) and the farmers receive no compensation for such damage. Another consequence of the reduced migration through this corridor by certain species has been the prevention of the mixing of populations from the two regions increasing the probability of inbreeding and reducing the available gene pool especially for the elephant and gorilla populations.

The human geography of the park has been drastically altered since 1998. Various groups have entered and occupied the park, firstly the refugees (local populations actually sold firewood collected from the KBNP to the UNHCR for the refugee camps at Kashusha, Inera 1,2 and 3) and Hutu Militia and Interahamwe, then the Mai Mai followed by the RCD (Rassemblement Congolais pour la Democratie) forces. Today the Mai-Mai (in collusion with the Hutu Militia groups) are alleged to control 90% of the park. In reality this figure is nearer 99% as the ICCN (Institut Congolais pour la Conservation de la Nature) can only patrol an area 2km from Tshivanga KBNP headquarters. The vast majority of the 6,000km² is under the control of what the RCD term 'negative forces' essentially the Interahamwe Hutu militia and the nationalist Mai Mai who were previously supported by the Kinshasa Kabila government. The occupation of the park has severely interrupted farming activities in and around the park resulting in severe food insecurity problems and a rural migration especially amongst the youth, leaving schools and households abandoned.



Figure 4. Young Bashi women collecting firewood from the KBNP (Source: ICCN/GTZ)

The occupation has also resulted in a massive loss of wildlife through hunting for bushmeat that was especially profitable during the war and was sold in markets throughout the region. The upsurge in poaching can be demonstrated by the increased occurrence of snares and nooses found by ICCN staff during routine park patrols.



2.0 ARTISANAL MINING

2.1 Coltan

Coltan is a contraction of Colombite-Tantalite, two oxide minerals of the metals niobium and tantalum that often occur in association. Tantalum metal is ductile, easily fabricated, highly resistant to corrosion by acids, and a good conductor of heat and electricity and has a high melting point. The biggest single use now of tantalum is in powdered form, mostly (60%) is for the electronics industry for the production of capacitors. These depend on the dielectric properties of a tantalum oxide film. Tantalum passive capacitors are found in many everyday devices such as mobile phones, video cameras, Sony Playstations[®], pagers, personal computers, and automotive electronics. The use of such capacitors has been a key factor in reducing the size of many electronic devices as ceramic capacitors cannot be made small enough - something that the west seems obsessed with, indeed the modern world could not function without these tiny capacitors. Around 35% of tantalum capacitors are used in the mobile phone industry and as yet cellular phones are not recyclable and manufacturers cannot reuse the rare metals within them. There are also a number of new markets for tantalum capacitors that will maintain the growth in demand for tantalum, the most important being applications in automobile sector. Other electronics uses include SAW filters (with lithium), dynamic random access memory chips, ferro-electric memory chips, semiconductor chips & liquid crystal displays.

Other important applications of tantalum are tantalum carbide used in cutting tools and alloyed for corrosion or heat resistant chemical plant equipment. Another fast growing application for tantalum is as an alloy in the manufacture of turbine blades for power stations and jet engines - tantalum improves structural integrity of the blades at high temperatures enabling the turbines to operate at higher temperatures, thereby increasing their fuel efficiency. Ta mill products include corrosion resistant applications, surgical instruments, ballistics, spinnerets, ultra-high vacuum getter pump, mirror-finished tantalum, radionuclide encapsulation, X-rays films and air bag ignition.

2.2 DRC Coltan Resources

Official statistics claim that Africa is home to 22% of the world's resources of coltan and at present around 18% of the world's supply comes from Africa although this African source tends to be somewhat variable. Central Africa has by far the biggest coltan resources on the continent, especially in the DRC which is alleged to be home to around 60% of Africa's known tantalite resources and currently has a nominal production of around 300,000lb/yr, or around 9% of the world's current production.

The deposits in the DRC are mainly alluvial and eluvial (and some primary pegmatites) and are found in abundance especially in the foothills and of the Mitumba mountains and the lowlands of the eastern DRC. Historically the principal source of coltan in DRC was the major pegmatite lode at Manono in the northern Shaba province operated in the past by the Belgian company *Geomines* and then *Zairetain* and the mines in the Kivu provinces which were mined by *Phibraki* and later *Sominki*. Today coltan is mined in countless localities in the Northern, Central and Eastern provinces of the DRC - including Orientale, Equateur and Maniema. In the Kivus coltan mining (all artisanal) is particularly lucrative especially in areas around Walikale, Kamtuga, Luguswa, Zibo, Minewbwe, Uvira, Walungu, Kalehe, Idjwi, Buyakiri, Masisi, Shabunda, Mwenga, Numbi and in the KBNP. Some reports claim the 75% of the Kivu's coltan resources are located within and around the KBNP, however, without the existence of detailed and modern geological exploration this claim cannot be verified.



2.3 Global Tantalum Markets

Global demand for tantalum has increased strongly since the mid-1990s, exhibiting annual growth of 24% to reach a total of over 3.44Mlb Ta_2O_5 in 2001. As predicted by many brokers the price of coltan sky-rocketed in the period 1998-2000. Back in 1990 the average price was around US\$20/lb by January 2000, an international trader paid around US\$30-40/lb for unprocessed coltan ore. In a few months the price of coltan rose tenfold. By December 2000, the price had risen to US\$380/lb. This increase was caused by an overvaluation of the technology market triggered by a new generation of mobile phones (UMTS) and a rush on computer games (Sony Playstation® II), causing a sudden and steep rise in the demand for tantalum powder. However, the coltan boom was short-lived and prices rapidly decreased. In April 2001, coltan was priced around US\$150/lb, in July 2001, around US\$100/lb and in October 2001, coltan prices were back to where they were before the 'coltan rush' at around US\$25-30/lb. In the meantime, thousands of destitute people had gone digging for the precious ore in the Kivu region, a few international traders had made a fortune and according to the UN millions of dollars had flowed to the parties waging war in the DRC.

Tantalum-bearing materials are not traded on the London Metal Exchange. Also, there are no published prices for tantalum metal or tantalum chemicals. The only pricing information that is published is a reference to tantalite mineral concentrates in the *Metal Bulletin*. According to the *Tantalum-Niobium International Study Center* they have no knowledge or comment concerning the accuracy of these published figures. Tantalum mineral concentrates are sold on a price per

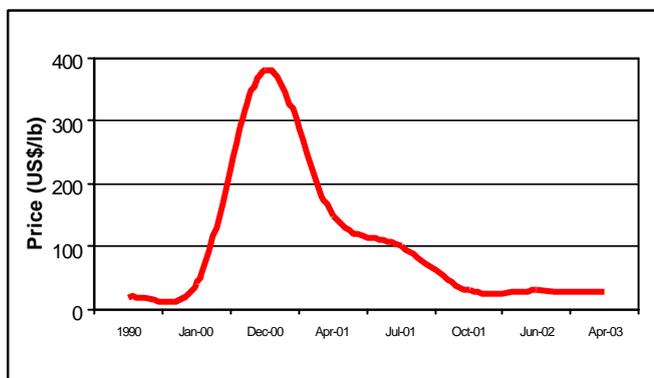


Figure 5. Historical Tantalum prices

pound of contained tantalum oxide content, not on the weight of concentrate itself. The price per pound of contained tantalum oxide is influenced by the tantalum oxide concentration, with lower grades sold at a lower price per pound of tantalum oxide than high content grades. The larger processors of tantalum-bearing materials generally purchase a significant quantity of their requirements by negotiated long-term contracts with those companies that are producing such material on a continuing basis. Additional material is purchased by spot contracts from mining areas where production of the mineral concentrate is intermittent or offered via periodic tender, with the sale going to the highest bidder. The pricing of tantalum chemicals, metal powders, alloys and fabricated articles is generally established by negotiation between buyer and seller. Specifications for a particular chemical, metal powder, or fabricated article of metal or tantalum alloy are dictated by the application. Specifications and their influence on processing requirements, and the volume of a specific product all influence the prices negotiated between buyer and seller.

At present the best grade tantalum ore is sourced from the Kenticha alluvial tantalite mine in southern Ethiopia (operated by *MIDROC*, a wholly-owned subsidiary of *Ethiopian National Mining Corp* and produces around 120,000lb/yr). This material which grades at around 65% currently (April 2003) sells for US\$26/lb on the London market. Most other ore currently sells at between US\$22 and US\$24/lb. However, according to tantalum market experts the forecast for the price is promising with the expectation that the price should rise to around US\$50-70/lb in the near future.

In June 2001, a coalition of European NGOs launched a campaign with the slogan 'No blood on my mobile! Stop the plundering of Congo!' to demand that measures be taken to ensure that the trade in Congolese minerals benefits the people of DRC instead of fuelling a war that destroys



their livelihood. Some companies did react under international pressure, the Belgian airline *Sabena* said that it would no longer ship the mineral from the region to Brussels. *Nokia* and *Motorola* were among several major mobile phone makers that issued a complete ban on Congolese coltan to ensure that their suppliers stop using ore mined illegally in DRC. The world's largest maker of tantalum capacitors, *Kemet* in the USA asked its suppliers to certify that ore does not come from Congo or bordering countries, including Uganda and Rwanda and *Cabot Corporation*, another USA company, which is the world's

second-largest processor of tantalum powder, also announced that they will not buy any ore from the DRC. The United Nations (UN) wanted an all out embargo on all coltan from the DRC, Uganda, Burundi and Uganda until those nations were thoroughly investigated - however this stance met with stiff resistance from certain trade groups who claimed that legitimate traders would be hurt by such draconian actions. On the flip side many in the development sector found it slightly insulting that in a country where millions are hungry and coltan is helping to feed some of them, a de facto embargo managed to gather momentum among high-tech companies apparently worried less about human beings than about the public-relations downside. Among the Congolese the consensus seems that they cannot risk the simple solutions that outsiders are prescribing. Struggling to survive in a 'failed state' under volatile and unstable conditions, they continue to see no straightforward answers or moral high ground. Therefore despite these embargoes the digging goes on, even at the current price of international price of less US\$25/lb coltan is still valuable, and a source of income to many impoverished people in the Kivu region.

2.4 UN Security Council Reports



Two UN resolutions have condemned the invasion of the DRC and recommended that the countries involved withdraw their troops. The UN has also set up a panel of experts to report on 'The illegal exploitation of natural resources and other forms of wealth of the Democratic Republic of Congo'. This report stated that because of the lucrative nature of the war, it has created a win-win situation for all the belligerents. The Congolese population has been caught up in a fight over their country's vast natural resources. The report concluded that 'extracting the maximum commercial and material benefits' has become 'the primary motive' of the countries and armies involved in this war. Equally worrying is the Panel's finding that 'the role of the private sector in the exploitation of natural resources and the continuation of the war has been vital'. This conclusion has also been restated in the more recent update report that was published in October 2002 and actually named companies and individuals that the UN believed have violated the OECD Guidelines for Multinational Enterprises. In fact the UN noted that some 12 African states are involved in the transit of Congolese coltan with around 16 international end use countries.

The report stated that it is blatantly obvious that the fighting in the DRC has become mainly about access, control, and trade of five key mineral resources: coltan, diamonds, copper, cobalt, and gold. This plunder had developed into 'systematic and systemic exploitation' mainly by Rwanda, Uganda and their allies through organised extraction of minerals, taxation in areas under their control and monopolies to corner trading markets. The report concluded that plundering, looting, racketeering, and criminal cartels with worldwide connections are becoming commonplace in occupied areas and represent the next serious security problem in the region. The UN report points out that the illegal exploitation has been abetted by Western companies, governments, multilateral institutions, and diplomats and lists 35 companies illegally importing minerals from the eastern DRC through Rwanda and Uganda to the West to countries like Belgium, USA, Netherlands, Germany, Britain and Switzerland.



2.5 Coltan Mining in the KBNP

Within the KBNP coltan is located in numerous sites (see Figure 7) both in the Eastern Highlands near Ramba and around the foothills of Mt. Kahuzi and Mt. Biéga and the Western lowlands (especially in the north near Kakelo). The remaining coltan sites are small and it has been claimed by some (IPP) that the Mai Mai and other Hutu militia have ordered the cessation of mining in the rest of the KBNP, but this claim cannot be verified. Access to the lucrative mining areas within the park is still controlled by either the RCD or more recently the militia groups (and hence could not be visited during the recent DFGF mission). According to International Crisis Group (ICG) both sides have used violence in order to achieve massive population displacement from mineral rich areas and secure the resources for military actors. The ICG also reported that in 1999 and 2000 a number of villages around Kalonge and Bunyakiri were emptied under force to allow access to mineral deposits. Similar incidents have been reported near Pinga, Masisi and Walikale.



Figure 6. Artisanal miners alluvial coltan deposits near Walikale in South Kivu (Source: AfricanXchange)

Within the KBNP coltan is found in existing streambeds and in fairly soft rock of alluvial and elluvial deposits. The miners have no geological knowledge and only dig where the deposits outcrop on surface. Therefore many deposits are inefficiently exploited. The artisanal miners simply clear the area of vegetation and excavate the mineral bearing gravels. The miners dig with shovels, sometimes with picks and crowbars to loosen the substrate (see Figure 6). The loose gravel mix is then concentrated by passing in through a sieve and washing the product in a bowl or more commonly passing it through a crudely constructed sluice box or piece of curved Eko bark until only the heavy coltan particles remain. The coltan grit is carried from the forest in a variety of contains including old paraffin contains, oil barrels or it is simply bagged in small nylon bags sewn from larger food sacks. The concentrated product is usually transported by foot on the back of a worker in a 'makako' - a sort of basket-rucksack made from forest lianas. Although most people are unsure exactly how the coltan comes out from the KBNP many claim that women and



children are often employed for the task of 'smuggling' the coltan out from the KBNP. Some even state that small planes land on airstrips on the periphery of the park to help transport the coltan out from the KBNP. Once outside the park and in hands of the traders and buyers in Goma and more commonly Bakavu (the main buying centre) it is impossible to differentiate between ore that has originated from within the KBNP and ore from the legal mines in the region outside of the KBNP. Therefore, the exact tonnage of coltan that originates from the KBNP cannot be determined.

It is worth noting that some local traders state that the actual Ta_2O_5 grade in a specific area does not vary significantly leading to a crude 'source signature'. Some traders actually have listed the grade signatures against location allowing them to potentially identify where produce has originated. The Canadian Institute *CANMET* has undertaken (April 2002) mineralogical studies of the coltan from the KBNP and vicinity and concluded (via modal analysis) that the cassiterite (an oxide of tin) content of the coltan ore could be used as an 'unambiguous indicator of origin'. *CANMET* found that samples that originate from within the KBNP are richer (45-75 wt%) in cassiterite than samples taken from nearby areas (2-11wt%). It would be interesting to examine whether this procedure could be used in practice (using a portable spectrographic equipment) to identify KBNP coltan, although crude blending and/or selective separation of KBNP coltan with coltan from other areas could easily mask any 'signature' grade or reduce the cassiterite content. *CANMET* did identify a more rigorous means of discrimination based on detailed chemical (electron microprobe) analysis and demonstrated that KBNP coltan had a much lower Mn/Mn+Fe content than ore from Rwanda and a shifted range of Ta/Ta+Nb compared to ore from the vicinity of the KBNP. Although, as suggested by *CANMET*, further sampling may prove this indicator to be a foolproof means of identifying KBNP coltan, it can only be undertaken by specialised laboratories and therefore does not represent a pragmatic solution.

The current RCD legislation (Ordinance No. 67/416 and 84/82 portant Règlement Minier, and No. 81/013 - portant Législation sur les Mines et les Hydrocarbures) states that artisanal mining is legal providing the miner is Congolese and has a special mining 'Cresseur' ID card (which costs around US\$10 annually for coltan). However, the law categorically states that it is illegal to mine in the national parks. The South Kivu Mines department does not know how many artisanal miners are active in the region or in KBNP and the 200 Cresseur IDs which have been issued probably represent less than 1% of the miners active in South Kivu. It is worth noting that the current RCD legislation also states that a legal and exclusive artisanal mining permit for a 500m² concession to exploit coltan costs US\$4,000 per year.

Although the Kivutians have been mining the regions gold and diamond resources (especially near Shabunda) for years, it is only in recent times during the two wars that they have been enlisted as 'convincible labor' to mine coltan, cassiterite and gold on behalf of rebel forces or government armies within the KBNP. After the 'liberation war' of 1996 and during the war of 1998 the influx of people into the park was augmented by refugees following the destruction of their camps in Goma by the RPA (Rwanda Patriotic Army) who sought to seek and exterminate the Interahamwe (the former Rwandan soldiers and Hutu militiaman who carried out the genocide in Rwanda back in 1994). By the end of 2000, the population of the Kivus was suddenly dragged into an unprecedented rush for coltan in and around the KBNP. The 'coltan boom' (from 2000 to 2002) made the exploitation of coltan highly prosperous for the local communities. Thousands of people rushed into the area to mine both outside and inside the park. This situation attracted pupils and teachers from schools, farmers abandoned their agricultural activities and soldiers deserted the army all to seek their fortune in the coltan mines. Makeshift 'trading posts' for the selling of coltan suddenly appeared everywhere. Road and air traffic increased especially in the Walikale, Shabunda and Kalehe territories. At the peak it was estimated that there were around 12,000 artisanal miners working illegally within the KBNP. Providing the miner was fit and relentless and the digging is good, a miner could produce a kilogram a day. Back in 2000 this was worth US\$80, a remarkable bounty in a region where most people live on 20 cents a day. However, today these miners make very little and get between US\$2.5 and US\$12/kg providing it is not simply confiscated from them by the soldiers before they get a chance to sell it.



2.6 Coltan Trading in the Kivus

(see also IPIS report 'Supporting the War Economy in the DRC')

The existing coltan trading chain is somewhat complicated by the existence of unnecessary additional levels of trading and buying. According to the current RCD legislation the first level of buyers/traders (Négociant catégorie A) are mobile and can travel to the mines to purchase mineral produce from the 'creuseurs' and a coltan annual license costs US\$300. The second level (Négociant catégorie B) whose annual licence costs US\$5,000, must remain in the towns and purchases coltan from the category A traders. There are believed to be less than twenty Négociants based in Bakavu (official reports from the Mines Department claims only 10) who currently trade coltan at an average price of around US\$70/kg.

The final level in the coltan trading chain are the 'Comptoirs' who export the coltan to the international market. This license costs around US\$15,000 for coltan (or US\$25,000 for a combined cassiterite/coltan license). The RCD legislation also levies specific *ad valorem* taxes on the export of coltan currently this is 8% of the CIF/Rotterdam price (or US\$1/kg). At present there are only four Comptoirs based in Bakavu and only one, *Gemicom* is actually Congolese. Amongst the other Comptoirs two are Rwandese (*Shenimed* and *Ewery*) and one is Burundian (*Mapasa*). These non-Congolese mining *détachés* currently export more than 70% of the coltan from Kivu including ore originating from the KBNP. During the DFGF mission it was not possible to determine whether other companies mentioned in the last UN report such as *SOMIGL*, *Cogecom*, *Cogear*, *Sogem*, *Masingrio GmbH*, *Eagle Wings*, *Grand Lacs Metals*, *Finconcord*, or *Rwanda Metals* are still operational or have still have connections with local Comptoirs and the current coltan trade.

As already stated once the illegal mined coltan is outside the KBNP and in hands of the various traders and buyers it is impossible to differentiate between ore which has originated from within the KBNP and ore from the legal mines in the region. What is clear is that as virtually all KBNP coltan passes through Bakavu all subsequent revenues from taxes and licensing pass directly to the RCD. The Mai Mai claim to gain only a little from the 'taxing' of the miners to allow them to pass into the KBNP. The presence of the various militia and military groups results in an excessive amount of 'taxes' being levied on the miners and coltan traders, although they receive little if any assistance and support. Many miners also claim that their coltan produce is often simply confiscated by the RCD or the militia groups irrespective of where they are mining and whether they have an official *Cresseur* card. At present intermediaries buy from the *cresseurs* at average price of around US\$10/kg (currently the value is determined by the percentage of Ta₂O₅ multiplied by 0.4 to give the value per kilogram). To add to the current problems the various Comptoirs, especially the three non-Congolese based organisations are by-passing the Congolese Négociants and purchasing the coltan directly from the *cresseurs* and are occasionally willing to pay above average at US\$12-15/kg for high grade mineral, although most often they simply dictate the price.

As already mentioned, this official supply chain is often bypassed as many miners claim that their production is frequently confiscated by the militia forces (e.g. in April 2001 at Kakelo). This action questions the motives of the militia forces. Are they as they claim 'ethnic self-protection nationalist forces' or are they just bands of youth who have mobilised with the aim of looting and simply taken on the Mai Mai or Interahamwe name for convenience or cover? According to the ICG the militia forces are not the only looters, the RCD have also attacked mines and communities with the principal aim of confiscating the coltan once it has been mined by either local communities or the militia groups. To add to the confusion there is also evidence of collusion between these enemy forces for mutual economic benefit from the exploitation of coltan.

The RCD, at the official level, gathered substantial revenues from licensing fees and taxes. The UN also stated that informally, multiple bribes and 'facility payments' were also given to key individuals. Violence was also employed to loot mineral stocks and enforce control over existing mining concerns (e.g. RCD removed 2,000-3,000t of coltan from *Sominki* in November 1998).



The UN estimates that at the height of the coltan boom the RCD could have made US\$20 million per month, simply by selling the coltan. Official RCD statistics claim that 172,332.8kg of coltan were produced in Kivu in 2002, but one can only wonder what proportion of the real total exported to Rwanda this represents and exactly what revenues were generated for the RCD and the Rwandan Army. Here lies the vicious circle of the war. The UN claim that coltan permits the Rwandan army to sustain its presence in the DRC. The army provides protection and security to the individuals and companies extracting the mineral. These have made money that is shared with the army, which in turn continues to provide the enabling environment to continue the exploitation.

2.7 Social Implications of Coltan Mining in the Kivus

The coltan 'mining' camps amount to no more than forest clearings where in the past miners lived in thousands under the eye of the various Hutu militia, the Mai Mai or official military groups. The 'ownership' of the mines has frequently changed hands as the various belligerents have fought over access to the sites. Although the numbers of miners (estimated at 12,000 at the peak) has significantly reduced since the boom period the situation is still 'volatile' and with few jobs in the region the various militia groups have chosen to remain in the KBNP and rely on illegal mining and poaching to survive. Violence and the looting of local villages combined with the massive recruitment of young people in to the mines, rebel armies and militia, has resulted in the evacuation of entire areas away from agricultural production, resulting in rural unemployment, severe food insecurity and rapidly increasing prices of basic foodstuffs in the rural areas.



Figure 8. Severe overcrowding, food shortages and price increases in the lakeside markets in Bakavu

Since the boom many miners have been discouraged by the low prices and have abandoned artisanal production altogether or are treating it as a seasonal activity of interest only in the unproductive agricultural months resulting in incremental improvements in food security. Other miners have joined existing militia groups or formed their own whilst some have managed to



become petty traders in local towns. Those that continue to mine are attempting to exploit other commodities including cassiterite, gold and wolframite (an oxide of Tungsten). Today the majority of women working in the mining camps work only as cooks and water carriers for the miners. Women and children are still used to transport out of the KBNP. It is worth nothing that, at present many claim that it is actually easier to mine within the KBNP than to legally mine in the surrounding areas, although the decrease in production has actually accelerated military control over the production and marketing of coltan.

Beside the obvious breakdown of the region's social fabric (families and communities), the abandonment of farms and the drastically reduced school attendance various other social problems have occurred following the boom period. Firstly, at the artisanal miners level health and safety in the mines is non-existent and there have been numerous accidents from landslides and underground collapses (e.g. in March 2001 at Bitatama) resulting in many fatalities. Health issues have also been raised regarding the potential radioactive nature of some of the coltan deposits leading to congenital deformities in some regions (e.g. Mangina and Maguredjipa).

The mining camps are also centres of moral depravity and escalating violence. The presence of drugs and alcohol exacerbates the problems and allied with the rise in prostitution leads to the increased spread of HIV and other STDs. In addition, polygamy and rape of women and children were also reported within the camps. During the boom much of the labour force was coerced to working in the mines with the RCD using prison labour (imported from Rwanda) or conscripted labour from the local communities (including women and children). Today the miners are allegedly 'voluntary' miners and are usually only men.

At the trading level, various merchants embezzled money, arguments and competition between rivals lead to criminal revenge acts, and according to the IPIS even murder. The contraction in the profit margins and exodus of many alien traders after the boom has driven many former intermediaries at the trading level out of business. Today this vacuum had been filled by commercial military actors who claim to have 'rationalised' production. Lastly, exporters in Bukavu have created a mafia style monopoly reserving the trade in coltan for the 'war lords' and their associates. This alleged monopoly still exists today with the military backed Comptoirs imposing controlled prices on the artisanal miners and in some areas controlling production itself and organising and directing the labour force. Remember that the bulk of the profit from the coltan trade goes to these people higher up the commodity chain and that the redistribution of coltan profits is far from equitable.

Another consequence of the recent war has been the massive rural-to-urban migration as the rural communities have been the main targets of violence and looting (including the theft of harvests and livestock). This migration has placed great strain on the few ill-equipped urban economies such as Goma, Bakavu (see Figure 8) and Uvira. The basic economic and livelihood choices for those forced into these urban centres are considerably more restricted than they would be in rural areas. Unfortunately this intense mining activity was more profitable to specific military backed individuals (all foreigners) rather than to the local population. The embargo on Congolese coltan enforced towards the end of 2002 misdiagnosed the real problem and resulted in increased food insecurity, rural dollarisation, decrease of currency circulation, outbreaks of armed groups, thefts, etc. Young people who were involved in mining activities were compelled to join their former gangs or armed groups or to return to towns where they created criminal gangs and resorted to other forms of juvenile delinquency. At the level of traders many were compelled to desert their households because of insolvency. Essentially the embargo penalised the local Congolese people and not the high level exporters and their military backers who gained the most from the coltan trade.

Beside all the attendant problems of coltan mining, for many rural communities it has become the only available livelihood option for economic survival as their old farms have been destroyed and their livestock confiscated. The population surrounding the park is in a desperate state with no employment, water and food insecurity, no schools, limited hospital facilities and no roads.



2.8 Environmental Devastation of the KBNP

The price of this plunder is not just being paid by the human victims of war. The coltan trade and battle over the other minerals and resources has also affected the wildlife and environment of the KBNP. Until the mid-1990s the inhabitants of this Kahuzi-Biéga National Park lived in relative tranquillity. Then the Interahamwe fled their native land and took refuge in the KBNP's forests. They were promptly pursued by their Rwandan enemies and the RCD. The Mai-Mai has also joined the battle with both sides. Initially, this three-way conflict wreaked mayhem, but then all three groups allegedly began to collude with each other to pillage the park's vast mineral wealth. In addition, more than 10,000 villagers moved into the park to mine its lands but did not bring any

livestock with them and have planted almost no crops. Food insecurity has meant that they have relied almost entirely on foraging and bushmeat from the park.

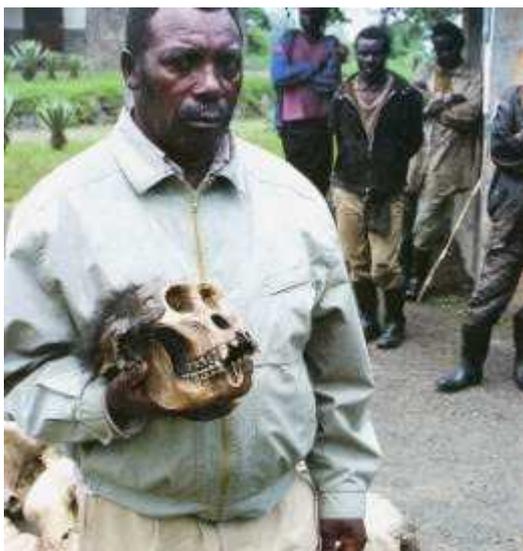


Figure 9. Mr Mbilzi Wenga (ICCN) with a poached Eastern Lowland Gorilla Skull in the ICCN offices at Tshivanga, KBNP (Source: DFGF)

Thousands of elephants have been killed for food by miners. In the KBNP only 2 of 350 elephants remain. Most were slaughtered for food and for their valuable tusks. The forest elephants have been the victims of a well-organized system of poaching that violates international law (CITES). Many claim that either soldiers hunted directly with the consent of their commander or they provided equipment and protection to local villagers to execute the task with the objective of collecting the tusks.

Once the elephants had vanished from the mining areas gorillas became the hunters quarry for bushmeat. This is beside the fact that before the wars many local ethnic groups (e.g. the Bashi) had taboos against hunting and eating

gorillas. The militia forces and refugees have also been harvesting a key gorilla food source, bamboo, for building material. As a result of the coltan rush and the two wars, conservationists fear the eastern lowland gorilla (Grauer's Gorilla) has now been reduced to a rump of a few hundred animals, a number so low as to leave the species vulnerable to any outbreak of disease or slight climate change. The DFGF estimate that of the 258 gorillas that used to inhabit the highland area of the KBNP five years ago, only 110 are now left alive. According to GTZ (following their sensitisation programme) the Mai Mai and Hutu militia have ordered their soldiers to stop killing gorillas, however, as the ICCN cannot enter the park it is impossible to verify this claim and determine how many of the 8,000 individuals (WCS 1998) remain in the entire KBNP.



According to the World Wildlife Foundation (WWF) areas like the KBNP represent the 'holy of holies' in terms of densest concentrations of animals and most biologically diverse ecosystem on the planet. Beside the direct impacts on the flora and fauna of this fragile ecosystem there are other environmental consequences of the coltan rush. For example the need for water to separate out the coltan means that mining tends to be concentrated along streams and rivers leading to pollution of streams by silt from the washing process. The use of the streams also exacerbates the erosion of soils and the risk of landslips during heavy rain, and tends to silt up pools downstream resulting in long-term changes in the KBNP's watershed due to rapid run-off in deforested areas. Many rich agricultural areas around the park (e.g. Kahele) have been destroyed through unplanned prospection and direct exploitation of the mineral deposits. Without geological founded delimitation of the mining areas, complete destruction threatens the environment and many basic infrastructures. Entire hills and valleys have been turned into giant craters, turning the landscape of the region into an expanse of naked and sterile earth.



3.0 CONCLUSION

3.1 Insecurity Issues

(for more detail on the current conflict see 13th UN Security Council Report & ICG Report No.56 'The Kivus: The Forgotten Crucible of the Congo Conflict')

Although the Government of Rwanda has officially withdrawn its troops from the Kivus many thousands of Rwandan soldiers are believed by MONUC, to be still resident and fighting the militia in the Kivus. The Rwandans argue that the Interahamwe's presence as an active fighting force legitimises Rwanda's occupation of Congolese territory. Until the Congolese Kabila Government is capable of neutralising the Interahamwe threat, Rwanda claims it must do the job instead. However, the presence of the Interahamwe can never legitimise Rwanda's alleged looting of the DRC's resources. Does the horror of genocide really confer the right to inflict suffering on the Congolese people?

Within and around the KBNP MONUC claim that there could still be as many as 15,000 Mai Mai and Hutu militia troops. Both formal UN and informal sources state that the Mai Mai and allied militia groups have nominal control over large areas in and around the KBNP. This severely restricts the operational capacity of the ICCN within the park and currently they can only patrol around 2km from Tshivanga. They have requested that MONUC assist in removing the Mai Mai and other militia groups from park to allow ICCN work (see Appendix VI)

The RCD also claim that they want to open a dialogue with these militia groups to ensure the security of the KBNP and are committed to the DDRRR (Disarmament, Demobilisation, Repatriation, Resettlement or Reintegration) programme. However, recent MONUC reports claim that there is a very high likelihood of further instability in the region following the increased activity of the RPA (including taking ICCN staff as hostages to show the RPA how to enter park and where mines and the militia groups are located) in the region. Many Congolese claim that these recent incursions by the RPA into the area are really to gain access and control of coltan mines in KBNP and the vicinity. MONUC stated reports of a massive RCD recruitment drive in the region to create new brigades. MONUC stated that the Rwandans have also formed and armed Rega militia groups to assist in strikes against the Mai Mai based in Shabunda (where they believe General Padiri to be resident at present). MONUC is expecting RCD to launch an attack on Mai Mai and Hutu militia in Walikale, Buyankiri and Shabunda in very near future (April 2003).



Figure 10. RCD soldier near the KBNP

According to GTZ and a Mai Mai representative the Mai Mai and Hutu militia have ordered their soldiers to stop killing gorillas, however as the ICCN cannot enter the park it is impossible to verify this claim. The problem is that these militia groups cannot work with the ICCN as they are really RCD. The UN and numerous NGOs working in the area all agree that the insecurity and lack of sustained peace in the region has resulted in population surrounding the park being in a desperate state with abuses of human basic rights, no employment, water and food insecurity, no schools, limited hospital facilities and no electricity or roads.

The fundamental truth is that without peace in the region and the removal of military influenced zones the problems and chaos surrounding the coltan sector will continue causing a direct threat to the fragile and vulnerable ecosystem of the KBNP



3.2 Recommendations

From a livelihoods perspective, coltan mining provides the only means of obtaining income for many poor communities in the Kivus who have few employment alternatives as their old farms have been destroyed and their livestock confiscated. The artisanal mining sector has the potential to economically empower disadvantaged and vulnerable groups and contribute to regional poverty reduction efforts providing security and peace returns to the region. On a local level it could provide a means of survival and decent work for the miners and stimulate demand for locally produced goods and services and various types of basic infrastructure. On a provincial level this could translate into foreign exchange earnings and tax revenue for Kivutian provincial government, providing that peace is restored and a mutually conducive environment is created.

It would be unethical to advocate, and impossible to implement, a complete ban on coltan mining in region. However, mining in the park must be reduced with the longterm aim of the cessation of all resource exploitation within the KBNP. Regardless of some claims, mining in KBNP is not a sustainable activity and will irreversibly damage the delicate ecosystem of the park pushing endangered and endemic species closer to extinction. The KBNP is an UNESCO World Heritage site and must be protected from all forms illegal resource exploitation. Allowing mining to continue in the park could also set a disastrous precedence for resource exploitation in other National Parks and World Heritage sites in the DRC and elsewhere in the world.

Hence there is an urgent need to focus on the means to relocate the miners and allow the artisanal mining sector to align itself with the principles of sustainable development outside the KBNP. Only by complete relocation outside the KBNP will the mining sector mitigate the threats to the social, economic and biophysical systems in and around the KBNP. There must also be a clear strategy to return many of the miners back to agriculture as it is unlikely the region could support the current numbers of artisanal miners in a sustainable manner.

The alleged control by military and foreign agents of the coltan sector has isolated it from the mainstream of economic development in the Kivus. It has also prevented it from becoming a recognised economic activity, contribute to the provincial government revenue or attractive investment. Minorities and disadvantaged groups are the victims of violence and looting by armed groups and feel marginalised and excluded from the opportunities offered by coltan mining. In addition, it has been estimated that >95% of miners in the region operate illegally without a formal 'Cresseur' ID. These problems must be addressed and artisanal mining development encouraged to generate rural employment and reduce poverty, whilst protecting the rights of indigenous people and in particular women and children especially in the vicinity of the KBNP.

Legalisation is the first step to formalising the sector into a sustainable activity, but there is need to ensure that consideration of a variety of issues is also included:

- Provision of the right to exploit a particular deposit outside the KBNP.
- Provision of full and transferable mining title and security of tenure.
- Curb the illegal trade in coltan and other minerals (and ensure all exports are declared)
- Ensure the illegal mining within the KBNP is discouraged and ultimately stopped.
- Removal of excessive and duplicate taxation within the sector.
- Encourage the development of deposits suitable for artisanal mining outside the KBNP.
- Encourage the formation of miners associations and co-operatives.
- Generate stable alternative employment opportunities in rural areas around the KBNP.
- Mitigate the severe environmental & health & safety effects of uncontrolled mining activity.
- Encourage the entry of Congolese nationals into the sector and eliminate alien workers unless they show a willingness to collaborate with Congolese locals and invest in the region.
- Protect the rights of indigenous peoples in the area irrespective of ethnic groupings.



Unfortunately, the new mining laws and codes of the DRC (and the current RCD legislation) still fail to really identify the real needs of artisanal operations and does not recognise the importance of the sector.



Figure 11. Artisanal mining in the KBNP (Source: ICCN/GTZ)

The approach to formalising the sector should not be naïve: there must also be strong incentives for these miners to participate in the formal sector and stop mining in the KBNP. For locals, simply registering their business to appease the 'government' is a tortuous and expensive process, costly in both time and money and offers limited if any advantages. So why bother? This suggests that they see more disadvantages from working within the formal sector. The authorities need to convince them otherwise. In addition, how do you convince the miners to abandon their mining concessions in the KBNP? Therefore there is also a need to convince the Government and NGOs to commit to assisting with other problems like access to water and food and affordable fuel and electricity or facilitate linkages with legitimate and fair mineral buyers in order to encourage the sector to formalise. All these incentives must be used to draw the miners away from the KBNP into legal and more sustainable mining areas.

It is clear that if this informal artisanal mining sector is to be turned into an economically viable industry that provides a net benefit to all concerned, especially the local communities around the KBNP, real reform is required. Broadly-speaking the short and medium term goals of assistance to the sector in the Kivus should include:

- Encourage local economic development by ensuring that revenues are invested in ways that bring sustained benefits and lead to alternative and more sustainable livelihoods (especially a return to agriculture) that does not impede on the KBNP.
- Address the potential ethnic problems between 'managers' and absentee landowners of land that has been mined.
- Adopt a gender-sensitive approach that gives particular emphasis to the role of women.
- Reduce child labour in mining areas through the provision of viable alternatives.
- Avoid or mitigate negative environmental and social impacts on the KBNP and its local populations as well as impacts on human health especially HIV/AIDS.
- Encourage equitable markets for all mining products.
- Develop the collective capacity of miners to contribute to sustainable development and an upscaling of mining activity through the adoption of identified best/good practice.
- Promote good relationships between the miners the ICCN staff and the local communities.



Remember that the focus of any reform should be to alleviate poverty by providing financial betterment and empowerment to local communities and assist in rural development. The following nine points essentially embody the most critical macro tasks that need to be addressed in order to formalise, develop and assist the artisanal mining sector in the vicinity of the KBNP

- Delineate and define the mineral potential outside the KBNP suitable for artisanal exploitation on land that does not conflict with sustainable agriculture.
- Establish and resource a Government institution or unit to handle and/or manage the artisanal mining sector.
- Formulate an enabling, appropriate, fair and transparent legislative and fiscal (taxation) framework and licensing scheme.
- Encourage the formation of mining associations or co-operatives.
- Provide outreach services - regional self sustaining technical assistance and training schemes (appropriate and best practice technology)
- Provide a viable and sustainable financing (micro-credit) scheme for the sector.
- Provide a fair, equitable and effective marketing system for mineral products.
- Define relevant and consistent health & safety standards and practices.
- Establish appropriate and realistic environmental protection practices and principles.

A holistic approach must be adopted in order to increase the human, financial, physical and social capital available to the sector. However, there must be an assurance that this macro-policy links with micro-reality of the artisanal miners. In full consultation with all relevant and interested stakeholders, this policy framework needs to be implemented to ensure a holistic programme of assistance is undertaken that addresses all the issues.

As a final thought, mineral analysts have predicted annual growth in tantalum demand to remain flat (4%) until mid-decade with demand forecasts for 2005 currently at between 5.3Mlb and 6.3Mlb per year. Future long-term demand growth expectations remain between 10%-20% per annum. In addition, European traders have forecasted the tantalum price to rise from around US\$22-26/lb to between US\$50-70/lb. In combination these two market factors will result in increased interest and pressure on the coltan resources in the Kivus and therefore it is essential that urgent measures are taken to protect the habitat and fragile ecosystem of the KBNP.

3.3 DFGF - Sustainable Artisanal Mining Project



The above recommendations to create a sustainable artisanal mining sector outside park and institute a fairer and less harmful way of mining and trading present a substantial challenge to the regional Government and the local NGOs. Remember that at present many in the coltan sector feel trapped between the Kinshasa Government and the warring RCD and militia groups currently occupying their home region. Implementation of this action plan will require significant human and financial resources in a state of peace and security and the presence of a legitimate and caring 'State'.

Although the DFGF cannot influence the peace process, improve security or change the legislative/fiscal regimes there are a number of small projects that could be implemented that will initiate the process of mining activity relocation out of the KBNP and ensure local communities are offered sustainable livelihood options.

- The DFGF (in collaboration with the South Kivu Geological Department) could assist with the location and delineation of mineral potential targets outside the KBNP suitable for artisanal exploitation on land that does not conflict with sustainable agriculture (e.g. Shabunda or Mwenga - location of 90% of Kivu mineral production).
- The DFGF (in collaboration with FEC) could encourage the formation of, and work in cooperation with, mining associations or co-operatives in specific regions outside the KBNP.



- Based on the fact mining offers no security for those that are not trained the DFGF (in collaboration with South Kivu Mines Department) could provide outreach services (working with NGOs like POPOF) - regional self sustaining technical assistance and training schemes that teach appropriate, environmentally friendly and best practice technology. All advice and assistance services would take account of the cultural background, gender issues, geographical isolation, capabilities and the working environment of miners. Advice will be clearly worded in Swahili or another appropriate language (or illustrated considering issues of illiteracy) and be relevant to the local conditions and culture of the region. All potential methods of communication will be examined and appropriate mediums adopted such as leaflets, posters, videos, meetings with group leaders, village elders etc. to 'sell' the credibility of the training and assist in the dissemination of information and the sensitisation process.
- Since many miners complain about the difficulty in obtaining capital the DFGF in collaboration with NGOs like PIADIC or ICG could provide a viable and sustainable financing (micro-credit) scheme for the sector. Also of variety of other financing mechanisms may need to be investigated in consultation with all the stakeholders including some form of soft loan guarantees, grants and/or equipment leasing and hire. The overall objective will be a long-term, transparent, fair and sustainable financing scheme that ensures adequate debt servicing based on firm business terms and results in the long term sustainability of the scheme.
- To assist with the equitable redistribution of profits from the sale of coltan the DFGF (in collaboration with international coltan traders) could assist in the provision of a fair, equitable and effective marketing system for mineral products through links with the global fair trade movement. The proposed marketing scheme will need to discourage monopoly organisations from controlling the coltan markets and pricing and foster competition among buyers and sellers, to ensure that miners have a number of options for disposal of their output.
- Given the numerous accidents and hazards faced by miners the DFGF could assist in the definition and teaching (not enactment or enforcement) of relevant and consistent health & safety standards and practices.
- In order to minimise the environmental impact of new mines the DFGF could also assist in the establishment and teaching of appropriate and realistic environmental protection practices and principles.

The DFGF must not underestimate the difficulty that they may encounter in trying to lure the miners out of the KBNP. Therefore the DFGF will have to work with other NGOs and possibly the ICCN to create an environment that will attract miners and associated communities to the new mining sites. The DFGF will have to collaborate with local government, institutions and NGOs to help with other problems like access to water and food (e.g. UN World Food Programme) and affordable fuel and electricity, road access (e.g. the proposed UN Chinese road building contract) and facilitate linkages with legitimate and fair mineral buyers. Without these incentives it will probably be impossible to convince the miners to leave the KBNP.

Once the miners have decided to relocate it will be relatively straightforward to identify methods for improvement in their mining and mineral processing techniques. Miners will have a strong incentive to co-operate with such changes providing the DFGF can unequivocally demonstrate that they are likely to increase their output, reduce their physical efforts and benefit financially. Improving productive efficiency offers miners livelihood options. Efficiency can result in additional income that can be used for a number of different livelihoods strategies. Equally efficiency gains may enable the miners to maintain an income level but spend more time with family, on alternative income generation training and strategies, participate in education programmes, etc. It is hoped that the development of new skills outside of mining, based on the long term ambition of finding alternative and more sustainable employment will reduce the likelihood of trained miners returning to the KBNP.



3.4 DFGF - Durban Conference

The DFGF in collaboration with conflict resolution specialists (IPT) have scheduled a meeting referred to as the 'Durban Process' to be held between 19-22 May 2003 in Durban, South Africa. The main objective will be to bring together up to 30 delegates representative of key players in the coltan sector of the Kivus especially in the vicinity of the KBNP. It is hoped that these delegates will gather to decide on the framework for a solution that meets the needs and requirements of all the key players in the crisis.

The proposed list of delegates is included in Appendix III. The objectives of the Durban Meeting are very commendable, however, there are a number of issues that should be considered before embarking on the proposed meeting:

- Due to political situation in the region there may be a dominance of RCD biased delegates (including ICCN) and this situation would not be conducive to a fair negotiation.
- Delegates from the Mai Mai and Hutu militia will face difficulty in transport logistics in leaving the region and travelling to South Africa. In addition, many do not have passports (although it is understood that these can be issued within 2-3 days from the DRC embassy in Kampala).
- It is unlikely that the various military groups will send very senior representatives capable of signing or agreeing to proposals without confirmation from their superiors. Therefore it is questionable what can actually be formally and officially agreed during the Durban meeting.
- Some delegates will request additional security and protection that the DFGF may be asked to fund.
- Regardless of the serious objectives and commitment by the DFGF, many delegates could potentially simply see the meeting as an NGO organised event and therefore simply an opportunity to visit South Africa and have a paid 'holiday' with little intention of any serious dialogue or reaching a mutually acceptable agreement.
- Given the recent alleged MONUC reports that there is a very high likelihood of further instability in the region following the alleged increased activity of the RPA and RCD recruitment in the region and the planned strikes on Mai Mai territory it may be worth postponing the meeting.
- The lead time to invite the delegates and allow them to prepare and make travel arrangements is very short especially in view of the logistical arrangements needed to ensure some delegates can attend. It may be worth delaying the meeting for a couple of months.

In view of the above, and as the overall costs for the meeting are not insignificant, it is questionable whether the funds would be more effectively spent on embarking on a sustainable artisanal mining project as discussed in section 3.3 or at least delaying the meeting.



Figure 12. Lowland Gorilla in the KBNP eating Bamboo (Source: ICCN/GTZ)



Appendix I - Terms of Reference

The Dian Fossey Gorilla Fund (Europe)

A consultancy to support the DFGF's efforts to facilitate the integration of coltan mining and the conservation of Kahuzi Biega National Park and the eastern lowland gorilla

Location: Rwanda (transit) Goma, Bukavu, Kahuzi Biéga National Park in the Kivu Provinces, eastern DR Congo

Duration: 10 days (20-29 March 2003, inclusive)

1. To immediately establish contact with Birindwa Chanikire Solide, Coordinator of Synergy V.I.E. and Oscar Kalimba, President of PADEBU in Bukavu to provide evidence of credibility and facilitate an approach to the miners in Kahuzi Biéga National Park
2. To work, with the assistance of DFGF's project manager, staff and partners in DR Congo, to contact wildlife agencies, government departments, miners, traders, NGOs and businesses involved in the mining industry and/or protected area management in Kivu Provinces, eastern DR Congo, in particular in Bukavu and Goma
3. To pay particular attention to carefully preparing contacts and negotiations - through identified NGO intermediaries - with Mai Mai representatives to obtain permission and assistance to visit coltan mines within Kahuzi Biéga National Park
4. To visit - security allowing - 2 mines within the 'Red Zone' in Kahuzi Biéga National Park
5. To establish contact with and conduct an exchange of views with artisanal miners working within Kahuzi Biéga National Park to determine views on sustainable mining and the value of protected area and World Heritage status.
6. To establish contact with PNKB authorities to determine their views on sustainable mining and the value of protected area and World Heritage status.
7. Together with these contacts, to establish contact with other key stakeholders involved in artisanal mining activities in South Kivu with a view to identifying a representative group of no more than 20 delegates to attend DFGF's meeting in Durban, South Africa, 19-21 May 2003, at which the all proposals will be discussed and considered.
8. To draft a list of delegates, to be approved by DFGF, to attend DFGF's meeting in Durban
9. To draft a report - to be completed by 4 April and distributed by DFGF as the main document for discussion by delegates to the Durban Meeting - which establishes the groundwork necessary for establishing a sustainable mining collective.



Appendix II - Mission Itinerary (Rwanda & Democratic Republic of Congo)

19th March (travel)

14:35hrs departed from Manchester airport

20th March (travel)

13:10hrs arrive at Kigali airport

13:20hrs debriefing meeting with Vince Smith and Henry Chiruzza at the DFGF office

14:30hrs left Kigali and drove with Henry Chiruzza to Goma via Ruhengeri and Gisenyi crossing the national border at 17:30hrs

18:15hrs arrived at Ihusi Hotel and held further discussions with Henry Chiruzza

21st March (Goma)

09:00hrs met Maitre Romeo Materanya (lawyer) at his office and discussed coltan trading

09:45hrs went to RCD (Rassemblement Congolais pour la Democratie) headquarters and met senior ICCN (Institut Congolais pour la Conservation de la Nature) staff including Mr Issac Cifurura (Coordinator of ICCN) and Mr Nyongolo Alimasi (Technical Inspector General of ICCN)

11:00hrs met Mr Nestor Kiyimbi (RCD Minister of Mines) and Mr Bedy Makubu (RCD Minister of Agriculture and Land) and various ICCN assistants and discussed coltan and the KBNP. They expressed a wish to have a dialogue with the Mai Mai to secure the KBNP future and stressed that the ICCN cannot protect park and currently only control around 2km from Tshivanga. They questioned whether MONUC can do something to remove Mai Mai and other negative forces from park to allow ICCN work and intend to send a letter to MONUC on this matter (Appendix VI). They also stressed that MONUC do not promote ICCN's good work on conservation. We requested a list of key delegates for the Durban conference.

14:30hrs met Mr Vital Katembo of DFGF and discussed project ToR and logistics

18:00hrs held further discussions with Mr Issac Cifurura (telephone) regarding our planned visit to the KBNP

17:20hrs met Mr Emmanuel Kanane (*Mwangacucu Hizi International*) medium scale coltan miner/trader near Masisi who employs around 200 miners but have problems with theft (50%) and need to employ workers to watch the miners. *MHI* currently pay miners US\$10/kg. They have no obligation to undertake an EIA or other environmental measures. It should be noted that *MHI* was mentioned in the UN report as a Rwandan company.

22nd March (travel & Bakavu)

06:30hrs left Ihusi Hotel and traveled to Goma Ferry port

08:30hrs departed Goma on *Lady Nadia* ferry

14:00hrs arrived at Bakavu (delayed due to stormy weather in Lake Kivu)

14:30hrs arrived at Hotel Residence and met Dr Bitakuya Dunia (social expert)

15:20hrs quick meeting with Mr Oscar Kalimbe of *PADEBU* (*Plateforme des Associations de Development de Buyakiri*) and arranged further meeting

18:45hrs met Mr Emmanuel Rwgarabura of *ICG* (*International Crisis Group*) and discussed social projects with *GTZ* in Kahale, Shabunda and other locations. *ICG* (act as conduit between *GTZ* and communities) and undertake projects with sustainable agriculture, micro-credit, rehabilitation of schools, roads, etc and trading of crops. Many projects have been selected but few started due to limited funds and security problems. They have been involved in micro-credit in other areas especially for agriculture and small trading. They have also been approached by ASMs but no action yet.



23rd March (Bakavu)

09:00hrs met Mr Oscar Kalimbe of *PADEBU* who represents a network of 25 associations in collaboration with the church with respect to health and civil society for the communities around Bunyakiri. Discussed going to the 'Red Zone' to meet Mai Mai but informed that the RCD may not authorise our return to Bakavu if we traveled north past Tshivanga towards Bitale and Hombo as they may suspect collusion with the 'negative forces'. He also claimed that in area near Walikale there was recent fighting with RCD and last week a UN MONUC member was taken hostage near Hombo. We requested information on coltan and Mai Mai activities in the KBNP.

13:10hrs Mr Fernand Balike of *IPP (Innovation Pour la Paix)* discussed Mai Mai and coltan. He stated that the Mai Mai are protecting the gorillas. Discussed the areas that he had heard are currently controlled by Mai Mai including Katasomwa, Mutale, Rambo, Chitunzi and all areas west and NW of Tshivanga. Mai Mai feel that they cannot work with the ICCN as they are really RCD. He discussed the recent MONUC allegations of incursions from the RPA into the area to finance and control the export of coltan from the KBNP and vicinity. We asked how we could possibly contact General Padiri regarding the representation of Mai Mai at the Durban Conference. He noted the problem regarding passports (possibly issued at the DRC embassy in Kampala within 2-3days) and the logistics and transit of the Mai Mai from the Congo to South Africa. This could be via Uganda?

16:00hrs met Mr Carlos Schuler-Deschryver of *GTZ* and discussed involvement in KBNP. Questioned why DFGF suddenly interested in KBNP after many years and stressed GTZ's involvement for the last 20 years with no gorillas killed in the last 5 years (?). He claimed that the RCD and 'negative forces' have ordered their soldiers not to kill gorillas following *GTZ's* extensive sensitisation programme. He urged DFGF not to promote mining in the park. *GTZ*. Some contradiction noted regarding the inability to control mining activities and the need to eradicate mining from the KBNP.

17:15hrs met Mr Fanetin Bujiriri - coltan buyer discussed buying and trading issues and the fact that all *Négociants* problems come from the *Comptoirs* He currently trades around 5t of coltan per month and works with a group of other *Négociants* who collectively trade around 20t per month and trade at an current average price of US\$70/kg. Asked if he would assist Dr Bitakuya Dunia in selecting a representative from each *Négociant* level and *Comptoir* to attend the Durban conference.

18:15hrs met representative of *APED* discussed social projects with women and Pygmy communities near the KBNP. Funded by 11.11.11 a Belgian NGO.

18:50hrs met Mr Muyeye - coltan exporter with *Gemicom* and discussed buying and trading issues. He stressed that the Congolese were the victims and looser in the coltan business. He mentioned that during the boom the RCD exclusively controlled the export of coltan through the RPA supported Madam Gulamali *Shenimed* company. He mentioned that the price in the DRC has always remained low with respect to global prices and that there has been a misunderstanding by the global community on the DRC's problems and hence European buyers only wish to deal with Rwandan exporters. During the boom he was able to trade around 25t a month although he claimed that this was quickly surprised by the RCD who he claimed took 14t/month (via Madam Gulmali) leaving him only 9t/month

24th March (Bakavu)

08:30hrs again met Mr Issac Cifurura (Coordinator of ICCN), Mr Nyongolo Alimasi (Technical Inspector General of ICCN), Mr Bishikwabo Kaseraka (KBNP Warden) and Mr Mbilzi Wenga (KBNP Assistant Warden)

10:20hrs briefly met RCD Governor and given permission to travel to KBNP but officially instructed that we cannot enter the park at 10:30hrs departed Bakavu

11:50hrs arrived at Tshivanga and KBNP main offices met with other ICCN staff and park wardens and guards and given tour of offices. Informed that in the Highland (eastern limb) of the park only 130 of the per-war 258 gorillas remain. No ICCN patrols in the majority of the park especially the lowland areas where there may be as many as 1,300 gorillas. The guards would like to see all miners expelled from the park as they see them as making money with no benefit to the park. They also stressed the need for more resources to manage the park. Departed Tshivanga at 15:30hrs and travelled back to Bakavu.



25th March (Bakavu)

09:00hrs met Mr John Kahekwa of *Pole Pole Foundation (PoPoF)* an NGO engaged in the protection of the gorillas in the KBNP. Traveled to Tshivanga and around periphery of KBNP and witnessed projects including the Pygmy projects. Currently trained 8 women to sew (shirts @ US\$2 each) and hopes to establish to further splinter groups. Also taught around 26 women to read and write in Swahili. Has helped establish small businesses trading in salt, fish, palm oil, cassava, tea and bananas (no links with fair trade movement). Also working (with DFGF) on a forestation project with around 200,000 trees planted around the outside of the park.



Figure 13. Mr John Kahekwa (POPOF) and Mr Kevin D'Souza (WA) talking with ICCN staff at Tshivanga (KBNP) - 24/03/03

13:00hrs departed Tshivanga and traveled into 'Red Zone' to Lwiro and the Mulunga Research Centre (CRSN-LWIRO) to try and contact Mai Mai representatives, although unable to locate Witnessed makeshift primate sanctuary where chimpanzees (especially infants) and various guenons were being looked after. These animals were confiscated from poachers operating in the KBNP. The centre desperately needs funding and resources and claims to only manage to rescue a small proportion of the animals caught by poachers.

15:00hrs left Mulunga and traveled back to Bakavu although forced to stop in the 'Red Zone' at 15:15hrs for 20 minutes to change wheel due to a puncture

16:00hrs had accident with UN OMS vehicle on main road to Bakavu

18:30hrs left accident site after Traffic Police arrived

26th March (Bakavu)

08:00hrs after meeting with Mr Henry Chiruzza and Dr Bitakuya Dunia we decide that we cannot risk returning to 'Red Zone' due to increased Mai Mai activity even in vicinity of the Malunga Centre and the fact that the RCD stated that it was illegal to enter the KBNP.



08:45hrs met Mr Oscar Kalimbe of *PADEBU* again and agreed on price for the requested information, field visit and photographs.

10:00hrs met Mr Watuta Ibungu Lya Mamba and Mr Mweze Mbula Ngoy ASOPELKA (Association of Economic Operators of Mwenga and Shabunda) representative of miners (76 members) from Shabunda and Mwenga (coltan, gold and cassiterite) and discussed sustainable ASM projects. Discussed the various problems that artisanal miners faced included the claim of confiscation of produce before they can take it to Bakavu, problems with accessing capital, limited training (although some basic training given by an informal organisation), accessing fair markets, numerous taxes from both Government and militia groups, lack of institutional government support, no geological or mining advice. The areas they represent account for nearly 90% of Kivu artisanal mining activity and that the area produced around 100t coltan per month during the boom. At present reduced to around 50t per month. They also claimed that two flights per day each carrying 2t of coltan leave the region to Kavumu airport in South Kivu on onward to Kigali. Discussed the potential to undertake a sustainable ASM project in either Shabunda or Mwenga and they seemed very keen on the idea. We also asked to nominate a representative to attend the Durban Conference.

11:30hrs met Mr Kayonga from the South Kivu Mines and Geology Department and discussed ASM problems and mining in Kivu. Also given official statistics on mineral production (coltan, gold, cassiterite and wolframite). Requested geological and/or resource maps. Only have 10 staff to assist in the region and would be keen to create a regional training centre. Also mentioned that some underground mining occurs in the region. Also discussed their desire to attract large scale mining investment to the region. Dr Bitakuya Dunia to revisit after mission to locate maps and other geological references for KBNP and surrounding area.

14:30hrs met Mr Jean Charles Dei of the UN World Food Programme. Discussed our proposals and informed that the WFP could assist, albeit on a small-scale, if we could show that the threat to the KBNP is also a consequence of food insecurity in the region.

15:30hrs met Mr Remy Mitima of *PAIDEIC* who are involved in micro-credit (some projects with DFGF) ranging from US\$10-700 an averaging around US\$400 at 3% interest). Discussed potential for micro-credit for ASM projects but warned that in the past they did not give credit to miners as they perceived them as high risk.

27th March (Bakavu)

09:35hrs met Mr Charles Ntoy and Mr Toby Harward of MONUC and discussed the security of the region. MONUC informed us of the likelihood of further instability in the region following the alleged reports of increased activity from the RPA in the region including MONUC reports of a massive RCD recruitment drive to create new brigades. MONUC also claimed that the RCD was arming Barega militia groups to assist in attacking Mai Mai in Shabunda (General Padiri). MONUC is expecting RCD to launch attack on Mai Mai and Hutu militia in Walikale, Buyankiri and Shabunda in very near future. We discussed MONUC's objectives to concentrate on DDRRR and once a degree of peace has been established the need to start UN contract issued to the Chinese to rebuild roads throughout the region including Shabunda and Mwenga. Also around 1,500 new South African UN troops to be based in Kindu and Bakavu.

11:00hrs met Mr Olive coltan exporter with *Gemicom* and discussed coltan trading. Also given letter sent by *FEC (Fédération des Entreprises du Congo - Sud Kivu)* to the UN Secretary General regarding the UN investigation into the illegal exploitation of natural resources in Kivu.

13:00hrs collected film and developed coltan mining photos

Dr Bitakuya Dunia had meetings with LUDENGOS (Walungu), Division of Elementary and Higher Education, OLAME Center, APROPU, CDI, Health Division

14:00hrs discussions with Henry Chriuza and on mission



28th March (travel)

06:10hrs left Bakavu and traveled to airport

08:20hrs departed Bakavu on TKM Airways

08:40hrs arrived in Goma and traveled to Ihusi Hotel

11:10hrs left Goma and traveled to Kigali

15:45hrs arrived in Kigali and went straight to DFGF office

17:00hrs went to Chez Lando Hotel

19:20hrs Debriefing meeting with Mr Vince Smith of DFGF



Figure 14. The rich agriculture land near Lake Kivu (Bakavu)

29th March (travel)

Morning free

15:45hrs left Kigali for airport

18:05 departed Kigali and arrived in Manchester Airport 09:45hrs on the 30th March



Appendix III - Proposed List of Delegates for the Durban Meeting

1. *IPT Representative - ??
2. *IPT Representative - ??
3. DFGF Representative - Mr Greg Cummings
4. DFGF Representative - Mr Henry Chiruzza
5. *DFGF Representative - ??
6. ASM Consultant - Mr Kevin D'Souza
7. GTZ Bukavu Representative -Mr Carlos Schuler-Deschryver
8. *UNDESA Senior Advisor - ??
9. *IUCN/WCPA Representative - ??
10. *DR Congo Ministry of Natural Resources Representative (Kinshasa) - ??
11. *DR Congo Minister of Environment Representative (Kinshasa) - ??
12. RCD Minister of Mines - Mr Nestor Kiyimbi
13. RCD Minister of Agriculture and Land - Mr Bedy Makubu
14. ICCN Coordinator - Mr Issac Cifurura
15. Chief Warden KBNP - Iyomi Iyatshi

16. *Pole Institute Representative - ??
17. PoPoF/Representative from Kabare Territory - Mr John Kahekwa
18. **Pygmy Representative - ?? (APED)
19. Artisanal Miners Representative (Shabunda/Mwenga) - Mr Mweze Mbula Ngoy
20. Artisanal Miners Representative (Bunyakiri) - Mr Lufaranga
21. PADEBU Representative - Mr Oscar Kalimbe
22. **Mai Mai Representative (on behalf of General Padiri) - ??
23. IPP/Representative from Kalehe Territory - Mr Fernand Balike
24. Representative from Walikale Territory - Prof. Kaningini
25. Representative from Shabunda/Mwenga Territory - Mr Watuta Ibungu Lya Mamba
26. *H.C.Starck Representative - ??
27. *H.C.Starck Representative - ??
28. *Global Compact Representative - ??
29. *BIAC/OECD Representative - ??
30. **Local Négociants Representative - Mr Fanetin Bujiriri
31. Local Comptoir Representative - Mr Muyere (Gemicom)
32. Fédération des Entreprises du Congo (Sud Kivu) Representative - Mr Olive Mudekereza
(also Walunga Territory Representative and Gemicom)

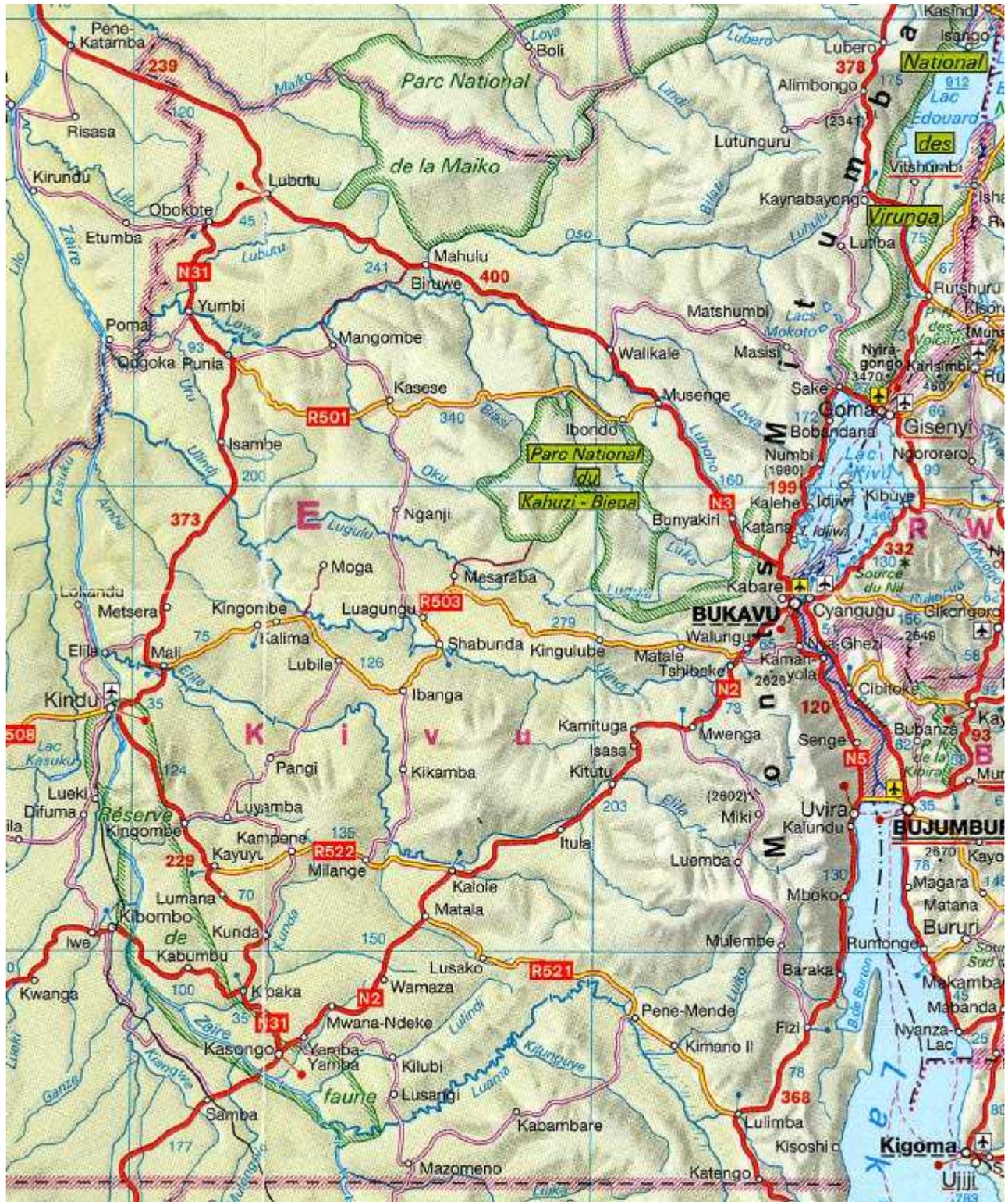
* The DFGF to advise on representative

**Dr Bitakuya Dunia/Mr Henry Chiruzza still to identify suitable representative



Appendix IV - Regional Map of the Kivus in Eastern DRC

(Source GeoData, RV Reise-und Verkehrsverlag, Munich, Stuttgart, Germany)





Appendix V - Social Assessment of Territories Surrounding the KBNP

Prepared by Dr Bitakuya Dunia (translated and edited by Henry Chiruza and Kevin D'Souza)

A. Bunyakiri

With an area of 4,500 km² Bunyakiri extends from 23° 84' 54" to 28° 52' 18" of longitude East and from 1° 51' 2" to 2° 20' 42" of latitude south. It shares its borders

- In the North with Walikale territory
- In the East with Kalehe and Masisi territory
- In the south with Kabare territory
- In the west with Shabunda territory.

Annexed from Kalehe territory in September 1994, this territory has an altitude relief (800m to 3000m) which is naturally hilly. It has a rich river network drained by Luowo and Lowa rivers. Bunyakiri vegetation is dominated by equatorial forest inhabited by many species of fauna mainly ungulates and many primates. That forest is progressively disappearing and giving way to a grassy swamp.

Socio-economic problems

The socio-economic fabric of Bunyakiri territory has been severely damaged since 1990 owing to tribal wars, the two wars of liberation (1996 and 1998) with the following consequences :

- Local communities have been displaced towards urban centers with young people quitting schools and joining the Mai-Mai or other militia groups.
- The active population has decreased and many villages have been abandoned as houses have been destroyed.
- The Mai-Mai, controls the majority of the territory and a large part of KBNP (more than 95 %)

Schools, health centres and even churches have been destroyed. More than 61 elementary schools, 20 high schools, 36 health centres need to be reconstructed. For a population of 248,828 people before the hostilities, the social infrastructure is in a desperate state needs. There is also a need for demobilization of the young people who were recruited willingly or unwillingly in to the various military or militia groups

In addition there are also a large number of young adults active in mining inside and outside the KBNP and others who have preferred to migrate to urban areas where they contribute to increasing the number of unemployed people. In a search for solutions to the social problems of Bunyakiri territory it would be better to create or initiate activities which can attract those people to their native villages.

Bunyakiri is an agricultural region where in the past agriculture dominated the economy. Food producing activity is the only income generating activity of any significance, although farming methods and especially trading organisation needs to be improved. Bunyakiri produces cassava, bananas, groundnuts, corn, beans and yams. Bukavu town was traditionally provided with food from this territory but roads linking the two areas are now insecure. The main road to Kisangani is paved to Hombo but the secondary roads thereafter are substandard.

Pastoral farming has been eradicated in the Bunyakiri region since all the farms were looted during wars and livestock confiscated. However the area is appropriate for cattle, pig and small livestock breeding. This activity must be restored as soon as possible to reduce the local communities demands on the KBNP in their search for meat.



Family based fishing was successfully practiced in Bunyakiri territory in the 1980's, which motivated the creation of COOIBU (Cooperative of Fish Breeders of Bunyakiri). This activity needs to be restarted for the same reason mentioned above.

Bunyakiri also hosts deposits of gold, cassiterite, coltan and amethyst, which induce people to practice artisanal mining exploitation. But at present the main mines are occupied by armed militia groups.

As far as development is concerned current political situation has resulted in a decrease in local development initiatives that work jointly with social welfare development NGO's in the region. In addition, lack of funds, social and political turmoil have reduced the development NGO's affirmative action in the field. The following development's NGO operate in the area:

- APIDE
- BDD (Development Bureau)
- COOCEC-KIVU, COOIBU (Cooperative of Fish Breeders in Bunyakiri)
- BDOM (Association of Bunyakiri motives)
- PADEBU
- Anti-bwaki, (anti-malnutrition), ASOP
- SIBU (syndicate of Bunyakiri initiatives)

Only BDD, BDOM and PADEBU are still operating in the area but their actions are limited by lack of funding.

B. Shabunda

With an area of 25,216km² this territory extends between 27° and 28°24' of longitude East and between 20° and 40° of latitude south. It has a topography composed of plateau, hills, mountains, and valleys in which flow many rivers such as the Elila, Kama, Ulindi and Lugulu Rivers all of which flow to the Congo River. Shabunda territory has a tropical climate with two major seasons between which there is a short dry season. The dry and hot season lasts from June to September and the long cold and rainy season from March to June and from September to December. The vegetation in the region is mainly primary forest and secondary forest.

Shabunda soil is sandy and clayey and its subsoil has traces of gold, cassiterite and coltan. The exploitation of these mineral resources has lured young people away from school and farming. The ground is fertile and suitable for agriculture, however, the sector has been neglected in favour of the mining.

Shabunda population is 598,355 with an average density of 20 persons/km². It is predominantly constituted of a single ethnic group the Rega.

Socio-economic problems.

Socio-economical problems of the Shabunda territory are to a large extent related to its location and its physical environment. Shabunda territory had 189 elementary schools, 69 high schools and 66 health centres. Most schools were built from local materials that were not durable. Consequently, many perished during recent wars. Attendance at school is very low as the population has been dispersed over the territory combined with the fact that parents can hardly pay the fees. Low attendance at school is also due to the fact that children lose interest in studies at their early age and prefer to commit themselves to mining in search of an easy life. There is also a lack of qualified teachers again due to the lure of mining. Many of the existing health centres have been destroyed or are not sufficiently equipped. There is a severe shortage of medicines and qualified medical staff. STDs and malnutrition are major problems in the area due to food insecurity problems and militia presence.



Catholic and Protestant churches are predominant but they have limited effects on local communities that are dominated by Rega culture in which young girls and young boys must undergo a traditional initiation into life.

Before the liberalisation of mining activities, agriculture was the main economic activity. However, since the war and the coltan boom only subsistence agriculture is practised. Most young people prefer to mineral resources. Rice and groundnuts are the main crops but production is very low.

When the *SOMINKI* mining company was closed, mining exploitation was liberalised. This resulted in the majority of the population turning to mining for employment. The absence of the large scale mining company resulted in fewer job opportunities and increased unemployment in the area leading to a rural exodus.

In Shabunda territory roads have become unsuitable for heavy traffic especially after the close of *SOMINKI* which maintained the main access road. Only some 'tracks' and airfields make the transport of mining produce possible in small planes. During the coltan boom air traffic was heavy and was very profitable to various military and militia groups rather than the local population.

With respect to development in the area, only the Catholic church, Berean Churches Community in Congo (CEEBCO), Christian Churches Community in Africa (CELPA), Pentecostal Churches Community in Congo, Maniema Kivu Free Community and the Development NGO's such as AKADOSHA, ACOSHA, BIN BERGER, IGEDEKA, PAR work in the region.

Unfortunately, the decrease in the price of coltan has reduced the initiatives of many of these NGOs. The associations active in the region and that are interested in infrastructure and roads do not have funding and so the area remains isolated. Many claim that it would be useful to organise the miners and the merchants in to an association in order to minimise the pressure they exert on the KBNP. Opening the main road would facilitate supplying the area with much needed food and other tradable goods.

C. Kahehe

With an area of 2,454km², Kalehe territory originally included part of Bunyakiri territory. The general topography of the region includes a high plateau, plains, marsh valleys (1450m-4000m of altitude). It shares its borders in the North with Masisi territory (North-Kivu province), in the south with Kabare territory, in the west with Bunyakiri territory and in the East with Lake Kivu. Kalehe territory has many rivers, some of which constitute the regions borders with neighbouring Kabare territory (Nyabarongo River) and with Masisi territory (Kyungiri River). The territory has an agro pastoral farming traditional. The region also host deposits of gold, cassiterite and coltan.

Kalehe territory shares borders with KBNP in the North West part where considerable local community pressure is exerted owing to the local's search for bushmeat, firewood, and more recently minerals. With the arrival of Rwandan refugees the high plateaus were decimated and stripped of vegetation causing serious erosion especially during the rainy seasons.

Socio-economic problems

Kalehe territory's social fabric has been seriously disrupted firstly with the influx of the Rwandan refugees and then later during and two liberation wars. Kalehe territory hosted more than 100,000 Hutu refugees in Lwako, Kabira and Nyabibwe refugee camps. This huge influx of people resulted in severe environment damage in the area and a destruction of social infrastructure of the region.

Kalehe territory had 124 elementary schools, 30 high schools and 13 health centres. More than 60 % of the schools inside the territory were destroyed by Rwandan refugees. After the refugees were dispersed by RPA during the first liberation war in 1996 attempts were made to rehabilitate



some of the schools, however the second liberation war broke out in 1998 and halted progress. The few remaining schools were damaged during the earthquake that hit the area in 2002.

There are very few health centres remaining in the region. The few health centres located along main Bukavu-Goma road which resisted the disruptions are now faced with a number of difficulties including lack of material equipment, shortage of pharmaceutical products and lack of qualified medical staff. Displacement of the population from the plateau region has caused the communities to gather along the road that is likely to result in food insecurity.

Lake Kivu borders the Eastern part of Kalehe territory but transport on the lake is only by small local canoes. Since the population has been stripped of its pastoral resources, the low income of the regions inhabitants prevents them from being able to afford the fare for a motorboat crossing.

Kalehe was an agro-pastoral territory, but continuous looting, and destruction of the infrastructure related to the presence of military and militia groups in the high plateau have reduced agricultural production. Food producing cultivation (cassava, beans, groundnuts, corn, etc.) is currently not practised in traditional farming areas along the lake and the road. The ground has now become unproductive and will require the use of fertilisers or allowing it to lay fallow for some years before agriculture can be resumed. The industrial cultivation of coffee, tea and cinchona have lost their market value and hence reduces the local population's purchasing power. Fishing is possible on Lake Kivu but this activity is limited due to lack of appropriate equipment.

Mining exploitation in Nyabibwe (cassiterite), Numbi (coltan and gold) and at Nyawarongo (gold) have kept the artisanal miners occupied, However, the mines are not profitable for local population as the mines are owned by militia groups.

Mineral trading is also weak because of the continuous looting by armed groups especially from Rwanda. The location of the territory in the vicinity of Mai Mai controlled areas of Bunyakiri causes friction between the population and RCD political authorities. The population finds itself caught in a stranglehold and hence becomes demotivated to conduct any income producing activity for fear of confiscation.

Local Catholic and Protestant churches attempt to assist with alleviating poverty. Local development branches (BDD, CARITAS, ASUP and CAPA) also try to help the local communities. Local development initiatives (CDI, APPROPEKA, GALE, ADEM, CADRE, etc.) are often lacking logistical assistance because many development NGO's fear insecurity in the region. Nevertheless, development NGO's such as CAB (Anti Malnutrition Committee), OLAME Centre, IRC and PODOM are trying to intervene in specific programmes but their action still require further funding and assistance.

Owing to the high degree of local poverty and the lack of NGO funding for the development of local initiatives, it would be useful to initiate a mining project in the area in order to provide the population with employment and the potential for a sustainable livelihood.

D. Kabare

With an area of 1769 km², Kabare territory extends over the south western border of the KBNP. It shares its borders in the south with Bukavu town and Walungu territory, in the North with Kalehe and Bunyakiri territory, in the west with Wulungu territory. Kabare territory has a undulating hilly relief (1450-3300m). It also hosts some streams and rivers that flow into Lake Kivu. It has a population of about 444,867 inhabitants that are heavily concentrated in the vicinity of KBNP



Socio economic problems

The population's current social situation is affected by its proximity to both Bukavu and KBNP. The social infrastructure in the territory has been damaged as the territory offered refuge to a large number of Rwandan Refugees. During the first liberation war some schools were destroyed together with some health centers. Looted by many armed gangs there is no very little of the existing government infrastructures remaining.

Kabare territory has 156 elementary schools, 57 high schools with an overall number of 118,723 pupils out of 444,867 inhabitants. Kabare territory has around 28 health centers, of which only 3 have an extended vaccination program. The existing schools and health centers do not have appropriate material or equipment and many are built of inappropriate or durable materials. Because of the over population these existing health centers are unable to cater for the population's actual needs. Qualified medical staff are rare, as many are still wary of insecurity and treat of violence; educational and medical supplies are also rare. This is in addition to the fact that of low population income and high unemployment.

Kabare territory had an agricultural based economy especially in the northern region. However, its high population density reduces the available land allocated to agriculture. The central and south part of Kabare territory is not appropriate for agriculture. Hence, malnutrition is a common problem in the territory while sanitation problems are also a serious issue. Unemployment induces the active population to enter the KBNP for hunting, foraging and increasingly mining. Unfortunately the drastic drop in the price of coltan has forced many young people to join armed groups (Maii Mai or Mudundu 40).

During the rainy seasons transport is difficult as the secondary roads are not maintained or graded. Trade is limited to the sale and purchase of basic products as the majority of household's incomes are very low (approximately US\$10 dollars monthly).

In their effort to supplement local development efforts, many developments NGO's encourage local initiatives. Within the territory CAB (Anti Malnutrition Committee) are active, GTZ are conducting a project in the agricultural sector, animal breeding and the improvement of housing facilities; BDOM and OLAME have formed centres for nutrition and women's training. POPOF, ICCN/GTZ assists the neighbouring population with road maintenance and micro credit schemes. Also the CAPA 9 Artisanal Training center assists local craftsmen.

E. Walungu

With an area of 2,046km square, the Walungu territory is bordered by the KBNP in the South-East. The Western region it is bordered by the Shabunda and in the Northern region it borders Bunyakiri and Kabambare. The Ruzizi river also constitutes the Southern border with Rwanda. Walungu has a mountainous climate although it many plateaus and hills are bare due to frequent erosion. The mountain climate is influenced by the altitude with a two month dry season and a rainy season lasting more than eight months.

Socio economic problems

As for all the south Kivu rural territories Walungu has witnesses a massive deterioration in its social fabric. The severe poverty that the majority of the population lives in and the insecurity have prevented the territory to rehabilitate its social infrastructures. This problem is compounded by the fact that the region has not inherited any money from the state. In Walungu, there are 157 primary schools, and 50 high schools of which the more half are built of inappropriate and non-durable materials. All the schools have no equipment (desks, benches, blackboard, etc.). The lack of qualified teachers is another reality resulting in all the schools being dysfunctional. However, the number of pupils is higher than the number in the other rural schools. Walungu has 39 health centres of which 34 have a substantial vaccination program.



However, with such a high population density (127 persons/km²), the lack of medical equipment, or medicines and the very low income of the population combine to limit the development of the region. The malnutrition and the unemployment constitute other serious problems in Walungu. As a result much of the population has fled to Bukavu where they are currently concentrated.

Agriculture was the main sector of activity, but the areas suitable for cultivation have been reduced and the soil is poor due to erosion and inappropriate farming practices. The soils desperately require fertilisers or a change of farming technique away from cassava, beans, potatoes and soya. In the past quinquina was the most cultivated crop but the selling price was low and thus discouraged the population from growing it. Some pastoral farming was practiced in a traditional manner but the insecurity and theft of livestock have stopped this. All the roads (main and secondary) are not easily negotiable especially during the rainy season and are in a desperate need of maintenance. The commerce is limited to the trade of basic products only.

To accompany the local initiatives for the development the Catholic and Protestant churches have mobilised their services: BDOM in the health domain, l'ASOP in the farming and animal breeding with (CAB).

In addition, the SODEN MULANGANE, BEM/NGWESHE, SINYA also assist in the cultural sector, communication, education, training and building. All these associations lack logistical means and have had their funding interrupted due to the war. It would be highly beneficial to sustain these productive activities as the micro credit, animal breeding, trading, brick making may halt the rural exodus and discourage the youth from entering the mining sector as a result of lack of money or job/educational opportunities.

F. Walikale

This territory has an area of 23,475km². It the south it borders the KBNP, in west by the Maniema and the Oriental provinces, in north by Lubero territory and in East by the territories of Rutshuru and Masisi. Inhabited by the tribes Nyanga, Kano, Tembo and Mbuti (Pygmies), its population is around to 456,592. (19 persons/km²). Unlike many other areas it is not over populated. A forest covers a major part of the region.

Socio economic problems

Bisected by the Bukavu-Lilangeni road, the territory of Walikale has a scattered population around small centres forming small villages along the roadside. The schools and the health centres are not regularly supplied especially since the beginning of the insecurity in the forest regions (the statistics have not been renewed in the last five years). However, the schools and health centres, that still exist, are not built with durable materials and have no equipment for pupils and teachers. In addition, qualified teaching staff simply do not exist. For instance in Walikale town (2km²) there are two primary schools, three high schools, two universities and one hospital. The Protestant churches have a greater presence in the area, followed by the Catholics and the other small churches scattered in the villages.

Many of the rural roads are not negotiable during the rainy seasons and need regular maintenance. It is difficult to transport the agricultural products (oil, rice, cassava) to urban centres. Formerly, the trade of timber was very dominant between Walikale and the North-Kivu headquarters (Goma) but due to the insecurity, this business had virtually ceased. In Walikale, there are numerous artisanal gold, cassiterite mines and coltan mines. But, the native population does not benefit much from the exploitation of these products. Much of the agricultural areas have been abandoned to the women and to the old people as the youth have opted to seek their fortunes in the mines.



The level of the STDs is very high in the area. The development of this region has been hampered by the insecurity combined with the fact that many of the organisations involved in development are limited by the difficult access especially during the rainy seasons. The development of Walikale territory can only be achieved by improving the Goma-Pinga-Walikale road allowing the population access to markets from Bukavu to Kisangani. During the coltan boom many small airplanes landed on the main Bukavu-Kisangani road.

G. Schools

Territory	Primary schools		Secondary schools		Schools Pupils	Total Population.
	No.	Pupils	No.	Pupils		
KABARE	156	45,686	57	73,037	118,723	
KALEHE	124	36,889	30	5,253	79,028	
WALUNGU	157	49,074	50	7,285	56,359	
SHABUNDA	189	2,701	69	732	3,433	
BUNYAKIRI	61	-	20	-	-	
WALIKALE	-	-	-	-	-	
MWENGA	160	33,609	32	4,212	37,821	
TOTAL	847	167,959	258	90,579	295,364	

H. Health Centres

In the south-Kivu region, the distribution of health centers is not based on the administrative division but on the population spatial distribution and the communication facilities. South-kivu province is divided into 14 medical zones.

Medical Zone	Covered Population	Density (persons/km ²)	Health Centers	Existing	Health Center
BUKAVU	753,899	12,505	50	27	25
BUNYAKIRI	248,828	56	36	28	21
FIZI	179,497	16	44	33	33
IDJWI	166,429	537	23	21	21
KABARE	146,163	585	17	17	13
KATANA	350,208	374	33	33	30
KAZIBA	205,441	263	30	16	16
LEMERA	169,127	161	21	21	21
MWENGA	349,134	30	66	30	30
NUNDU	205,520	30	44	16	13
NYANGEZI	135,450	257	116	44	20
SHABUNDA	598,855	20	116	66	12
UVIRA	52,854	285	42	30	24
WALUNGU	444,063	217	43	39	34
TOTAL	4,480,468	-	681	421	337



Appendix VI - Letter from ICCN to MONUC

MEMO A L'INTENTION DE LA MONUC SUD-KIVU

De: Coordination Nationale de l'Institut Congolais pour la Conservation de la Nature (ICCN)

A: Responsable des Affaires Humanitaires/MONUC Sud-Kivu

Concerne: **SOS pour les Gorilles du PNKB**

I. INTRODUCTION

Les Gorilles de plaine du Parc National de Kahuzi-Biega vivent depuis plusieurs mois dans le stress causé par les bandes armées qui les empêchent de se mouvoir dans leur habitat naturel. Ils ne sont plus suivis convenablement par les Gardes-Parc sensés faire le travail journalier de monitoring. Le Parc National de Kahuzi-Biega étant un Site du Patrimoine Mondial depuis 1980, pourra-t-il continuer à être détruit au fil des jours au vu et au su de tous et surtout de la communauté internationale?

II. COMMENTAIRE

Il y a 100 ans depuis qu'il y a eu découverte des Gorilles au monde. Les Gorilles ont permis par leur qualité d'animaux phares le développement des pays dans lesquels ils se retrouvent grâce aux recettes générées par leur visite. Maintenant, il s'avère que le nombre de ces primates a sensiblement diminué suite à la destruction de nos écosystèmes par la succession des guerres en RD-Congo et la présence des réfugiés rwandais dans cette Aire Protégée depuis 1994. Il y a quelques années le nombre des Gorilles au monde était de 650, mais aujourd'hui il en reste peut-être la moitié.

Les Gorilles du Parc National de Kahuzi-Biega vivent une situation qui risque d'occasionner un écocide (mort d'animaux) si on y prête pas attention.

III. RECOMMANDATION

Même si la mission de la Monuc en RD-Congo est purement d'observation, nous osons croire que cette dernière est l'œil de la communauté internationale, le Parc National de Kahuzi-Biega étant un Site du Patrimoine Mondial.

Considérant que la Monuc ayant libre parcours sur tous les territoires de la RD-Congo, ayant la possibilité d'arriver à Bunyakiri, bastion des Mai-mai et Interahamwe, ayant élu domicile dans le Parc ; y a-t-il moyen de les rencontrer pour leur demander de reculer à plusieurs kilomètres de Saba-Saba (7 km de la Station de Tshivanga) pour permettre à ces primates(Gorilles) de se déplacer à la recherche de leur nourriture.

Nous attirons l'attention des Amis de la Nature, les écologistes du monde entier, afin que cette espèce en voie de disparition puisse survivre à jamais.

Si les Mai-mai reculaient de plusieurs kilomètres, les Gardes-Parc pourront vaquer normalement à leur occupation. Si une fois ce geste exécutée, la Monuc aura indirectement protégé la nature et le peuple Congolais en sera très reconnaissant.

Nous devons protéger sans faille notre nature et tout ce qu'elle regorge (faune et flore) car à son tour elle (nature) va protéger aussi les vies humaines et son environnement.



Nous devons par conséquent accepter de mourir pour ce Site du Patrimoine Mondial car celui-ci est un héritage que nous ont légué nos aïeux pour les générations futures.

Fait à Bukavu, le 26 mars 2003

LE COORDONNATEUR NATIONAL DE L'ICCN,

Isaac CHIFURURA KASHAMVU

CC. : -Président du RCD
 -Secrétaire Général/RCD
 -Dépt.de l'Adminter./RCD
 -Dépt.Rel.Extérieures/RCD
 -Dépt.Agri&Dev.Rural/RCD
 -Dépt.des Mines et Géologie/RCD
 -Dépt.Communication et Presse
 -Gouverneur de Province/Sud-Kivu
 -Gouverneur de Province/Nord-Kivu
 -Chef de Site du PNKB
 -Chef du PNKB
 -Conseiller Technique Principal/GTZ-Bukavu
 -UNESCO/Paris
 -Siège de la GTZ/Allemagne
 -AAA/Allemagne
 -Annette Landjouw
 -J.P. D'Huart
 -Dr Kes Hilman Smith
 -Emmanuel Demerode
 -Marcus Borer
 -Guy Debonnet
 -Marc Langy
 -Mme Noor
 -Mr Hertel
 -Mbake Sivha
 -Bisidi Yalolo
 -WCS
 -PPP
 -DFGF/Europe
 -RGT
 -Patrick Mahlman
 -Veronique Tshimbalanga
 -Kevin D'Souza