

# **The Democratic Republic of Congo**

## **Ashanti Gold Kilo Corporation's Mongbwalu Gold Mine Project**

### **“A Social and Environmental Reconnaissance”**

**Revised: July 2009**

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## Abbreviations and Acronyms

|          |  |
|----------|--|
| AGK      | Ashanti Goldfields Kilo                                      |
| APC      | Congolese People's Army                                      |
| CIAT     | Committee for the Support of the Transition                  |
| CAFOD    | Catholic Fund for Overseas Development                       |
| CdC      | Centers for Disease Control                                  |
| DRC      | Democratic Republic of Congo                                 |
| EA       | Environmental Assessment                                     |
| EITI     | Extractive Industries Transparency Initiative                |
| EMP      | Environmental Management (or Action) Plan (Part of the ESIA) |
| ESA      | Environmental and Social Assessment                          |
| ESIA     | Environmental and Social Impact Assessment                   |
| ESHIA    | Environmental Social and Health Impact Assessment            |
| FAPC     | People's Armed Forces of Congo                               |
| FARD     | Armed Forces of the Democratic Republic of Congo             |
| FNI      | Nationalist and Integrationist Front                         |
| FPIC     | Free, Prior and Informed Consent                             |
| FRPI     | Patriotic Force of Resistance in Ituri                       |
| ICC      | International Criminal Court                                 |
| IIA      | Ituri Interim Administration                                 |
| IFC      | International Finance Corporation                            |
| ILO      | International Labor Organization                             |
| IMF      | International Monetary Fund                                  |
| ILO      | International Labor Organization                             |
| MLC      | Congolese Liberation Movement                                |
| MONUC    | UN Organization Mission in the DRC                           |
| OECD     | Organization for Economic Co-operation and Development       |
| OKIMO    | Office of Mines of Kilomoto                                  |
| PoE      | Panel of (Social and Environmental) Experts                  |
| SAESSCAM | Assistance Office for Artisanal and Small-Scale Miners       |
| SIA      | Social Impact Assessment                                     |
| ToR      | Terms of Reference   |
| UN       | United Nations   |
| UNICEF   | United Nations Fund for Children                             |
| USAID    | United States Agency for International Development           |
| UNDP     | United Nations Development Program                           |
| UNEP     | United Nations Environment Program                           |
| WBG      | World Bank Group   |

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# **1. Introduction**

## **1.1 Purpose of this Report**

The purpose of this report is to predict, in a general way, the more important social and environmental impacts that could occur when AGK's Mongbwalu gold mine begins operation. The report is designed to help anyone who may be impacted by this gold mine to understand the impacts, and what may be done to prevent or minimize them. AGK expects permission from government to begin the project any day now. One of the first steps after receiving government permission that AGK will take is to get an "Environmental and Social Impact Assessment" (ESIA) process going.

ESIA is a complicated and lengthy process. This report is designed to help potentially impacted civil society to understand the ESIA process, and especially how civil society can ensure that all serious impacts are prevented and all lesser impacts are minimized or fully compensated. The report outlines the rights, opportunities and responsibilities that civil society has during the ESIA process and during operation of the mine when the measures to reduce impacts are implemented. In addition, the report will help the company that AGK selects to undertake the ESIA process. In technical terms, this report is akin to an environmental and social reconnaissance-level study that can feed into the Scoping Phase of the ESIA. This report should be read in conjunction with the publication of Professor Jean Paul Basegere.<sup>1</sup>

**1.2 What is AGK?** After 1967, Okimo Corporation's gold production around Mongbwalu declined. After decades of "illegal" artisanal gold production, President Mobutu passed the 1978 decree permitting artisanal gold mining, which led to a major influx of migrants which soon outnumbered the original Nyala indigenous people, who are less interested in gold mining. In 1998 Ashanti bought much of Mindev's Kimin shares, while changing its name to Ashanti Goldfields Kilo (AGK). So, as of 1998, AGK owned most of Concession 40, which specifically includes the 2000 sq km area around Mongbwalu -- the focus of this report. In September 2001, President Laurent Kabila confirmed and augmented the AGK joint venture, granting it rights to all of Concession 40, an area of 8000-10,000 sq km. This concession reached Lake Albert to the east, including Bunia and Mongbwalu, and extending northwards and westwards (See map #).

In 2003, FNI's self-styled President, Floribert Njabo, granted permission to AGA to work in the Mongbwalu region because government control did not reach Mongbwalu at the time, neither did the power of the interim assembly of Bunia. With the support of FNI and its President Njabo, AGA began in earnest in Mongbwalu. As security was the over-riding issue, AGA contracted with ArmorGroup International Ltd to protect AGA staff and offices, from 2003 or 2004.

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<sup>1</sup> Basegere, J-P. 2008. Rapport d'enquete etude d'impacts environnementaux de l'exploitation artisanal de l'or en Ituri. Bunia, Organization Concertee des ecologists et amis de la nature antenne de L'Ituri OCEAN: 38 p.

In 2004, Ashanti merged with AngloGold<sup>2</sup>. As soon as the provisional DRC government was installed in Kinshasa in June 2003, competition for gold concessions heated up. By September 2004, at least eleven mainly South African mining companies had signed contracts with Okimo to explore or mine gold in Northeastern Congo. Okimo has exclusive mining rights to 83,000 sq km. Concession 40 consists of 8,191 sq km around Mongbwalu, former home to the former Belgian mines of Makala and Sincere, and the now defunct Adidi mine near Saio.

The war between November 2002 and July 2003 destroyed most mining infrastructure. In 2007? AngloGold divested itself of all AGK shares. Most of Congo's mining contracts were negotiated and signed under unreliable circumstances during the six-year war (1998-2003) or during the subsequent three-year transition, in which rebels and government loyalists govern the country in the run-up to elections. Many of those contracts are being criticized as being irregular. As of early April 2007,<sup>3</sup> President Joseph Kabila's administration announced it would review about 61 mining contracts. This review of mining permits was initially estimated to be completed within six months, but this has yet to be achieved. Congo's vice-minister of mines Victor Kasongo stated that a "brief and open" appeal process will be created to enable fast track renegotiation.<sup>4</sup>

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<sup>2</sup> AGA is the seventh largest gold producer in the world. In 2007 for example, it produced 5.6 million ounces of gold, and employs 61,600 people in 20 mining operations in 10 countries.

<sup>3</sup>Mines Minister Martin Kabwelulu Labilo took office on 5th. February 2007. On April 20th, he set up an InterMinisterial Commission to review all existing contracts. "The minister ... instructs state administrators of the mining sector to suspend until fresh instructions all negotiation on new partnerships until after the government has launched a review procedure for existing contracts," Mines Minister Martin Kabwelulu, March 27, 2009 memo. The president of the World Bank, Paul Wolfowitz, expressed his support for the renegotiation of mining contracts during an interview with De Standaard in Brussels in mid-March 2007. "The Congo has a new democratically elected government. This new government should review the [mining] contracts on a case-by-case basis in order to maximize benefits for the population. If it is revealed that the contracts are illegal, they are void. If the clauses of the contracts are unfair, the government should weigh the possibility of improving the clauses against the long term need to attract investment," said Mr. Wolfowitz. The Congolese Publish What You Pay coalition responded to the ministerial decree, criticizing the absence of civil society representatives on the commission. [=Hyperlinks for the full text of the [April 20th decree](#), the [April 21st article in Le Potentiel](#) and the [statement of the Congolese PWYP Coalition](#).]

<sup>4</sup> In November 2007, Newswires Reuters and Bloomberg reported on a leaked preliminary draft of the Commission's report, saying 37 of the 61 contracts under review need renegotiating while the other 24 should be terminated. "The speculation is not based on any official document, but on a leak of an early draft from within the Commission. The government deplores the leaking of this draft and the uncertainty that it has understandably created," Kabwelulu said in a statement. In December 2008 Vice-Minister Kasongo announced that the government's review of the 61 mining permits had been completed, although some mining companies appear not to have been informed as yet. On 27th. March 2009, Mines Minister Martin Kabwelulu Labilo announced the completion of its mining contracts review process. "A final report on the review will be published very soon." Deputy Mines Minister Victor Kasongo 24 April 2009 cast doubt over whether the two-year review of 61 contracts was complete when he said offers made by companies including Freeport McMoRan Copper & Gold Inc. and First Quantum Minerals Ltd. were "sub- standard" and had been rejected by the government. Kasongo's comments came after Mines Minister Martin Kabwelulu said last month the process had ended.

The 2007 mining permit review commission submitted its report and recommendations to the Ministry of Mines in November, 2007 and was published in March, 2008. The Commission recommends that two-thirds of the contracts should be renegotiated and one-third should be cancelled.

### **Map 1: AGK's 8,191 Sq Km Concession No. 40**

**1.3 What is the Mongbwalu Mine Proposal?** AGK began exploration in Concession 40 in January 2005 as soon as the war started to abate. As mentioned above, many contracts were signed by the wrong officials, or by officials who were replaced soon after signing. In April 2007, the government suspended all corporate gold concessions in the country in order to verify their legality and appropriateness. This suspension was expected to last for three months. As of the writing of this report (June 2009), the suspension remained in force. This means AGK cannot begin the c.12-month pre-feasibility study which narrows down which of the explored potential sites will be taken up first for exploitation. After the Prefeasibility stage normally comes a 12-24 month Feasibility study to ascertain the details, layouts and schedules of the first site or two to be exploited. Feasibility studies may overlap with the Prefeasibility study. Clearly, under such uncertainties, AGK cannot specify details of their expected operation. Even so, a few facts are beginning to be used as rough rules-of-thumb, although all are tentative and strongly subject to change.

Of AGK's six most likely sites listed below, the nearest to Mongbwalu town and AGK's offices may be exploited first. Normally, in similar cases, the project starts off as an opencast pit. Opencast can be exploited faster than underground mining, hence cash flow can pick up fast depending on the price of gold which is near historic highs right now (June '09).

An initial pit about one kilometer long, by 800 m. wide, and 250 m. deep seems likely. A couple smaller pits may then be opened. Before that, lateral tunnels are likely to be opened from the main big pit to tap the richest ores directly.

## **2. Current Status of Environmental and Social Precautions**

As of the date of working on this report (June 2009), AGK had already made a start in addressing social and environmental priorities. AGK's environmental director, Dr Joseph Chiota, has been appointed in Johannesburg and has yet to visit Mongbwalu. No exploitation had started although explorations have been on-going around Mongbwalu for a couple of years (When did exploration begin at Mongbwalu???). AGK's Physician, Dr. Seydou Nsundi, has been charged with starting up AGKs environment and social work.

In an undated 5-page document, probably from 2007-8, entitled: "AGA DRC Greenfields Exploration Induction" outlines the main concerns of the day such as no littering, no drugs, no fighting, no pornography etc. Commendably, the document emphasizes traffic safety, accidents, fire, cultural patrimony, malaria and snake bites.

The January 2008 5-page document shows that social and environmental work has begun, such as "First do no harm", training for Forum members, inclusion of former adversaries in the forum and its commissions, financial support for some schools, building four new classrooms in one school, support for the hospital, medication subsidies, and its physicians, rehab of water points at five sites, meningitis, HIV/AIDS, repair of the road between the hospital and the maternity facility, the start of grievance mechanism and conflict management, and commendable training for 1000 women. They claim they have upgraded the 65 Km Bunia-Mongbwalu road which facilitates food transport and the arrival of NGOs who would not have come had the road not been upgraded.

In March 2009, AGK contracted with PACT (together with US AID's Global Development Alliance) to focus on two priorities: first, impacted women and second, the Mongbwalu Stakeholder Forum. Artisanal miners are the focus at present, together with conflict resolution, literacy and a savings program so miners can get out of debt bondage. One of AGK's biggest failures to date is the lack of any sort of ESIA for it's exploration phase now nearing completion.

### **Map 2: The Region of the Mongbwalu Mine**

### 3. Opencast vs. Underground Mines

Mining in the Mongbwalu region over the last fifty years has been the underground type. No big opencast mines have yet been developed. The balance between opencast and underground mining is environmentally and socially critical.<sup>5</sup> Underground mining creates relatively small environmental and social “footprints,” especially in densely populated sites. The land take or footprint of an underground mine is likely to be less than one hectare at each site. This is because all processed ore and materials excavated are replaced underground in the mined-out tunnels thus reducing the need for any spoils dumps on the surface. In the rush to extract ore, sometimes inadequate attention may be paid to tunnel safety and the quality and strength of tunnel supports. Both opencast and tunnel mining have tailings lagoons on the surface. The gold-bearing mined rock in both cases is brought to the surface where it is ‘treated’. This treatment often includes crushing the rock, then pouring chemicals on a heap of crushed rock to leach out the gold. The spent rock and the leach water is channeled to an extensive but shallow tailings lagoon, often one to many hectares in area. Human safety is probably more at risk in underground tunnel mines than in opencast mines. In wet areas such as Mongbwalu, such tailings lagoons often fill with rain and overtop the shallow containing berms. This releases the poisonous chemicals downstream. Such leakage or spillage of tailings is a common occurrence worldwide.

Underground mines greatly reduces displacement of humans with all the social trauma and expense involved. A single opencast mine in a populated site, in contrast, can displace whole villages and towns involving tens of thousands of people. AGK stated in their 2007 Country Report that open cast will be used; underground is not mentioned. However, during our May 2009 discussions, AGK said that they have not decided, that they can choose one or the other, or even a hybrid combination of the two. If AGK really has flexibility in choosing between open cast and underground, that would be encouraging because the major impacts of involuntary resettlement can be minimized or even avoided altogether. If indeed AGK has such flexibility in the selection of mine type, then selection of underground would vastly reduce displacement and biodiversity impacts.

The recommendation is clear. To the extent the proponent wants to reduce human displacement, it would give more weight to the underground option, and less weight to the opencast option.

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<sup>5</sup> Opencast or open pit mining is essentially a gigantic hole in the ground, often a kilometer deep and several kilometers in circumference. First, the overburden is removed because it doesn’t contain gold. This has to be dumped somewhere which takes up an enormous amount of space meaning more people may have to be displaced. The overburden dump is exposed to the weather. Warm rain percolates thru the dump and often leaches out poisonous chemicals (see section on acid mine drainage). Once the overburden is removed and the gold-bearing strata exposed, the gold-bearing rock is dynamited in many small stages and the broken rock is trucked up to the surface. Noise, dust, traffic accidents and a huge land take for the overburden dumps and tailings lagoons are major impacts. Underground mining means tunneling through the gold-bearing geology. In the case of artisanal mines, the tunnels are narrow, that is why child miners are often used. They fit down cheaper, narrower tunnels. The usual start is to excavate a vertical mine shaft to the gold bearing strata, often several hundred meters deep. An electric elevator or lift is fitted in the shaft. Ventilation (and heat) are major problems in tunnels, hence the provision of air pumps and ducting throughout. Once the vertical shaft reaches the gold-bearing strata a series of lateral tunnels are carved out. Major mines make lateral tunnels big enough for a narrow-gauge rail to fit, often five m high and ten m wide.



More specifically, the ESIA should as a priority rank all potential mine sites already explored by AGK based on the two paramount criteria, namely population density and the presence or absence of forest. Underground mining minimizes involuntary resettlement, as well as prevents the loss of forest, hence conserves biodiversity.

## 4. Social Impacts

### 4.1 Conflict Region

*"We all believe that for companies to succeed into the future, they must play a greater role in contributing to solving the problems that society faces, including environmental degradation, poverty and the abuse of human rights. "We commit to doing all we can within our own organisations, and with others, to turn these conclusions into practice."* Signed by: Sir Mark Moody-Stuart, chair Anglo American, Mervyn Davies, chair Standard Chartered, and John Manzonei, BP's chief executive, refining & marketing, 18 June 2007 published in "Tomorrow's Company.

*The Ugandan army withdrew from Congo in 2003, following Rwanda, another major belligerent, which had withdrawn the year before. Each left behind local proxies, the Lendu Nationalist and Integrationist Front (Front des Nationalistes et Intégrationnistes, FNI) linked to Uganda, and the Hema Union of Congolese Patriots (Union des Patriotes Congolais, UPC), supported by Rwanda. With continued assistance from their external backers, these local armed groups in turn fought for the control of gold-mining areas and trade routes. As each group won a gold-rich area, they promptly began exploiting the ore. The FNI and the UPC fought five battles in a struggle to control **Mongbwalu**, each resulting in widespread human rights abuses. Human Rights Watch researchers documented the slaughter of at least two thousand civilians in the **Mongbwalu** area alone between June 2002 and September 2004. Tens of thousands of civilians were forced to flee from their homes into the forests to escape their attackers. Many of them did not survive. Source: HRW, 2005.*

Mining in a conflict zone almost always rekindles strife. Therefore, one of the most important warnings about the Mongbwalu project is that as it is located in a very risky conflict zone (see quotations above), the risks of conflict are enormous. One of the most frequently repeated recommendations of practically all international extractive industries guidelines is that starting a mine in an already conflicted area invariably exacerbates the conflict. Anglo Gold's shareholders may want to consider this massive risk before proceeding just now until the risks abate to a prudent level.

DR Congo's most recent civil war lasted for six years, ending in 2003, although political instability continues to this day. Since early 2009, the state has been virtually bankrupt. The local currency has lost more than one third of its value since last year. The GDP looks like diving from 8% to less than 3% in 2009. The world recession has cut foreign investment by more than two-thirds, as the price for key minerals plummets. There isn't enough money to pay to run the government (not even utility bills) and pay government officials, nor to pay soldiers and

teachers. The \$9Bn infrastructure package agreed with China saddles DR Congo with massive new debt. However, DR Congo may be too 'big to fail'. In response to Congo accepting the China deal, IMF delayed cancellation of the \$10Bn of debt that DR Congo already owes. But possibly because of the notion that it would be worse if DR Congo were allowed to fail, IMF pumped in \$200m to boost foreign exchange reserves, the World Bank allocated \$100m for teachers salaries, and AfDB looks set to follow suit. The risk is that unless government, soldiers, teachers etc are paid, the country could destabilize even more.

The civil war has killed more people than any other war since World War II, about 5.4 million souls, which is over a tenth of the country's population. Fighting broke out again as recently as August 2008 between renegade General Laurent Nkunda's rebel forces and the Government in North Kivu Province.<sup>6</sup> Armed groups persist in harassing some mining operations. Congolese soldiers occupied Kivu Resources Mpame Bisye mine in December 2004, but negotiations broke down and Kivu Resources declared force majeure, and in October 2008.

Amnesty International sum up the current situation: Early in 2009, there was a dramatic turn of events in the conflicts in eastern Democratic Republic of Congo (DRC). The DRC government reached agreements with its often-hostile neighbors Uganda and Rwanda, permitting them to pursue their enemies by joint military operations on Congolese soil. In Ituri district, in the far northeast of DRC, the American government reportedly helped finance and plan the joint operation of Uganda, South Sudan and DRC against the Lord's Resistance Army (LRA). This operation led to dispersal of LRA forces but also to LRA reprisal attacks on Congolese civilians, in Ituri and neighboring Haut-Uele. Hundreds of Congolese reportedly were killed, and thousands displaced. To the south of Ituri, in North Kivu province, Rwanda and Uganda apparently reached an agreement to end proxy warfare. Rwanda allegedly withdrew its support from Congolese Tutsi warlord, General Laurent Nkunda, and detained him in Rwanda. In return, the DRC government withdrew its support from the Democratic Front for the Liberation of Rwanda (FDLR). The Rwandan and DRC armies began joint operations against the FDLR. These operations enjoyed some success, in that large numbers of Rwandan Hutu, including FDLR members and their dependents, began returning home or turning themselves in to the UN mission (MONUC).

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<sup>6</sup> DR Congo is a party to the Rome Statute. The International Criminal Court (ICC), governed by the Rome Statute, is the first permanent, treaty based, international criminal court established to help end impunity for the perpetrators of the most serious crimes of concern to the international community. which established the ICC, and thus has a legal obligation to cooperate with the court, including apprehending persons under arrest warrant and surrendering them to the court. In addition to the ICC charges, Bosco Ntaganda, Nkunda's second-in-command, has been accused of commanding troops that massacred 150 civilians at Kiwanja in North Kivu province in November 2008. He also commanded troops accused of having killed at least 800 civilians on an ethnic basis in the town of **Mongbwalu**, in Ituri district in 2002, after his troops took control of the rich gold mines in the area. In 2005, Ntaganda was put on the United Nations sanctions list for having violated an embargo against arms deliveries to Congolese rebel groups.

Van Puijenbroek sums Ituri's current conflict well: *In Ituri (NE Congo) security and reconciliation is far from assured. Residual militia groups are still active. The main human rights abusers are the army and the police. Public administration is extremely fragile. Civil society is extremely weak due to years of ethnic conflict and local churches and NGO's are seen as being linked to one of the ethnic communities. The relation between the communities and the state security agencies is characterized by extreme distrust. Any solution for the security problem had to come from the organization of the communities on their own security and the organization of an interface between the communities and the state (security) agencies. It had to be organized by a platform of churches and NGO's as to assure sufficient credibility with all ethnic communities. This strategy made it possible to decrease substantially the abuses and harassment by the official security agents and to reduce local insecurity. It also created space for the population to express itself and for the state to slowly start rehabilitating itself. While addressing the abuses of the army, often a coalition emerged between local civil authorities and the population. Large scale community gatherings on security have proven to be an invaluable tool in changing the behavior of the army and police.* Source: Van Puijenbroek, 2008. Human security from below, a case study from the Ituri district, Democratic Republic of Congo. *Journal of Modern African Studies* 46, (3): 427-450.

In addition, the United Nations Development Program's Human Development Index (HDI) found that out of 179 countries measured the DRC ranks 177th; a ranking for a country with a population of over 65 million. Life expectancy in the DRC is 46 years. Only 33 percent of the school-aged children are enrolled in some type of school. While the GDP hovers around \$300 US dollars, per person, per year.

In December 2006, former UN secretary-general Kofi Annan admitted that Moroccan peacekeeping troops in the DRC had been involved in "crimes such as rape, paedophilia and human trafficking." The UN has covered up allegations that its peacekeepers traded gold, ivory and arms with violent rebel groups in the Democratic Republic of **Congo**, according to an 18-month investigation by the BBC reported in LexisNexis 29<sup>th</sup>. April 2008, where peacekeepers and officials have been accused of repeated sexual misconduct. The BBC reports that Pakistani and Indian troops were implicated in arms deals. The UN insisted it investigated the accusations last year but could find no evidence that troops had supplied arms to militias. But an 18-month investigation by the BBC's Panorama program concluded that such deals had taken place and UN staff had been told not to pursue their investigations for fear of upsetting Pakistan - the largest contributor of peacekeepers. At the time, Jean-Marie Guéhenno, the United Nations' Under-Secretary-General for Peacekeeping Operations said: "The investigation has found no evidence of gun smuggling. But it has identified an individual who seemed to have facilitated gold smuggling. We have shared the report with the concerned troop-contributing country and I am confident they will take the required action." Sixty-six peacekeepers were repatriated and six civilian staff suspended when charges of misconduct came to light. The latest allegations involve Pakistani peacekeepers in the eastern town of **Mongbwalu**, who are accused of receiving gold from the Nationalist and Integrationist Front (FNI) militia in return for providing them with

weapons to guard mines. Several residents of the mining town of **Mongbwalu** said they had seen the FNI re-armed. "One former militant told our correspondent he had witnessed seven boxes of ammunition being brought from the UN camp to the re-supply the FNI during a critical fire-fight. Two FNI leaders known as Kung Fu and Dragon, who have been jailed in Kinshasa, have stated publicly that they received help from the UN." Kung Fu, whose real name is General Mateso Ninga, said: "Yes, it's true, they did give us arms. They said it was for the security of the country. So they said to us that we would help them take care of the zone." The FNI contains "some of the most murderous individuals that operate in eastern Congo".

The UN mission in the Democratic Republic of Congo is the largest in the world, with 17,000 troops. It has brought a measure of stability since being deployed eight years ago to a country ravaged by civil war. But armed groups continue to rape, murder and loot their way through large parts of the east of the country, where thousands of civilians are still being uprooted. At the same time, the UN's peacekeeping mission, known as Monuc, has been implicated in a series of sex scandals. Sixty-six peacekeepers were repatriated and six civilian staff suspended when charges of misconduct came to light. The latest allegations involve Pakistani peacekeepers in the eastern town of **Mongbwalu**, who are accused of receiving gold from the Nationalist and Integrationist Front (FNI) militia in return for providing them with weapons to guard mines.

### **Box 1: UN Resolution 1820 Against Sexual Violence in Eastern DR Congo**

July 1<sup>st</sup>. 2009: U.N. Secretary General Ban Ki-moon reported to the Security Council on implementation of Resolution 1820. One year after adopting the resolution, Congo remains the worst place on the planet to be a woman. Over 12 years, in a regional economic war for resources, hundreds of thousands of women and girls have been raped and tortured, their bodies destroyed by unimaginable acts. The Security Council's implementation of Resolution 1820 in Congo has been an utter failure. Rape as a weapon of war has increased in eastern Congo since June 2008. In January, military operations were launched in North Kivu with the supposed goal of arresting the rebel leader Laurent Nkunda and neutralizing his National Congress for the Defense of the People (CNDP) troops as well as the FDLR, the former Rwandan Hutu genocidaires. Even now, with Resolution 1820 in place, no one considers the women. Anneke Van Woudenberg of Human Rights Watch, just back from the front lines in both North and South Kivu, told me Monday that in nearly all the health centers, hospitals and rape counseling centers she visited, rape cases had doubled or tripled since January ([www.hrw.org/en/rss/news](http://www.hrw.org/en/rss/news)). Rapes continue to be committed with near complete impunity. While the number of criminal prosecutions has risen marginally, only low-ranking soldiers are being prosecuted. Not a single commander or officer above the rank of major has been held responsible in all of Congo. Rapes by the national army are increasing, too.

Apart from stoking strife, opening a mine in a non-conflict area also tends to polarize the whole society. For example, employment may shatter families (one son may get a well-paying mining job; other sibs may not), disrupts traditional authorities (mine employees have more money and

status thus tending to undermine traditional authority and social controls), ruptures community cohesion while intensifying social stresses (e.g., migrant labor taking second wives locally). Because a new mine can be so disruptive in non-conflict zones, a new mine in an already conflicted zone can be explosive, reigniting smoldering ethnic tensions, promoting envy. Nine countries have been warring with each other or involved in armed conflict in this part of DRC for many years.

### **Box 2: DR Congo: The Kilwa Massacre at the Anvil Mine**

At least 73 civilians, including many women and children, were killed unlawfully in and around Kilwa in October 2004 by soldiers of the 62nd Brigade of the Forces Armées de la République Démocratique du Congo (FARDC), Congolese Armed Forces. Other victims were arbitrarily arrested and tortured. Kilwa's copper and silver Anvil Mining provided transportation in the form of company planes and road vehicles this army operation. Australian prosecutor said to be investigating DFID/US AID. Jean Moise Djoli, from the Congolese Lawyers in Canada group, said that the Anvil Mining Company (headquartered in Montreal and Perth, Australia) provided guns to the military of the war-ravaged Democratic Republic of Congo (DRC) to kill and displace civilians for mineral exploitation. In October 2004, Anvil Mining, the leading copper producer in the DRC, shut down production at their Dikulushi Mine when a so-called "rebellion" took place in a nearby village – a rebellion of "ten to twelve" villagers that had nothing to do with mining. Congolese Armed Forces (FARDC) of the DRC government, preceded to seize the town, then went door-to-door "raping and pillaging". Canada's Mining Watch Kneene said the Congo forces had Anvil's "full cooperation". Anvil officials were tried of war crimes in June 2007; all were acquitted. Australian lawyers, Slater & Gordon, are investigating possible compensation claims in the Australian courts against Perth-based Anvil Mining for 61 of the victims. [www.societecivile.cd/node/4118](http://www.societecivile.cd/node/4118); CorpWatch: 2007. Congo: Anvil Mining Hammered Over Military Assistance.

### **Box 3: The Importance of Human Rights Implementation**

AngloGold Ashanti, one of the largest gold producers in the world, started exploration activities in the Mongbwalu gold mining area. Following earlier attempts to make contact with the UPC armed group, AngloGold Ashanti representatives established relations with the FNI, an armed group responsible for serious human rights abuses including war crimes and crimes against humanity, and who controlled the Mongbwalu area. In return for FNI assurances of security for its operations and staff, AngloGold Ashanti provided logistical and financial support – that in turn resulted in political benefits – to the armed group and its leaders. The company knew, or should have known, that the FNI armed group had committed grave human rights abuses against

civilians and was not a party to the transitional government. As a company with public commitments to corporate social responsibility, AngloGold Ashanti should have ensured their operations complied with those commitments and did not adversely affect human rights. They do not appear to have done so. Business considerations came above respect for human rights. In its gold exploration activities in Mongbwalu, AngloGold Ashanti failed to uphold its own business principles on human rights considerations and failed to follow international business norms governing the behavior of companies internationally. HRW, 2005.

The recommendations are clear.

- (a) Any company opening a mine in a conflict area is provoking the conflict to flare up anew. Opening a mine in a conflict zone is very risky behavior that the shareholders will have a view on.
- (b) One solution may be the USA's April 2009 Congo Conflict Minerals Act. The bill aims to break the link between resource exploitation and armed conflict in eastern Congo by requiring companies trading minerals with Congo or neighboring states to disclose mine locations and monitor the financing of armed groups in eastern Congo's mineral-rich areas.
- (c) Work is progressing in labeling the provenance of minerals. Such labeling is advanced in the case of diamonds. Consumers wanting to avoid "Conflict diamonds" now have a tool to ensure their purchases are not from conflict area. Germany has already developed a pilot fingerprinting system for tin that could be expanded to other minerals and help establish certified trading chains, linking legitimate mining sites to the international market. In the case of gold, labeling has not yet quite reached that stage but may well do in the short to medium term.

## **4.1 Involuntary Resettlement**

Involuntary resettlement has rarely been successful anywhere in the world. On the contrary, involuntary resettlement is responsible for creating much poverty. Most oustees already are poor and lack voice or they would not be forcibly displaced. Resettlement usually involves several years of waiting to see who will be asked to move. Disinvestment is widespread during that waiting period. Then when people are moved away from their homes needed for the mine or other project, they are often put into interim holding camps, many of which are tented with inadequate water supply and sanitation. Holding camps may last for several years until the final new resettlement sites are acquired or readied. When the oustees move, their new dwellings may be ready but their agricultural plots often are not. Their new plots must be cleared and readied for planting, fences built, trees planted and ponds dug. Several years may then elapse before the new plot begins to yield as much as their pre-move plot. Therefore resettling often implies 5-10 years of substantially lowered standards-of-living until pre-move standards can be restored. Because involuntary resettlement means the use of force and because resettlement boosts poverty it has to be prevented or kept to an absolute minimum.

Involuntary means people are unwilling to move; they doubt if they will be better off if they do move. This means the families on top of the area planned for the opencast pit mine are forced to move against their will; consent has not been achieved. The use of force in economic development, especially by private sector projects has become increasingly unacceptable. In addition, the use of force means the fundamental requirement for economics to apply has been violated, namely willing seller – willing buyer. Current practice is not to use force, but rather to engage the community and ensure that any displacement is voluntary (see section on Pygmies and FPIC).

### **Box 2: DR Congo: Freeport McMoran's Tenke Fungurume Mine**

AGK put forward as an example of good resettlement practice the US mining corporation Freeport McMoran's \$1.9 Bn. Tenke Fungurume copper & cobalt mine in Katanga Province. The mine owns 1,500 sq kms, and shipped its first copper cathode in April 2009. Although Freeport is said to have abandoned talks with the government according to Congo Mining Report Q2 (companyESIAndmarkets.com), AGK cited this project as one in which oustees had received paper titles to their new resettlement plots. On 14th. Jan 2008, Bloomberg reported that 2,000 people protested Freeport-McMoRan's hiring policies, which led violence, hospitalizations and damage to equipment. Mineweb reported: "the incident occurred over a misunderstanding that led several hundred residents from outside the local area to believe they would be hired that day. This highlights the importance of "Expectation Management" noted below.

## **4.2 Expectation Management**

The main need for expectation management is not to raise the hopes of many well-paid jobs for local people on the upcoming gold mine. Often, local people feel let down if actual benefits are less than expected benefits. Freek's (2009) report shows that local people feel that they were rather well treated by previous gold mining corporations, and expect AGK's benefits may well be less. In fact Okimo's 50-year relationships with local communities was labeled as 'paternalistic' during our May 2009 visit. AGK, commendably, are well aware of the need for expectation management. Although AGK has almost completed its exploration phase, surrounding communities know next to nothing about the details of the Mongbwalu mining proposal, especially how many and what sort of jobs will be created. This is partly because AGK is in active negotiations with government on the details of its mining contract and does not want to prejudice the permitting process. AGK expect to create about 1500 jobs, but these have not yet been disaggregated into categories.

As soon as the mining permit or draft mining permit is granted, AGK will need to shift gears, and adopt transparency (and EITI) as a guiding principle. Because the life of the mine may well reach 50 years, AGK are in the region for the long term, hence has time to train adequate numbers of local people. Participation with CdC and local communities, AGK will need to set up comprehensive training programs in order to maximize the number of jobs for local people, and announce general job creation targets. Four university scholarships already have been granted by AGK.



**“Local People”:** AGK expressed difficulty in defining “local” people in this context. Many people cannot document their place of birth. For example, should locally born people who have been living in Kinshasa for most of their lives be considered ‘local’ in this regard? How long should a family from elsewhere, but which has been living in the Mongbwalu region for a decade or more be considered local? What preference should Mongbwalu people receive as compared with those from Bunia?

### **4.3 Mine Worker Safety**

Anglo Gold’s Ashanti’s “Safety is Our First Value” campaign is winning results. AGK is committed to having all its mining operations OHSAS 18001 compliant. It would be prudent to follow ILO’s Safety and Health in Mines Convention as well (ILO Convention 176), 1995. On the 20th March 2007, the International Work Office, the source of this section, launched a project to improve the working conditions of miners in the Katangan mines, which aims to reinforce the institutional and human resource capacities in the DRC mining sector. CdC should review the results in Katanga and adopt an appropriate version for Mongbwalu. The project will be applied at grassroots level, to encourage the mining industry towards good governance, durable development, respecting workers rights, as well as social dialogue. Tunnel ventilation and tunnel supports (strength, sizes, distance between each support, early warning systems, emergency procedures and stock-piled equipment will be agreed upon in the case of cave-ins.

The conditions of work in the Democratic Republic of Congo are inhuman, according to the IWO, where men as well as women and infants work to extract minerals in deep and poorly lit mines without any protection. Despite many fatalities because of poor working conditions, no measures have been taken to improve working conditions in the mines. Even worse, most miners work without any form of contract.

Therefore, the International Work Office (IWO) has initiated a four part project. The first consists of a feasibility study of the needs of the target groups in relation to the improvement of working, security and health conditions of artisanal (informal, small scale) miners, and to reinforce the capacity of partners (syndicates and others), according to their needs and capacities. The second part consists of reinforcing social dialogue and worker and employer representation, particularly in the informal sector. A joint tripartite mines committee will be put in place with the aim of institutionalizing social dialogue, both for the formal and informal mining sectors. CdC may want to review this process and adopt the best parts for Mongbwalu.

As well as partnership, the workers themselves will be trained in mediation, grievance mechanisms, and advice techniques with the aim of resolving work conflicts. The third part concerns the organization of informal workers into cooperatives.

The project also aims to reinforce, in the form of pilot projects, the capacities of cooperative members, to organize and develop productive activities with the aim of creating proper working conditions. It will also support the reinforcement of a female artisanal cooperative with the same aim. Finally, there will be sensibilisation campaign at the national and international level with regard to social responsibility in the mining sector, in partnership with “Group One”.

This project also aims to enlighten important actors and public opinion on the working conditions in the mines. It will evaluate the impact of the improvement in the working conditions and productivity of the target groups, and will launch a national campaign which will focus on this issue, as well as the economic potential of the mining sector.

Following the feasibility study, a network of trainers will be created who will focus on the improvement of working, health, security and environmental conditions in the mines, as well as the productivity and capacities of workers.

The training and capacity strengthening campaign for workers and employers in the sector will focus on the impact of HIV/Aids and the code of conduct of the IWO. The training and sensibilisation classes will be also given to local communities, local authorities, employers and others in need. A mutual community health insurance fund will be set up. This work will be developed through transparent dialogue, with the creation of the tripartite committee in the mining sector. A watchdog and grievance procedure will also be set up with the provincial committee, under the tutelage of the tripartite commission.

#### **Box 4: Ituri's Artisanal Problems Similar to Mozambique's**

Artisanal mining is supposed to take place in predetermined "designated areas", none of which are gold-rich, and, artisanal miners are supposed to get an individual mining pass from provincial authorities, which rarely occurs. Artisanal miners' associations get support from the Mining Development Fund. Yet, as these organisations are only viable where ore permits long lasting exploitation, their members represent less than 30% of the workforce. Hence the scope for improving miners' working conditions and reducing their environmental impact through this type of organisation is limited. On the other hand, siltation of rivers and their pollution with heavy metals goes unchecked while the prohibition of artisanal mining, in and around conservation areas has proven counterproductive. After: Dondeyne, S., Ndunguru, E., Rafael, P., & Bannerman, J. 200\*. Artisanal mining in central Mozambique: Policy and environmental issues of concern.

#### **4.4 Public Health**

AGK already has put in place systems of financial support for the local hospital, medical staff medication, immunization campaigns and equipment. Freek (2009) assesses their efficacy. AGK's ESIA firm will doubtless include a Health Impact Assessment in their ESIA.

Commendably, AGK propose to adopt the existing HIV/AIDS policy of their former parent company Anglo Gold. Education campaigns are urgently needed.<sup>7</sup> One of the most effective

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<sup>7</sup> Witches blamed for AIDS in the Congo. AIDS Analysis in Africa. 1995 Aug; 5(4):3.

measures is for AGK to offer free treatment of the common sexually transmitted diseases amongst employees and local non-employees alike, as this greatly reduces the risk of catching HIV/AIDS.

Malaria pervades the Mongbwalu area. AGK could help themselves and the local communities by facilitating the use of treated bednets and setting up a bednet production, washing, repairing and re-treatment facility run by local people. Most anti-malarial drugs on sale in the region are ineffective.<sup>8</sup>

AGK's Dr Sedou Nsundi noted the low level of schistosomiasis (bilharzia) around Mongbwalu.<sup>9</sup> Now that low cost cure (by praziquantel, and some prevention) has become available, AGK would be well advised to treat all victims, employees or not. Curing schistosomiasis also prevents some HIV/AIDS. Orpailleurs and their children who work on stagnant water may be one focus of transmission. As it is well known in South Africa, it need not be a problem. Similarly with the risks of silicosis and TB, both need not become a problem with low-cost preventive measures. The ESIA should outline all communicable diseases (e.g. Plague, Hemorrhagic fever) in their Health Assessment, together with actions on the risks of mercury and cyanide toxicity. Traffic accidents are often frequent in such operations. AGK has already recognized this impact and have instituted sensible safety measures. (See also the section on mine safety).

## Sources of Information on Public Health

Anema A, Joffres MR, Mills E, Spiegel PB. 2008. Widespread rape does not directly appear to increase the overall HIV prevalence in conflict-affected countries: so now what? *Emerg Themes Epidemiol.* 5: 11.

Bompangue D, Giraudoux P, Handschumacher P, Piarroux M, Sudre B, Ekwanzala M, Kebela I, Piarroux R. 2008. Lakes as source of cholera outbreaks, Democratic Republic of Congo. *Emerg Infect Dis.* 14(5): 798-800.

Levy, Barry & Victor Sidel. 2008. War and public health. New York: Oxford University Press.

McDermott J. 2009. DR Congo: The forgotten victims of posttraumatic stress disorder. *Arch Pediatr Adolesc Med.* 2009 Jun;163(6): 587

Spiegel, S.J., Yassi, A., Spiegel, J.M., Veiga, M.M. 2005. Reducing mercury and responding to the global gold rush. *Lancet*, 366 (9503): 2070-2072.

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<sup>8</sup> Atemnkeng MA, Chimanuka B, Plaizier-Vercammen J. 2007. Quality evaluation of chloroquine, quinine, sulfadoxine-pyrimethamine and proguanil formulations sold on the market in East Congo DR. *J Clin Pharm Ther.* 32(2):123-132.

<sup>9</sup> The presence of Schistosomiasis is interesting because it may indicate the location of limestone geology or soils, which will become much needed by AGK in the near. No one we met in AGK was concerned with limestone, but I believe it may become a much-needed resource as soon as problems of acidity, cyanide, pollution and water quality are recognized.

## 4.5 Child Labor

Of the estimated 250 million child laborers (i.e. anyone under 18 years of age) worldwide, more than one million work in mines such as in the Mongbwalu region. Under the UN's ILO Convention No. 182, working in mines is one of the worst forms of child labor - exposing children to severe occupational hazards and often depriving them of basic freedoms. This severe problem can be solved. At least AGK and Mongbwalu can contribute to its solution.

Child labor is found mainly in artisanal and small-scale (ASM) mines. However many of the materials mined or processed by children find their way into a variety of products. The risks are so extreme for children - both physical and psychosocial - that urgent action is required. The prohibition on work in and around mines draws from the Worst Forms of Child Labor Convention, 1999 (No.182) and its Recommendation (No.190), which has been ratified by 169 of the world's 184 countries.

Child labor is pervasive and numerically very high in AGK's Mongbwalu concession. It is one of the most dangerous features of Mongbwalu, and one of deep concern to CdC. The accident rate (e.g., tunnels caving in, silicosis) is unacceptable. The major damage though may well be that children kept out of school by mining are doomed to a life of illiteracy. Illiteracy exacerbates violence. Of course, AGK does not use child labor. But there may be opportunities for AGK to support protection of child laborers, such as via their support for nutrition (e.g., free school lunches), schooling and provisions of teachers, schools and teaching materials. This approach of attracting children out of the mines is non-punitive while improving health, nutrition and education. Parents will support positive inducements that benefit their children more than the pittance accruing from their kids labor in the mines. In the very difficult case in which artisanal families have to be displaced from AGK's mine, then one component could usefully be attraction of child miners out of the mines by such inducements in an attempt to make it easier for their parents to follow them.

Save the Children urged that free lunches be provided to children who attended school instead of working in the Potosi mines in Bolivia. They also provided increased wages as incentives for teachers to improve their classroom performance. This approach to reducing child labor is non punitive in poor countries while addressing both problems of nutrition and education in child development.

### **Box 4: How to Reduce Conflict between Large Scale and Artisanal Mining**

[From: Siegel, S. 2007]

1. Work with companies on engagement policies recognizing rights of miners.
2. Clarify government policies for how miners can be legalized and formalized.
3. Assemble company, minerals commission, and local community leaders to develop consensus process.
4. Work with community leaders to bring active mining cooperatives and associations under a single umbrella.

5. Examine informal property boundaries and mining associations to determine how existing extra-legal organization can be adapted into law, and legal mineral claims established for artisanal miners.
6. Analyze recovery rates of miners to establish how processing can be improved to yield higher profit. Determine suitable technical assistance program for mercury management, mineral processing, and mining engineering.
7. Assess economics of the gold supply chain. This will demonstrate how much miners are actually receiving for their gold; how to improve market access; and whether it is viable to buy gold at premium from miners.
8. Work with Fair Trade Labeling Organization, Association for Responsible Mining, and jewelry manufacturers to certify gold as Fair Trade.
9. Identify governmental and non-governmental counterparts to develop basic services, including sanitation, clean water, and on-site medical center.
10. Link with embassies for rural development funding and non-governmental organizations to develop long-term plan for introducing non-gold economic alternatives livelihoods to community.
11. Assemble industry roundtable through Mining Chamber to develop consistent industry-wide policy on dealing with illegal mining.
12. Bring industry into international efforts to reduce global mercury supply by permanently retiring existing mercury stockpiles and preventing new byproduct mercury production from entering the open market.

#### **4.6 Vulnerable Ethnic Minorities**

*An aggressive drive is taking place to extract the last remaining resources from indigenous territories. There is a crisis of human rights. This is happening in Russia, Canada, the Philippines, Cambodia, Mongolia, Nigeria, the Amazon, all over Latin America, Papua New Guinea and Africa. It is global. A battle is taking place for natural resources everywhere. Much of the world's natural capital – oil, gas, timber, minerals – lies on or beneath lands occupied by indigenous people.*  
Victoria Tauli-Corpus, Chair, UN Permanent Forum on Indigenous Issues, June 2009.

One of the biggest issues facing AGK is the presence of many Pygmies in the Mongbwalu region who will be impacted by the gold mine and associated activities. They may already have been impacted by the three years of AGK's exploration phase. The ESIA will have to scrutinize the Vulnerable Ethnic Minority problem in detail, if AGK wants to part of the solution, and if AGK wants the ESIA to comply with international standards. This brief section outlines some of the main aspects.

All ethnic minority issues are vexed, partly because the Government may not like the minority, or at least doesn't accord them status equivalent to non-minority citizens. Such double standards of citizenship raise fundamental problems and should be prevented. The USA until very recently broke contracts with and promises with their Indian citizens. Some governments have been accused of genocide against their Indigenous Peoples. Right now Peru's military with helicopter

gunships and machine guns is massacring their Amerindian citizens armed with bows and arrows. President Alan Garcia denounced Peru's Indigenous Peoples on 7<sup>th</sup>. June 2009: that they are standing in the way of progress, (blocking) the path to national development, and are wrenches in the gears of modernity. He called for the military to take a stand against savagery. The Italian Government's inattention to the Roma (Gypsies) has led to violence and killings. Nigeria's mid-June 2009 escalation of violence came at the same time as Royal Dutch Shell agreed to pay £9.7m to ethnic minority Ogoni families – whose homeland is in the delta – who had led a peaceful uprising against it and other oil companies in the 1990s, and who had taken the company to court in New York accusing it of complicity in writer Ken Saro-Wiwa's execution in 1995. Even the World Bank has been accused of harming Pygmies several times, such as while financing Exxon-Mobil's Chad-Cameroon Oil Pipeline in 2000, where the Bank was forced to withdraw from the project in 2006. World Bank Group's record with ethnic minorities worsened more recently in DC Congo (See Box \*\*). The World Bank has a reasonable Indigenous Peoples Policy, which, if followed, would prevent harm to Indigenous Peoples and can support them too.

### **Box 5: DR Congo Pygmies and The World Bank**

In 2002, the Rainforest Foundation first warned the World Bank that its \$450 million in finance of logging in DR Congo could spark massive environmental problems, fuel conflict with people living in the forest, and spread corruption as politicians, officials and warlords would cash in on a 'timber bonanza'. Later, an alliance of twelve Pygmy groups complained to the WB that its financing since 2002 had encouraged foreign logging corporations to destroy the world's second largest forest, endangering the lives of thousands of Congolese Pygmies, and causing "irreversible harm". They claimed that the Bank's awarding of vast logging concessions to companies to exploit the forests was causing "irreversible harm". In August 2007, the Bank's own internal Inspection Panel conducted an investigation. The Bank claimed that industrial forestry could contribute more strongly to the country's recovery from its civil war, and the Bank activities in DR Congo were consistent with the Bank's official commitments to protecting the environment and reducing poverty. But the Panel concluded that the Bank broke its own policies in its financing of logging in DR Congo, and even misled Congo's government about the value of its forests. Evidence shows that its activities in DR Congo have had highly adverse social and environmental results. An area of 600,000 square kilometers (232,000 square miles) of forest was earmarked for logging companies. The presence of c.600,000 Pygmies living in the Congolese forests was well known and documented. But the Bank paid little concern to Pygmy welfare, promoting over it the interests of asset-stripping logging companies. The Pygmy communities were not at all consulted before the Bank's financing. Twelve foreign-owned or foreign-controlled companies were encouraged by the Bank to dominate the entire industry. Some had concessions of more than 5m hectares, and all included Pygmy communities in their holdings. In October 2007, a Pygmy delegation (Adolphe Muley of the Union pour l'émancipation de la femme autochtone, and Adrien Sinafasi of Dignité Pygmée, DRC), as well as staff from the Rainforest Foundation UK, met the World Bank's Vice President for Africa, Obiageli Ezekwesili, but were hectored and lectured at by Bank staff who, despite the unequivocal 133-page findings of the Inspection Panel, continued to deny any Bank responsibility. The meeting quickly descended into chaos, according to the Guardian

([www.bicusa.org/en/Article.3585.aspx](http://www.bicusa.org/en/Article.3585.aspx)) as bank staff made increasingly inconsistent and inaccurate claims. For example, they suggested the bank had had nothing to do with Congo's new pro-logging forestry laws, when the development of these very laws was identified as an outcome of a bank project. The delegation was then unceremoniously hustled out of the meeting. Later the Bank admitted that it couldn't point to a single example of industrial logging in the tropics alleviating poverty or delivering durable economic benefit. Sources: [www.rainforestfoundationuk.org/sDR%20Congo](http://www.rainforestfoundationuk.org/sDR%20Congo); [worldbank.org/EXTFORINAFR/Resources/IP\\_2007\\_DRC\\_Forestry\\_2.pdf](http://worldbank.org/EXTFORINAFR/Resources/IP_2007_DRC_Forestry_2.pdf) Report No. 40746 – ZR, 31st. August 2007, 132 p; John Vidal, Guardian, 4 October 2007; [www.globalwitness.org/pages/en/ifmdrc.html](http://www.globalwitness.org/pages/en/ifmdrc.html); Financial Times 7 December 2007 "World Bank admits Congo omissions"; [www.bicusa.org/en/Article.3619.aspx](http://www.bicusa.org/en/Article.3619.aspx).

Pygmies are nomadic and mainly hunter-gatherers, uniformly very poor in physical possessions, often naked or partly so. They live almost all of the time in the forest and don't like to leave the forest. The best known pygmies are the Bayaka, Efé and Mbuti, and some Twa (Batwa, MButi) or Bambuti in the Ituri Rainforest of DR Congo. Together these groups account for some 130,000 to 170,000-forest dwellers. According to the Congolese Ministry of Social Affairs, about 900,000 pygmies make up 1.5 percent of the nation's 60 million population. Many Batwa have partly sedentarized themselves. Many Ituri-based Bambuti retain traditional semi-nomadic lifestyles.

**Slavery:** According to UNICEF, Pygmies make up 5 to 10% of the DR Congo population. They often live in a form of servitude to their Bantu overseers. It is not known how many Pygmies live as slaves to Bantu masters. Bantu here means those many people speaking one of the many Bantu languages, and who are not Pygmies. The nation is deeply stratified between these two major ethnic groups. The Pygmy slaves belong from birth to their Bantu masters in a relationship that the Bantus call a time-honored tradition. Even though the Pygmies are responsible for much of the hunting, fishing and manual labor in jungle villages, Pygmies and Bantus alike say Pygmies are often paid at the master's whim; in cigarettes, used clothing, or even nothing at all. As a result of pressure from UNICEF and human rights activists, a law that would grant special protections to the Pygmy people is awaiting a vote by parliament

**Pygmy Problems in DC Congo:** Pygmy representatives asked the United Nations on the 23rd. May 2003 to set up a court to try government and rebel fighters from the Democratic Republic of Congo for acts of cannibalism against their people. Sinafasi Makelo, a representative of Mbuti pygmies, told the UN's Indigenous People's Forum that during the four-year civil war his people had been hunted down and eaten. "In living memory, we have seen cruelty, massacres, and genocide, but we have never seen human beings hunted down as though they were game animals," he said. "Pygmies are being pursued in the forests. People have been eaten. This is nothing more, nothing less, than a crime against humanity." Both sides in the war regard Pygmies as "subhuman", and some say their flesh can confer magical powers.

There have been allegations of cannibalism during the recent conflict between Hema and Lendu militia in the northwestern Ituri region, but a spokesman for the UN mission in Kinshasa said these were difficult to confirm. At least 300 people are said to have died in the fighting. A mass grave containing the remains of more than 30 men, women and children was found near the town of **Bunia**, according to the UN. Church leaders and residents have accused Lendu militiamen of

killing civilians, cutting open their chests, removing hearts, lungs and livers, and eating them. Compelling witness statements bolsters the Minority Rights Group International's evidence of mass killings, cannibalism and rape presented the case to the ICC in The Hague. The case. Some authorities claim that the collective illiteracy of pygmy communities is the source of their mistreatment. A push for the education of both adults and children has been on the national agenda for the last five years in DRC.

There are signs of hope. One group of Pygmies, the Mbendjele Yaka people, uses GPS handsets to pinpoint sacred sites and hunting areas. This is an effective way for the nomadic forest dwellers to literally put themselves on the map to protect their livelihoods and habitat against the commercial loggers.

Although Pygmy tribes live at both the geographical and social fringes of Congolese society, they have no significant representation among the leadership or administration of the country, which has made little effort to change the situation. Cultural and language differences present further barriers to advancement. From this vantage point, many Pygmy people understandably saw the DRC's 2006 elections as irrelevant to their lives. The PAPC, partnering with the Union pour l'émancipation de la femme autochtone of the DRC, decided that promoting electoral participation among Pygmies—women in particular—would represent a strategic hotspot for giving country-wide legitimacy to the elections. With the help of CIDA, some Pygmies have learned what voting means and have voted.

The current constitution, which was passed in a referendum in November 2005, guaranteed minority rights to the Pygmies. But the government's official 2006 submission to the UN's Committee on the Elimination of Racial Discrimination (CERD), completely ignored forest peoples. In its concluding observations issued in August 2007, CERD recommended that DRC take 'urgent and adequate measures' to protect the rights of the Batwa to land'. It also urged that there be a moratorium on forest lands, register the ancestral lands of the Batwa, and make provision for the forest rights of indigenous peoples in domestic legislation (MRG, 2007).

Agence France-Presse (AFP) of 9<sup>th</sup>. May 2009 reported that Government troops sodomised pygmies in March in the eastern Democratic Republic of Congo (DRC), believing they would gain supernatural powers. "Some soldiers from the 85th Brigade sodomised three male pygmies to gain supernatural powers and protection in Kisa village in Walikale territory (North Kivu province)," said the Human Rights League of the Great Lakes (LDGL).

## **Recommendations**

1. In principle, AGK should not plan any displacement of Pygmies whatsoever. The forests where Pygmies live and roam should be off limits to AGK.
2. AGK's ESIA should carefully estimate the number of families of Pygmies in the general Mongbwalu region, including family size, current ambits, demographic trends, and leadership structures.
3. AGK's Corporate Social Responsibility suite of policies and standards should include a stand on Human Rights, which should guide AGK's actions with regard to Pygmies.



4. Following UN ILO's Convention 169 obliges the government to consult with ethnic minorities before any legislation is passed that affects them. Presumably the government AGK contract should be discussed.
5. AGK's ESIA should follow the World Bank's Indigenous Peoples Policy from the outset.
6. Educational campaigns should be mounted to educate everyone on the rights and vulnerabilities of Pygmies.
7. Anthropological Pygmy specialists should be consulted on the most effective ways to protect Pygmies from AGL's impacts, and how to buy time so the Pygmies can live in peace and develop at their own pace and in the directions they may eventually choose.
8. Ruling intact forest off limits to highways, extractive industries and logging corporations is possibly the best support for Pygmies. Their ancestral domain land rights need to be clarified.
9. Any Pygmies wanting to attend school should be enabled to do so, and provided with school materials, nutrition, dwellings and whatever clothes are needed. Education in the significance of voting shows promise.
10. Training in GPS and mapmaking can be effective. The Pygmies perambulate through the forest and map all of their areas, such as the tombs of their ancestors, hunting grounds, fruit tree groves, sacred areas, water holes, areas of medicinal plants. These are all captured on GPS points, then downloaded on the computer
11. Grievance mechanisms should be made available so Pygmies trying to protect themselves against loggers, poachers or new roads etc. Access to justice must be accorded all citizens.
12. Health clinics should be free to any Pygmies wanting to use them. Immunization programs should be offered.

## **Sources:**

Alert Net & Reuters Foundation. 2007. Shady dealings in Congo's mining sector. [www.alertnet.org/.../8-192942-1.htm](http://www.alertnet.org/.../8-192942-1.htm)

Amnesty International, 2003. On The Precipice: The Deepening Human Rights and the Humanitarian Crisis in Ituri. London, Amnesty International, 31 p.

Bahuchet, Serge. 1993. La rencontre des agriculteurs : les Pygmies (Aka et al.) parmi les peuples d'Afrique centrale. Paris: Peeters, 173 p.

Bahuchet, Serge (ed.) 1994. Situation des populations indigenes des forets denses humides. Luxembourg: Office des publications officielles de Communaute des europeennes UNIPUB 511 p.

Bahuchet, Serge (ed.) 1979. Pygmies de Centrafrique: etudes ethnologiques, historiques et linguistiques sur les Pygmies "Ba/Mbenga" (Aka/Baka) du nord-ouest du bassin congolais. Paris, SELAF 179 p.

Bahuchet, S. 1991. Les Pygmées d'aujourd'hui en Afrique centrale. Journal des africanistes 61 (1): 5-35.

Beaucherk, J. 1993. Hunters and Gatherers in Central Africa: On the Margins of Development, Oxford, Oxfam Publications.

Bailey, Robert Converse. 1990. Humans as primates: The social relationships of Efe pygmy in the Ituri Forest, Zaire. International Journal of Primatology 11(2): 127-146.

Bekoe, D. & Parajon, C. 2007. Developing and Managing Congos Natural Resources. USIPeace Briefing: U.S. Institute of Peace... Natural resources fueled the conflict, and provided illegal sources of wealth for some. [www.usip.org/.../0710\\_congo.html](http://www.usip.org/.../0710_congo.html)

Bleeker, S. 1971. The pygmies: Africans of the Congo Forest. London, Dobson, 143 p.

Cornet, Joseph-Aurélien (Frere). 1982. Pygmées du Zaïre. Paris, France: Editions ET publications des Pères Jésuites en Egypte.

Earthworks & Oxfam. 2007. Dirty Metals Mining: Communities and the Environment: From Open Pit to Wedding Ring: How Gold is Produced. Earthworks & Oxfam 34 p. [www.law.arizona.edu/.../Appendix4DirtyMetals\\_HR.pdf](http://www.law.arizona.edu/.../Appendix4DirtyMetals_HR.pdf).

Fisher, John W., and Helen C. Strickland. 1989. Ethnoarchaeology among the Efe pygmies, Zaïre: spatial organization of campsites. American Journal of Physical Anthropology 78: 473-484.

Gross, Deanna Katherine. 2007. Politics and plunder: Civil war and regional intervention in Africa. Flinders University, [01front.pdf](#) 309.9 Kb; [02whole.pdf](#) 2223.7 Kb.

Human Rights Watch, 1993. Zaire: Inciting Hatred: Violence against Kasaiens in Shaba. New York.

Human Rights Watch (HRW). 2002. The war within the war: Sexual violence against women and girls in eastern Congo. Washington, DC: HRW.

Human Rights Watch (HRW). (2003) Ituri: Covered in Blood: ethnically targeted violence in Northeastern DR Congo. HRW, Washington, DC: HRW.

Human Rights Watch (HRW). (2005) DR Congo: Army should not appoint war criminals. HRW, Washington, DC: HRW.

International Crisis Group, Katanga: The Congo's Forgotten Crisis, January 2006.

Inventory of Conflict and Environment (ICE) Case Study No. 163, December 2005 The Pygmy Case: Provides a common basis and method for looking at issues of conflict and environment.

Jackson D. 2003. Twa Women, Twa Rights in the Great Lakes Region of Africa. London, Minority Rights Group International.

Lawyers' Committee for Human Rights, 1990. Zaire: Repression as Policy: A Human Rights Report, New York.

Laden, Gregory T. 1992. Ethnoarchaeology and land use ecology of the Efe (Pygmies) of the Ituri Rain Forest, Zaire. Mass., Harvard Univ., Diss., Cambridge.

Lewis, J. 2000. Batwa Pygmies of the Great Lakes Region. London, Minority Rights Group (MRG) 36 p.

Lobho Lwa Djugudjugu, J.-P. 2007. The needs of miners: political ethics, mercury abatement, and intervention in artisanal gold mining communities. This dissertation examines the role of donor-funded international projects to reduce mercury pollution from artisanal and small-scale gold mining (ASM). [hdl.handle.net/2429/435](http://hdl.handle.net/2429/435)

Mafoukila Kokolo, C. 2006. La scolarisation des enfants Pygmées au Congo: evolution historique et perspectives. Yaoundé, Cameroun: Presses Universitaires d'Afrique. 249 p.

Laden, Gregory T. 1992. Ethnoarchaeology and land use ecology of the Efe (Pygmies) of the Ituri Rain Forest, Zaire. Mass., Harvard Univ., Diss., Cambridge.

Lewis, J. 2000. Batwa Pygmies of the Great Lakes Region. London, Minority Rights Group (MRG) 36 p.

Minority Rights Group (MRG). 2004. "Erasing the Board" or "Wiping the Slate" Report of the international research mission into crimes under international law committed against the Bambuti Pygmies in the eastern Democratic Republic of Congo. 32 p.<sup>10</sup>

Mercader, J., Marti, R., Gonzalez, I., Sanchez, A., Garcia, P. Archaeological site formation in tropical forests: Insights from the rock shelters of Ituri, Democratic Republic of Congo. *Geoarchaeology*.

Mercader, J., Rovira, S., Gómez-Ramos, P. Shared technologies: Later stone age forager-farmer interaction and metallurgy in the Ituri rain forest, Democratic Republic of Congo. *Azania*, 35.

Mercader, J., Runge, F., Vrydaghs, L., Doutrelepon, H., Ewango, C.E.N., Juan-Tresseras, J. 2000. Phytoliths from archaeological sites in the tropical forest of Ituri, democratic Republic of Congo. *Quaternary Research*, 54 (1), pp. 102-112.

Njuma Ekundanayo. 1993. Analyse de la situation des femmes et enfants pygmées du Zaïre. Kinshasa, 32 leaves.

Fouts HN, Brookshire RA. 2009. Who feeds children? A child's-eye-view of caregiver feeding patterns among the Aka foragers in Congo. *Social Science Med.*

Pottier, J. 2005. *Ituri watch: Insecurity persists at the end of 2004*. Africa Initiative Programme

& FEWER International AIP/FEWER, Nairobi: AIP/ FEWER Issue MAY, May 2007 Displacement and ethnic reintegration in Ituri, DR Congo: Challenges ahead.

Pottier, Johan. 2008. Displacement and ethnic reintegration in Ituri, DR Congo: challenges ahead. *The Journal of Modern African Studies* 46:427-450.

---

<sup>10</sup> A United Nations investigation team was told by witnesses that anti-government militias belonging to the Congolese Liberation Movement and the Congolese Rally for Democracy-National have committed atrocities including torture, mutilation, rape of women and children, summary executions and kidnappings. These atrocities are alleged to have taken place in Ituri and North Kivu provinces, as part of an operation called 'wipe the slate', according to Survival International, 2002.

- Pottier, J. 2007. Rights violations, rumor, and rhetoric: Making sense of cannibalism in Mambasa, Ituri (Democratic Republic of Congo). *Journal of the Royal Anthropological Institute*, 13 (4): 825-843.
- UN Office for the Coordination of Humanitarian Affairs. 2009. DRC: Congo's pygmies still ostracized from political process. *Minorities Under Siege - Pygmies today in Africa*.
- Vlassenroot, K., Huggins, C. 2005. Land, migration and conflict in eastern DRC. 2005. *From the Ground Up: Land rights, conflict and peace in sub-Saharan Africa*, pp. 115-195.
- La problématique du conflit ethnique Hema-Lendu en Ituri. 2002. *Mouvements et Enjeux Sociaux*, 7: 43-77.
2007. *Communal Conflict and the Geopolitics of Land, Ethnicity and Territoriality in North Kivu, Democratic Republic of Congo*. [www.theses.ulaval.ca/2007/25043/25043.pdf](http://www.theses.ulaval.ca/2007/25043/25043.pdf)
- Mercader, J., Garralda, M.D., Pearson, O.M. , Bailey, R.C. 2001.. Eight hundred-year-old human remains from the Ituri tropical forest, democratic Republic of Congo: The rock shelter site of Matangai Turu Northwest. *Journal of Anthropological Research* 57 (2): 197-217.
- Minority Rights Group (MRG) c. 2007 (nd). *Democratic Republic of the Congo Overview*, v.p.
- Minority Rights Group (MRG) n.d. *Batwa and Bambuti*, v.p.
- Switzer, Jason. 2002. *Armed Conflict and Natural Resources: The Case of the Minerals Sector* . Mining companies can cause or be affected by conflict, dramatically reducing the profitability of their operations, and negatively affecting the contribution of mineral wealth towards sustainable development. [www.iisd.org/pdf/2002/envsec\\_mining\\_conflict.pdf](http://www.iisd.org/pdf/2002/envsec_mining_conflict.pdf) 23 pp.
- Thomas, Jacqueline & Serge Bahuchet, 1981-2006. *Encyclopédie des pygmées Aka: techniques, langage et société des chasseurs-cueilleurs de la forêt centrafricaine (Sud-Centrafricaine et Nord-Congo*. Éditeurs de Simha Arom ... [et al.] ; avec des documents de Lucien Demesse. Many vols.
- Turnbull, Colin. 2001. *The Mbuti Pygmies: Change and Adaptation*. Belmont, CA. Wadsworth/Thomas Learning, 161 p.
- Verdu P, Austerlitz F, Estoup A, Vitalis R, Georges M, Théry S, Froment A, Le Bomin S, Gessain A, Hombert JM, Van der Veen L, Quintana-Murci L, Bahuchet S, Heyer E. 2009. Origins and genetic diversity of pygmy hunter-gatherers from Western Central Africa. *Curr Biol*. Feb 24;19(4):312-318.
- Wakabi W. 2008. The Democratic Republic of the Congo in crisis. *Lancet*. 2008 Dec 13;372(9655):2011-2012.
- WWF - Mining in the Congo River Basin. Gold, diamonds and other precious minerals in the heart of the Congo River Basin are igniting and fuelling conflict, causing human rights abuses and, in places, decimating forests. [www.panda.org/.../index.cfm?w.corpwatch.org/article.php?id=12361](http://www.panda.org/.../index.cfm?w.corpwatch.org/article.php?id=12361)
2007. *Gold and Ethnic Conflict in the Ituri Region* . The Ituri conflict in the northeast corner of the Democratic Republic of Congo provides an interesting example of how the environment can be both the impetus for conflict and a tool to sustain it. [www.american.edu/ted/ice/ituri.htm](http://www.american.edu/ted/ice/ituri.htm)

## **5. Mongbwalu's Waste Management**

Often the most severe impact of mining on the poor stems from the waste produced by the project. While waste production starts as soon as the project starts, its legacy can continue for centuries after the project. The poor have to live with the damage from such waste long after the extractive industry has quit the area. The most harmful impacts of waste from extractive industries are failure of waste containment, leaching and seepage of toxic or cumulative poisons from the waste container, and erosion of the waste by wind and water. Explosions, spills, and leaks or toxic fumes can also seriously degrade poor people's quality of life. While the main types of waste differ, they all impose similar damages. Waste container means where the waste ends up, whether overburden is bulldozed 'over the edge,' down a slope or into a valley or a river, retained behind a dam, or if heap-leached spent ore is left in place. The world's 3,500 active tailings containers account for most of the recent mining-related catastrophes, and they have become annual occurrences.

Mongbwalu's wastes will primarily be overburden dumps from the opencast mining option, and tailings lagoons from both opencast and underground mining. Both overburden dumps and tailings lagoons often take up many hectares of space. Both are subject to leaks and spills of the contents. They can be very damaging to humans, agriculture, water supply, wildlife and forests downstream because of the toxic chemicals they contain, and because the high silt content smothers crops and kills fish. Noise and dust from the mining, dumping and traffic can also be significant. Transport of chemicals used in mining -- such as cyanide -- needs special safety precautions. Even so spillage of toxic chemicals still occurs frequently in mining.

### **5.1 Acid Drainage**

The most severe of waste legacies from mining often is acid drainage. Acid drainage causes damage from both strong acids and from heavy metals. While some acids seep naturally from rock, it is rarely dangerous. Mining can create or exacerbate acid drainage by fragmenting much sulfide-bearing rock, exposing the dumps to oxidation by the air. The sulfide thus exposed to air oxidizes into sulfuric acid, which is extremely damaging to all forms of life, especially to agriculture. In addition, the sulfuric acid releases heavy metals from the rock. Such retoxification has been called "the chemical time bomb" as it is so damaging to humans and other life. Although heavy metals (e.g., Cd, Cu, Ni, Pb, Zn, Hg, As, Sn) are widespread, they are usually not dangerous as they are insoluble under normal conditions. Acid drainage mobilizes heavy metals, which may then enter the hydrological cycle or be blown for long distances downwind. Even if small amounts of heavy metals are released by the project, they bioaccumulate over the years and up the food chain, hence can become very serious. The heavy metals released and the acid drainage poison drinking water, wreck irrigation and other agriculture, wipe out fish and aquatic organisms far downstream from the project and continue to do so for centuries or more after the project has been closed.

Prevention is the preferred means of dealing with the risk of acid drainage, considering it is almost impossible to cure once it has been allowed to start. If it is permitted to start, then active treatment should become mandatory, such as by annual applications of limestone or water treatment plants<sup>11</sup>. AGK mentioned that the main rocks to be disturbed by the mining are rather low in sulfur, at about 2% sulfur content. The ESIA should assess the risks of AMD from the 2% sulfur-bearing rocks. The normal means of neutralizing acid drainage is by adding limestone. Neither the geologists nor the HSE director knew of any sources of limestone to neutralize acids and reduce heavy metals. Nor did they seem to think limestone would be useful in Mongbwalu. To its credit SRK proposes to import sodium hydroxide, presumably to neutralize the “Tailings” acids, the acids from mine drainage, and other poisons. This may mean SRK sought sources of limestone and that there are none in the region. If these are deemed too expensive, it suggests that the industry probably is trying to externalize costs on to the poor and is not interested in sustainable development.

## **5.2 Best Practice Waste Management**

Underground mining usually imposes fewer impacts than do opencast mines. Worst practice includes open pit leaching, one of the riskiest practices (see the section the use of cyanide in gold), and riverine tailings disposal. Riverine tailings disposal is strongly advised against.; the ESIA should amplify this recommendation. Extractive projects that cannot approach the “Closed Loop” goal – not discharging any solution into natural water bodies – probably do not merit support. Backfilling wastes into opencast or underground mines should be strongly preferred to the extent the social and environmental assessments show it is an improvement over the alternative.

## **5.3 Will AGK Use Cyanide or Not?**

This is the key question that we asked repeatedly, and one that AGK has yet to clarify. During our May 2009 interviews, AGK claimed they have flexibility is using cyanide or not. If so, this is very significant from the environmental point of view. The importance of the “cyanide or not” question is that cyanide is exceptionally toxic to all forms of life. It is a neurotoxin, akin to the prussic acid suicide pills used in WWII. Tiny amounts can promptly kill fish, cattle and other animals. On the other hand it is cheap to manufacture and is far more efficient at amalgamating gold from inert substrate than other extractants. Hence cyanide is by far the commonest industrial gold method used in operations worldwide by means of the low-cost – but risky -- heap-leach method. The cyanide heap leach method is so dangerous that it is banned in an increasing number of countries. The risk arises mainly from the disposal of the spent tailings once the gold has been extracted.

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<sup>11</sup> Atlantic Richfield agreed to pay \$87 million for such a water treatment plant to clean highly toxic water in its Berkeley open-pit copper mine in Butte Montana following the Federal District Court case of March 2002.

The voluminous slurry containing the cyanide tailings are usually pumped or flow down from the heap leach site to a tailings lagoon. Tailings lagoons have to be extensive in order to accommodate the massive flow of slurry. The lagoons are often built in valleys to reduce the expense of building a high dam. A lagoon 10 m. deep by 500 ha might be expected from a major mine. The dam containing the slurry inside the lagoon is often a low earth berm bulldozed across the adjacent valley. The compacted earth-berm is usually strong enough to accommodate the slurry, but leakages, breakages and overtopping are unnecessarily and tragically common in mines worldwide, often because the weight of freak typhoons or torrential 1 in 100 year rains. What is prudent practice? Design somewhat more expensive berms for 1:100 year or 1:1000 extreme climate events, or design cheaper berms that can withstand 1:50 years climatic events?

Because heap leach sites must be designed so as not to waste any gold and to strictly prevent any cyanide from leaching into the water table, they are often lined with thin plastic sheeting and sometimes a layer of compacted clay. These precautions work well initially but do not last forever. They often eventually rupture and crack with age and usage. The design of the lagoon retaining dam or berm to accommodate freak rains and the design of the clay and plastic liners is critical for safety.

## **5.4 Cyanide in Gold Mining**

The most common method of extracting gold and silver from their ores involves the use of large amounts of toxic cyanide that is then at high risk for absorption into the surrounding habitat. This method of choice sprays a lixiviant, normally dilute cyanide (NaCN), on piles of crushed ore. Cyanide and its derivatives are common in tailings. Over a million tons of cyanide (HCN) is manufactured each year, much for sodium cyanide. The cyanide heap leach method began in 1973. Each heap can be hundreds of feet high and cover tens of acres. The heap sits on plastic sheeting over a clay barrier. As such large-scale heap leaching is less than 30 years old, no one knows how long the plastic sheeting will last. Some state and provincial authorities specify requirements for liners, but their longevity is uncertain. . Many liners leak soon after installation because they are emplaced by heavy equipment that drives over the liner itself and underlying rocks. No liner can be considered impermeable forever; zero discharge in such cases is therefore a myth. The question becomes, how long can society wait for zero discharge?

With ores of higher gold content (more than 20gm/ton of ore), cyanide and lime are mixed with ore slurry in closed vats. This removes up to 97% of the gold. The tailings left over are stored in ponds where they eventually solidify. Even then rains can remobilize acids, cyanides and the heavy metals. Non-metals also are remobilized as well, such as sulfates, nitrates, ammonia, and chlorides, along with radioactivity in some cases. Dry tailings are scattered by winds for many miles, as the tailings particles are so fine. Tailings disposed in hot dry climates (<10" ppt/yr) are safer than others. Revegetation of tailings attenuates the effect of wind and rain, but even then heavy metals can bioaccumulate in the plants growing on the tailings and in the animals that eat them. Cyanide-metal complexes remaining in the heaps releases free cyanide in sunlight.

**5.4.1 Cyanide Toxicity:** Cyanide is so toxic that it is used in stunning ocean fish. When used to stun coral reef fish, it contributes to killing major areas of coral reefs. About 5 micrograms/lit affects fish. Its use has been banned in Turkey and Montana. Cyanide is not 'biocumulative' in the sense that plants and animals accumulate heavy metals. However, some metal-cyanide

complexes can remain stable for decades. Other decomposition products remain toxic to aquatic and other organisms for months or more. Some of the exposed cyanide converts to toxic derivatives, such as cyanate, thiocyanate, chloramines, ammonia or nitrite, depending on local conditions. Sunlight accelerates some of these processes. Where densely shaded, the cyanide decomposes even slower and then into less toxic but longer-lived forms such as cyanate and cyanogens, as amplified by Robert Moran (1998: “Cyanide Uncertainties”. Mineral Policy Center). Bird deaths are commonplace when migratory or other birds land on cyanide tailings ponds.

**5.4.2 Failure of Cyanide Containment:** Dams containing cyanide fail with unacceptable regularity causing massive damage. Esmerelda Exploration Corp of Australia’s Baia Mare gold mine’s cyanide retaining dam near Oradea, Romania, overflowed in January 2000, releasing 100,000 cu mts of cyanide into the Tisza and Danube rivers. Noting that 80% of the Tisza’s fish and the birds that consume them had been killed, Serbia’s environmental minister said it was the worst environmental tragedy since Chernobyl in 1986. Not even bacteria survived in the Tisza, he said.

**5.4.3 Cyanide Releases Heavy Metals:** Cyanide also is effective at separating heavy metals (e.g., Hg, Sb, Cu, Cd, Cr) and metalloids (e.g., As, Se), which are so common in gold ores. This is a major issue with the use of cyanide because heavy metals are both toxic and cumulative. AGK estimate the sulfide ores at Mongbwalu average 2%. High sulfide content (many ores are sulfides, as is pyrites) binds cyanide thus reducing its gold extraction efficiency. Heavy metals becoming soluble and entering the biosphere can be a more severe impact of cyanide use than the direct toxicity of cyanide itself. Mercury is often mobilized by cyanide, it can become the largest source of mercury pollution in the environment, therefore special precautions must be used to prevent this. Most mercury nowadays is from artisanal and small-scale mining which have been widespread around Mongbwalu for many decades, so needs special attention. Although gold cyanidation is an alkaline reaction, it may expedite acid mine drainage years later from the treated sulfides.

**5.4.4 Non-Cyanide Gold Reagents:** AGK most encouragingly informed CDC on May 13<sup>th</sup> 2009 that they may be able to avoid the use of cyanide or may be able to stringently reduce the use of cyanide at Mongbwalu by the use of “carbon” although AGK declined to specify what form of carbon or how it works. But in principle, AGK may well be correct. There exist reagents that can be used in gold extraction instead of cyanide or to vastly reduce the amount of cyanide needed, for example, (a) the Haber Gold Process (Chlorination?) although the process remains proprietary. (b) Hypochlorite (bleach) with cyanide can produce cyanogen chloride (CNCI<sub>2</sub>), a chemical warfare agent. (c) The Carbon-Chloride method being developed at Monash University, but still thought to be experimental. Granular activated carbon said to readily attach to dissolved gold. In view of AGK’s connections and the origin of its geochemical team, this may well be the “carbon” method alluded to in CDC’s meeting with AGK. (d) Thiosulfate: Barrick Corp claims this has real promise, but that still has to be demonstrated. Soluble wastes could be toxic, but probably would be preferable to cyanide. (e) Thiourea works to a certain extent but is itself a suspected carcinogen. (f) Halides: Chlorine, Bromine, Iodide: All halides all have been used to extract gold, but generate waste products comparable in toxicity to cyanide. (g) Butyl diglymine still is in the experimental phase. (h) Mercury: This is the oldest reagent having been used since Roman times to amalgamate gold. Alice-in-Wonderland’s Hatter was



mad because he treated pelts with mercury to make hats. Mercury is not feasible with low gold content ores; most rich ores have already been worked. Mercury is widely used worldwide including at Mongbwalu. Mercury becomes toxic as methyl mercury, which accumulates up the food chain especially in river fish. The environmental impacts of the use of mercury are still being felt in California, Nevada, Amazonia where it was widely used 100 years ago. Mercury is a central nervous system poison that even at sub-clinical levels lowers immunity to malaria, which has devastated some Amerindian tribes such as the Yanomami who lost 80% of their society in the late 1960s.

## **5.5 Policy Options for Cyanide**

1. Mandatory adherence to the UNEP/ICME cyanide would be a start. The number of nations banning the use of cyanide (Montana, Wisconsin, Germany and the Czech Republic) is growing.
2. Some alternatives to cyanide are much less dangerous, but more expensive in the short term. If (a) Economic internalization, (b) the polluter pays principle, (c) escrowed performance (clean-up) bonds or insurance, (d) uniform North-South standards, (e) health care for all affected people & health insurance, and (e) the precautionary principles (i.e., prudent economics) are applied, then cyanide would automatically be phased down. Best practice would follow (a) thru (e) hence making non-cyanide alternatives economic.
3. Gold certified as having been produced without cyanide might be more profitable than cyanide-based gold. The amount of waste (six tons) generated to produce two wedding rings should deter those seeking to conserve the environment.
4. Where the use of cyanide is contemplated, risk assessment, with fully informed prior participation and consent of potentially affected people, is essential and may lead to the use of less risky reagents. The risk assessment will require the normal United Nations aquatic and drinking water standards to be met in all waters to be discharged.
5. Independent monitoring and auditing systems must be in place before start-up. Species related to cyanides – such as cyanates, thiocyanates, cyanogens, CN-metal complexes, especially iron and cobalt cyanides – must be ascertained, reported, and addressed in all prudentiary measures.
6. Detoxification of cyanide, neutralization of acids, and immobilization of heavy metals also are best practice. They are deemed expensive by the industry, but they could be made fully effective by means of strong performance bonds.
7. More prudent specifications for plastic liners and clay barriers would help to reduce the risks of cyanide entering the soil and groundwater during heap leaching.
8. Prudent design, management and audit for tailings dams, waste heaps, and decommissioning are best practice, but their full implementation is urgently needed.

## Sources of further information on the risks of Cyanide

2007. The needs of miners: political ethics, mercury abatement, and intervention in artisanal gold mining communities . This dissertation examines the role of donor-funded international projects to reduce mercury pollution from artisanal and small-scale gold mining (ASM). [hdl.handle.net/2429/435](http://hdl.handle.net/2429/435).

Alberswerth, David. 1992. *Poisoned profits: cyanide heap leach mining and its impacts on the environment*. Washington, D.C., National Wildlife Federation 19 p.

Botz, M., Mudder, T., Akcil, A., 2004; Cyanide treatment: physical, chemical and biological processes, Chapter 6.2.1 in *Advances in Gold Ore Processing*, ed. M. Adams. Elsevier Ltd., Amsterdam, (in press).

da Rosa, Carlos D. & James Lyon. 1997. *Golden dreams; poisoned streams*. Washington DC., Mineral Policy Center.

de Andrade Lima LR, Bernardez LA, Barbosa LA. 2008. Characterization and treatment of artisanal gold mine tailings. *Journal of Hazardous Materials* 11:150(3): 747-753.

Donato D, Ricci PF, Noller B, Moore M, Possingham H, & Nichols O. 2007. The protection of wildlife from mortality: hypothesis and results for risk assessment. *Environ Int.* 34(6): 727-736.

Donato DB, Nichols O, Possingham H, Moore M, Ricci PF, Noller BN. 2007. A critical review of the effects of gold cyanide-bearing tailings solutions on wildlife. *Environ Int.* 33(7): 974-984.

**Dzombak, David A.** Rajat S. Ghosh, George M. Wong-Chong 2006. *Cyanide in water and soil: chemistry, risk, and management*. Boca Raton : CRC/Taylor & Francis, 602 p.

Griffiths SR, Smith GB, Donato DB, & Gillespie CG 2009. Factors influencing the risk of wildlife cyanide poisoning on a tailings storage facility in the Eastern Goldfields of Western Australia. *Ecotoxicology & Environmental Safety* 72(5):1579-1586.

Dedkova LA, Dorogova VB, Petrov VF. 2008. Study of hydrogen cyanide activity in various working environments in gold-mining industry. *Medical Tr. Prom. Ekol.* 8: 34-36.

Du Prel, J.B., Pesch B., Ranft, U. & Troitsky, V. 2001. Investigation of the risk of cyanide in gold leaching on health and environment in Central Asia and Central Europe. Geneva, WHO Collaborating Center for air quality and air pollution control Newsletter 27 (June): 7-14.

Eisler, R., 1991; Cyanide hazards to fish, wildlife, and invertebrates: a synoptic review, *Biological Report* 85(1.23),

Environmental Protection Agency Australia, 1995. *Best practice environmental management in Mining*.

2007. The needs of miners: political ethics, mercury abatement, and intervention in artisanal gold mining communities . This dissertation examines the role of donor-funded international projects to reduce mercury pollution from artisanal and small-scale gold mining (ASM). [hdl.handle.net/2429/435](http://hdl.handle.net/2429/435)]

Duffield, J., & May, P. 1998. *Cyanide management. Best Practice Environmental Management in Mining Series Booklet*, June, Environment Australia and Department of the Environment

Environment Australia. 199\*. "Best Practice Cyanide Management." Botz, M., Mudder, T., Akcil, A., 2004; Cyanide treatment: physical, chemical and biological processes, Chapter 6.2.1 in *Advances in Gold Ore Processing*, ed. M. Adams. Elsevier Ltd., Amsterdam, (in press).

Earthworks & Oxfam. 2004. Dirty metals: Mining, communities and the environment. Washington DC., Earthworks and Oxfam 32 p.

Environment Canada, 1981. Cyanide and the gold mining industry: a technical seminar. Ottawa, Ont., Environment Canada.... Logsdon, M., Hagelstein, K. ve Mudder, T., 1999; The management of cyanide in gold extraction (Booklet), International Council on Metals and the Environment, Ottawa, Ontario, Canada.

Hagelstein, K., & Mudder, T. 1997. Strategies and standards for control of bird mortality at mining operations. Proceedings of the ACMRR Short Course and Workshop on Management of Cyanide in Mining, Sponsored by the Australian Center for Minesite Rehabilitation Research, Environment Australia and North Limited, Perth, Western Australia.

International Council on Metals and the Environment: "The management of cyanide in gold extraction."

International Council on Metals and the Environment, 2001. International Cyanide Management Code. UNEP + Int. Council on Metals and Environment 99p. Combined with Civil Societies (13 institutions) 3 Dec '01 letter to Fritz Balkau, Chief, UNEP concerned about UNEP's code, 4 p.

Internet site providing a wide range of information on the analysis, chemistry, toxicity, environmental fate, treatment, and management of cyanide. [www.cyantists.com](http://www.cyantists.com)

Michnea, A. & Gherheş, I. 2001. Impact of metals on the environment due to technical accident at Aurul Baia Mare, Romania. International Journal of Occupational Med. Environ. Health 14(3):255-

Morna, Bryne Ansin. 2002. Cyanide management in the gold mining industry: the development of an environmental management approach for cyanide transportation, handling, usage and disposal under developing country conditions. Thesis (M.Env.Mgt.), Griffith University.

Moran, Robert E.. 1998. Cyanide uncertainties: observations on the chemistry, toxicity, and analysis of cyanide in mining-related waters. Washington DC., Minerals Policy Center Issue Paper No.1: 16 p.

Moran, Robert E. 2000. Cyanide in Mining. Some Observations on the Chemistry, Toxicity and Analysis of Mining-Related Waters. 12 p. [www.earthworksaction.org/publications.cfm?pubID=60](http://www.earthworksaction.org/publications.cfm?pubID=60).

Moran, Robert E. 2001. More cyanide uncertainties: lessons from the Baia Mare, Romania, spill – Water quality and politics. Washington DC., Minerals Policy Center, Issue Paper No. 3: 15 pp.

Mudd, G.M. 2007. Global trends in gold mining: Towards quantifying environmental and resource sustainability. Resources Policy, 32 (1-2), pp. 42-56.

International Journal of Hygiene and Environmental Health Volume 211, Issue 5-6, 1 October 2008, Pages 615-623

International Journal of Hygiene and Environmental Health Volume 211, Issue 5-6, 1 October 2008, Pages 615-623

Obiri S, Dodoo DK, Okai-Sam F. & Essumang DK. 2006. Non-cancer health risk assessment from exposure to cyanide by resident adults from the mining operations of Bogoso Gold Limited in Ghana. Environmental Monitoring & Assessment 118(1-3): 51-63.

Ramessar, Candice Rowena. 2003. Water is more important than gold local impacts and perceptions of the 1995 Omai cyanide spill, Essequibo River, Guyana. Blacksburg, VA: University Libraries, Virginia Polytechnic Institute and State University.

RTI International, 2006. Cyanide: understanding the risk, enhancing preparedness. *Clinical Toxicology* 44 Suppl. 1: 47-63.

Siegel, Shefa, 2007. The needs of miners, political ethics, mercury abatement, and intervention in artisanal gold mining communities. Vancouver : University of British Columbia, 207 p. [hdl.handle.net/2429/435](http://hdl.handle.net/2429/435)

Yarar, Baki. 1999. Alternatives for cyanide in process metal extraction and methodologies for the destruction of environmental cyanide. Central Asia Ecology meeting, Kyrgistan, Lake Issyk Kul, Soros Foundation.

## 6. Water Use

Industrial water use: Gold mining can abstract, use and pollute vast volumes of water in the industrial processes of winning ore, washing ore, and other stages of gold mining. Honduras for example uses 220 gallons/minute (x24hrs). SRK report notes 90 cu mts per what???? will be used in the tiny “tailings” project.

The reality is that there need not be a water problem at Mongbwalu as there can be in arid region gold mines. Despite the perhumid climate and the high (c.2.9m/yr) rainfall, clean water is scarce throughout the Mongbwalu region. Water won't run short, but clean water may very well do so. In addition, great care will be needed to keep AGK's poisons (e.g., cyanide, acid mine drainage) out of the ground water because most families obtain their domestic water from wells. There doesn't seem to be much information about Mongbwalu's water needs, but the ESIA needs to scrutinize the issue. The volume of water used needs to be measured and attempts made to reduce that volume annually. All water used should be treated and re-used, rather than abstraction new water. All wastewater that cannot be re-used by AGK should be treated to agreed on water quality standards before release back into the environment. Best practice is “Zero Discharge” in which wastewater and storm water runoff is collected, treated and re-used.

### Sources of Information on Water

BBC, 2009. Gold rush DR Congo. Local residents claim that new cases of serious water pollution and flooding are still occurring and that alternative sources of water provided by AGA, such as public standpipes, are dangerously contaminated, broken or obsolete. [www.eldis.org/ cache/DOC16927.pdf](http://www.eldis.org/cache/DOC16927.pdf). Country Profile.

Behets F, Mutombo GM, Edmonds A, Dulli L, Belting MT, Kapinga M, Pantazis A, Tomlin H, Okitolonda E; PTME Group 2009. Reducing vertical HIV transmission in Kinshasa, Democratic Republic of Congo: trends in HIV prevalence and service delivery. *AIDS Care* 21(5): 583-590.

Epstein, Helen. 2007. *The Invisible Cure: Africa, The West, and the Fight Against AIDS*. New York, Farrar, Straus and Giroux, 326 p.

Moran, C.J. 2006. Linking the values of water to sustainability. *Proceedings, Water in Mining Conference*, pp. 113-121. Australasian Institute Of Mining & Metallurgy, Brisbane.

Norgate, T.E., Lovel, R.R. 2006. Sustainable water use in minerals and metal production. Australasian Institute of Mining & Metallurgy, Newcastle *Proceedings, Green Processing: 3rd International Conference on the Sustainable Processing of Minerals*, pp. 133-141

Putthividhya, A. 2008. Competitive sorption of multiple component heavy metals from gold mining leachate onto laterite soil. *Mine Water and the Environment* 27(3): 136-144.

Strategic water management in the minerals industry: A framework. (2006) *Minerals Council of Australia (MCA) and Ministerial Council on Mineral & Petroleum Resources (MCMPR)*, p. 36.  
MCMPR and MCA ACT, Canberra

WHO, 2009. Outbreak news. Yellow fever, Republic of the Congo.[No authors listed] *Wkly Epidemiol Rec.* 2009 May 8; 84 (19): 161.

## 7. Biodiversity

Mongbwalu is situated in the Ituri rainforest, which supports the greatest mammalian biodiversity of all Congo's forests, hence is way up on any scale of world biodiversity values (Hart et al 1986, Gubista 1999, Rahm 1966).

The major threats to biodiversity from a mine such as that proposed for Mongbwalu are first: forest removal to make way for a large open-cast mine, and to provide room for overburden dumps and waste water lagoons. Second, leaks and spills of toxic substances from the dumps and lagoons can kill forests downstream. Third, relatively well-paid miners hunt during their off-time, often with high-powered weapons, wire snares, and powerful searchlights. Fourth, miners and company officials create a market for bush meat which intensifies poaching. Fifth, because a mine's access road often creates a bigger impact than the mine itself, the potential access roads were observed. Often an existing track is upgraded by the mining corporation when the need arises. As soon as any track through forest is upgraded for the mine project, unplanned settlements spring up fast both sides of the new road, clearing forest for small farm plots, logging for sale of timber, and charcoaling. Most settlements are small farmers or swidden (slash-and-burn) farmers. Some families settle to sell services (food, fuel, repairs etc) to the increased mining traffic. Thus a recently upgraded road for a proposed mine can create impacts (e.g., deforestation, artisanal mining, hunting) five kilometers or more along the entire length on each side of a 10-m-wide road.

The 65-Km-long existing Bunia to Mongbwalu road has long since been settled and is now fairly intensively farmed. Practically no forest was seen along its length until just before Mongbwalu. The encouraging and unusual fact is that not a single logging truck was seen during our visit. The ESIA will of course check if logging is taking place in the general region, but the first impression is that logging is not the major problem of biodiversity loss it often is in such cases. Charcoal is a major product in the Mongbwalu region. Presumably much comes from the forest. The ESIA should assess the risks of charcoaling to biodiversity loss.

AGK has about half a dozen exploration camps in its concession area.

1. D7K.
2. Saio: Population c. 6000, the nearest and right behind AGKs Mongbwalu office,.
3. Lodjo: The only forested site so far.
4. Kunda.
5. Koba.
6. Kunda-2.

As exploration is continuing, more such sites may well be added.

AGK says that the only potential mine site in forest is at Lodjo, about 27 Km beyond Mongbwalu and 16 Km before the Ituri river. All the rest are in deforested farmland although there may be patches of remnant forest away from the road. All sites in farmland from which the forest has long since been removed will have relatively modest impact on biodiversity. For these reasons the Lodjo site is likely to create by far the biggest impact on biodiversity of all AGK's potential mine sites. The 27-Km-long road between Mongbwalu and Lodjo contains valuable equatorial rain forest, the most species-rich forest on earth. This stretch is not totally untouched as there are patches of shifting cultivation both sides of the road; logging (especially Mopio & N'Goma-N'Goma) and charcoal-making is proceeding apace. Even so, much of this forest is relatively untouched, hence the biodiversity values are very high.

The village leaders and teachers informed us that monkeys are heard every evening in Lodjo itself and in most of the surrounding villages. Antelope, Okapi, Aricoa, Magistram, Bifle, Sangrier (Boar), CheChe, big Pythons and forest floor game-birds (Pentade) are relatively common. Elephants, Baboons and Chimps are still present although rarer. The recommendation is clear. Proponents wanting to reduce impacts on biodiversity would exploit non-forest mines before forested mine sites.

## **7.1 Greenhouse Gas Emissions**

AGK will probably monitor all GHG emissions and have a corporate policy of starting low and decreasing GHG emissions through the years. In AGK's Mongbwalu mine, the biggest opportunity is to mine non-forested sites while leaving forest sites intact. Tree planting as GHG offsets is valuable and low cost. Conservation of non-corporate forest and support to preventing forest fires also are good opportunities to reduce GHG emissions. GHGs emitted from diesel, cement, explosives etc all should be monitored.

## **7.2 Compensatory Offsets**

If it proves unavoidable for AGK to damage some forest and AGK wants to follow best practice by establishing a Compensatory, biodiversity, ecological or environmental Offset, then one could be financed in the nearby Okapi National Park or similarly already protected areas. Compensatory offsets are designed to ensure that the net environmental impact of the project is nil. There should be no net loss of habitat and preferably an increase in conserved habitat over that removed for the project.

Offsets prevent damage by redesigning the development project away from sensitive areas and over to less sensitive areas. This will still leave residual environmental damage. The second step is to minimise or mitigate the environmental damage through actions on the development site such as rehabilitation of affected areas.

Where there is still a residual environmental impact, compensatory environmental offsets are required of an equivalent value.

The compensatory offset may include a suite of actions including establishing an area as a permanent offset under protection, restoring and rehabilitation of similar habitats, removing threatening processes and maintaining ongoing management obligations.

Ongoing protection of the offset activity is generally secured by purchasing the land on which the offset is established, adding financing in perpetuity, or attaching a covenant to the land. This reduces the risk of losing the offset benefits due to a change in land use on the offset site. Compensatory offsets are amplified by: [marketbasedinstruments.gov.au/DesigningMBIs/Designprinciples/Environmentaloffsets/tabid/146/Default.aspx](http://marketbasedinstruments.gov.au/DesigningMBIs/Designprinciples/Environmentaloffsets/tabid/146/Default.aspx); and by: ten Kate, K, Bishop, J., and Bayon, R. 2004. Biodiversity offsets: Views, experience, and the business case. IUCN, Gland, Switzerland and Cambridge, UK and Insight Investment.

### **Box 6: The Okapi National Park**

The Okapi Wildlife Reserve was created in 1992 to conserve a representative area of the Ituri rain forest in north-eastern Zaire, hence would be an appropriate Compensatory Offset for any unavoidable forest destroyed by AGK's Mongbwalu Gold Mine. Priority is to integrate the local population into reserve management and to empower people as much as possible to manage their own resources. Nature tourism, the fastest growing sector of the \$US3 trillion (3 million million) a year global tourism, industry, may offer a source of revenue to help fill this gap in funds. Congo Basin national parks and reserves harbor many charismatic animals (okapi, lowland gorilla, mandrills, bongo, forest elephant) that are likely to attract tourists, and as a result many protected-area managers are sinking capital into the development of tourist infrastructure. The long-term future of the reserve in the context of national economic and political instability of discussed.

## **7.2 Fish**

For a rainforest area of 2000 mm of rainfall annually containing massive rivers, the fish situation is dire. From Bunia to Mongbwalu and on to the Ituri River, artisanal gold mining has essentially destroyed the fish fauna. Although there are fish stalls and fish-sellers in all villages, they sell only Lake Albert fish, fresh, dried and smoked. Even the fish shop on the bank of the Ituri River at the ferry to Galaya sells only Lake Albert fish. Orpaillage fills the rivers with so much silt and clay that most fish cannot survive. A characteristic of all rivers in the greater Mongbwalu region is the bright red color and very high silt/clay content of the water. The huge Ituri River itself, at least as seen near Lodjo, is slightly less red and viscous, but in view of the artisanal gold mining right at the Ituri ferry, that too supports practically no fish. Only by controlling artisanal mining and reducing deforestation can the silt loads in rivers be lowered.

As all the rivers seen were so extremely silt-laden, establishing a base-line for subsequent water quality assessment before AGK begin operations will be a challenge.



During our five day visit to the Mongbwalu region, we could not find any fish hooks for sale, nor any nets for sale or drying on roofs, or being repaired. We saw no basketwork fish traps being used or for sale.

In a brief season, Lodjo Dubele village leaders and teachers reported that fish are indeed sometimes caught in the Ituri River (e.g., Small-Capitaine, Nassus, Samaki, M'Bongi, Makaranta).

### **7.3 Poaching and the Bush-Meat Trade**

The Congo Basin supplies about one million metric tonnes of bush meat annually. It is an international multi-billion dollar industry. While we visited all country and village markets, we always asked if bush meat (Gibier) was on sale. Interestingly, of the couple of dozen times we asked that question, the answer was much the same. No, there is no bush meat on sale here. Sales of Bush Meat are strictly controlled or prohibited. You have to order the bush meat and it will be delivered to your house in less than one week's time. There is commercial poaching (Bracconage) in the region, but not to supply insatiable markets in a capital city restaurant specializing in bush meat. The odious Cameroon bush meat trade directly to Parisian Restaurants is not repeated in the Bunia/Mongbwalu region.

However, as soon as well-paid AGK officials arrive when mine construction begins, poaching will increase, and the demand for bush-meat will burgeon unless stringent policies are put in place. AGK must enforce the rules of zero bush meat on their premises at any time, or in AGK vehicles and camps. Anyone caught with bush meat equipment (snare, traps, nets, cages, body parts, searchlights) shall be fired immediately. Buying, selling, possessing, consuming, or transporting bush meat or products, such as ivory, elephants feet, chimps hands, leopard and other skins also shall trigger permanent dismissal from AGK and all its contractors.

### **Biodiversity Sources**

Anon, 2003. Demand for bush meat is killing great apes. *Journal of Wildlife Rehabilitation* 26 (4): 33-33.

Brown D, Williams A 2003. The case for bush meat as a component of development policy: issues and challenges. *International Forestry Review* 5 (2): 148-155.

Butynski, T.M. & Kalina, J. 1998. Gorilla tourism: A critical look. *Conservation of Biological Resources*, pp. 294-313. in: eds E. J. Milner-Gulland and R. Mace, Blackwell Science Ltd, Oxford, UK.

CIFOR, The World Bank and CIRAD. 2007. Forests in post-conflict Democratic Republic of Congo: analysis of a priority agenda. [www.cifor.cgiar.org/.../BCIFOR0701.pdf](http://www.cifor.cgiar.org/.../BCIFOR0701.pdf) .

de Merode E, Homewood K, Cowlishaw G. 2004. The value of bush meat and other wild foods to rural households living in extreme poverty in Democratic Republic of Congo. *Biological Conservation* 118 (5): 573-581.

Doumenge, C.1990. La Conservation Des Ecosystemes Forestiers du Zaïre. IUCN Tropical Forest Programme, IUCN, Gland, Switzerland.

- Draulans D, Van Krunkelsven E 2002. The impact of war on forest areas in the Democratic Republic of Congo. *Oryx* 36 (1): 35-40.
- Fa JE, Ryan SF & Bell DJ 2005. Hunting vulnerability, ecological characteristics and harvest rates of bush meat species in afrotropical forests. *Biological Conservation* 121 (2): 167-176.
- Harako, R. 1976. The Mbuti as hunters: A study of ecological anthropology of the Mbuti pygmies. *Kyoto University African Studies* 10: 37-99
- Hart, J.A., Hart, T.B. 1988. A summary report on the behavior, ecology and conservation of the okapi (*Okapia johnstoni*) in Zaïre. *Acta Zoologica et Pathologica Antverpiensia*, 80:19-28.
- Hart, T.B., Hart, J.A. & Hall, J.S. 1996. Conservation in the declining nation state: A view from eastern Zaire. *Conservation Biology*, 10 (2): 685-686.
- Hart, J.A. 1978. From subsistence to market: A case study of the Mbuti net hunters. *Human Ecology* 6 (3): 325-353.
- Hart, J.A. 2001. Diversity and abundance in an African forest ungulate community and implications for conservation. *African Rain Forest Ecology and Conservation*: 183-206.
- Hart, T.B., Hart, J.A. 1986. The ecological basis of hunter-gatherer subsistence in African Rain Forests: The Mbuti of Eastern Zaire. *Human Ecology* 14 (1): 29-55.
- Hart, J.A., Hart, T.B., Thomas, S.C. 1986. The Ituri Forest of Zaïre: Primate diversity and prospects for conservation. *Primate Conservation* 7:42-44.
- Gubista, K.R. 1999. Small mammals of the Ituri Forest, Zaire: Diversity and abundance in ecologically distinct habitats Kahuzi-Biéga National Park, Democratic Republic of Congo. The Kahuzi-Biega National Park (2°30'S 28°45'E) is a World Heritage Site located in the DR Congo. A wide expanse of primary tropical forest in two zones: high mountain range and a wide area of low mountains, the range dominated by two extinct volcanoes, Mts Kahuzi and [www.eoearth.org/.../Kahuzi-Bi%C3%A9ga\\_National\\_Park,\\_Democratic\\_Republic\\_of\\_Congo](http://www.eoearth.org/.../Kahuzi-Bi%C3%A9ga_National_Park,_Democratic_Republic_of_Congo)
- Rahm, U. 1966. Les mammifères de la forêt équatoriale de l'est du Congo. *Annales du Musée Royal D'Afrique Centrale. Série 8, Zoologie*, 149, pp. 38-121
- Stephenson, P.J., Newby, J.E. 1997. Conservation of the Okapi Wildlife Reserve, Zaire. *ORYX*, 31 (1): 49-58
- Brown D. & Williams A. 2003. The case for bushmeat as a component of development policy: issues and challenges. *International Forestry Review* 5 (2): 148-155.
- Stephenson, P.J. & Newby, J.E. 1999. Conservation of the Okapi Wildlife Reserve, Zaire. *Journal of Mammalogy* 80(1): 252-262 .
- Stephenson, P.J. (ed.) 1994. Management Guidelines for the Okapi Wildlife Reserve, Zaïre. IZCN, Kinshasa, Zaïre, and WWF, Gland, Switzerland.
- Vermeulen, C. and J. L. Doucet. 2006. Strategies nouvelles et recompositions sociales autour de la faune dans le Bassin du Congo. *Biotechnologie, Agronomie, Société Et Environnement: BASE*. 10 (3): 251-257.
- Weber, W. 1998. Conservation des Primates et Ecotourisme en Afrique. New York, Bronx, Wildlife Conservation Society.

Weber W, White LJT, Vedder A, Naughton-Treves L (eds) 2001. African Rain Forest Ecology and Conservation: An Interdisciplinary Perspective. New Haven, Yale University Press, 588 p.

Wilkie, D.D., & Finn, J.T. 1990. Slash-burn cultivation and mammal abundance in the Ituri Forest, Zaire. *Biotropica* 22: 90-99.

Wilkie DS. & Carpenter JF. 1999. Bushmeat hunting in the Congo Basin: an assessment of impacts and options for mitigation. *Biodiversity & Conservation* 8 (7): 927-955.

Wilkie, D.S. & Carpenter, J.F. 1999. Can nature tourism help finance protected areas in the Congo Basin? *Oryx* 33 (4): 332-338.

Wilkie, D.S., Carpenter, J.F. The under-financing of protected areas in the Congo Basin: So many parks and so little willingness-to-pay. *Biodiversity and Conservation*

## Recommendations

### 1. Recommendations to the DRC Government

The Democratic Republic of Congo (DRC) must create sound legal systems if it is to attract more private investors and kick-start growth. The DRC needs to improve its legal framework in order to create a completely different climate of investment, according to Jean-Michel Happi, the World Bank's DR Congo representative. The DRC is considered one of the worst places to do business according to the World Bank's Happi.

The Government knows that governance in the more remote regions of their gigantic country is weak and, on occasion, almost absent. The government has scarce resources and has more urgent priorities than extending governance to the most remote regions. In view of this reality, the Government may want to focus on those low-cost activities that can protect its citizens and enhance development in remote regions. Mongbwalu is such a tremendous opportunity for the Government. By far the Government's most powerful lever in protecting its citizens potentially impacted by the proposed Mongbwalu gold project is include prudent social and environmental provisions in the DRC/AGK mining permission contract now being drafted.

**1.1 The National Mining Code:** Contrary to earlier statements by the Mining Ministry, the government is not going to change the Mining Code that was put in place by the World Bank in 2002. The law was clearly written in the best interest of foreign mining companies, and not the Congolese people.<sup>12</sup>

**1.2 AGK's Mining Permit:** This permit, among all the financial, economic, geologic etc provisions also should contain social and environmental provisions. Examples are listed below. DRC requires all mining concessionaires to adopt, adapt, discuss widely and disseminate a suite of prudent social and environmental policies<sup>1</sup> before the mining exploitation permit can become ratified or comes into force. CdC/Cafod have discussed what provisions should be in AGK's forthcoming mining permit and have offered to review it in draft for government before it is finalized. Ideally, CdC/Cafod should invite their national representatives or members of parliament to work together on the draft permit. If the ideal cannot be achieved, then the Government should present the contract to all stakeholders as soon as it is completed.

**1.3 National Environment Law:** Most nations have long since had effective environmental laws and regulations. DR Congo laws are absent, weak and rarely enforced.

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<sup>12</sup> IPS, 2003. World Bank Should Revamp Loans to Mining Schemes . The World Bank should revamp its lending policies for mining, oil and gas projects to avoid corruption, mismanagement and poor economic performance spreading in countries that rely on such industries, says a confidential study by the Bank's internal review body. [www.50years.org/cms/updates/story/3](http://www.50years.org/cms/updates/story/3).

Legislation cannot prevent damaging pollution such as from toxic lagoon spills, nor protect biodiversity or any other aspect of environment for some years until GoDRC enacts meaningful laws and above all has the capacity to enforce them. DR Congo would be well served if it joined the family of nations possessing meaningful environmental legislation and the means to enforce it. UNEP is willing to support CR Congo in drafting such legislation. Until such legislation, DR Congo's rich and irreversible environment will continue to be destroyed to the nations detriment and to the severe harm of its citizens. In the absence of such legislation, DR Congo will never be able to protect environment from mining in any difference of opinion. Mongbwalu's ESIA should assess the priorities for strengthening legislation and foster enforcement.

## 2. Recommendations to AGK

2.1 **Choose, publish and enforce your own standards:** There are many standards, codes-of-conduct, principles etc from which to choose, and CdC/Cafod are willing to provide samples upon request. AGK have already announced that they propose to follow Anglo's corporate HIV/AIDs policy,<sup>13</sup> which is a good start. AGK have mentioned ICMC's principles, although these are not all best practice. The Box below mentions just some of the codes as example of norms from which to choose. Standards and policies extant from which AGK can choose are noted in the Box below. AGK would be well advised to seek inputs from the PoE, CdC and Cafod in choosing which suite of norms to adopt for Mongbwalu.

### Box 7: International Environmental and Social Norms

[Selected examples only]

- **EITI: The Extractive Industries Transparency Initiative** Plus Plus (EITI++) seeks to develop national capability to handle the boom in commodity prices, and channel the growing revenue streams into fighting poverty, hunger, malnutrition, illiteracy, and disease. [web.worldbank.org/WBSITE /EXTERNAL/.../0, contentMDK:21727772~page PK:34370~piPK: 34424~theSitePK14](http://web.worldbank.org/WBSITE/EXTERNAL/.../0,contentMDK:21727772~page PK:34370~piPK: 34424~theSitePK14). DR Congo has participated in EITI since March 2005.
- **UNDRIP: The United Nations Declaration on the Rights of Indigenous Peoples:** The Declaration establishes a universal framework of minimum standards for the survival, dignity, well-being and rights of the world's indigenous peoples, and mandates the use of Free Prior and Informed Consent (FPIC).
- **OECD Principles:** The Principles assist governments in their efforts to improve the legal, institutional and regulatory framework for corporate governance in their countries, and to provide guidance and suggestions for stock exchanges, investors, corporations, and other parties that have a role in the process of developing good corporate governance. [www.oecd.org /dataoecd/ 32/18/ 31557724.pdf](http://www.oecd.org /dataoecd/ 32/18/ 31557724.pdf)
- **IRMA: The Initiative for Responsible Mining Assurance** (IRMA) is a multi-sector effort to develop and establish a voluntary system to independently verify compliance with environmental, human rights and social standards for mining operations. [info@mail.responsiblemining.net](mailto:info@mail.responsiblemining.net)

<sup>13</sup> AGA already has an HIV/AIDS manager, Dr James Steele, at head office, which bodes well and suggests that AGAs commendable AIDS policy will be followed at Mongbwalu.

<sup>14</sup> Key stakeholders in the Democratic Republic of Congo gathered at an international EITI Forum held in Kinshasa 8-9 January 2008, to mark the progress their country has made in implementing the Extractive Industries Transparency Initiative (EITI). It looks likely that the EITI Board will find that the DRC now has shown sufficient progress in meeting the necessary requirements to receive status as a EITI Candidate, when the Board holds its meeting in Ghana 22 February 2008.

- **The Sustainable Mining Initiative:** [www.mining.ca/www/media\\_lib/TSM\\_Presentations /KrugerCIM](http://www.mining.ca/www/media_lib/TSM_Presentations/KrugerCIM).
- **The Voluntary Principles on Security and Human Rights:** a global initiative bringing together mining and oil companies, governments, and nongovernmental groups
- **The Equator Principles:** These voluntary and self-reported principles are based on the environmental and social safeguard policies of the World Bank Group and the standards of its subsidiary International Finance Corporation (IFC): Adverse effects on people and the environment must be avoided to the greatest possible extent. Child labor and forced labor are forbidden. Collective wage agreements must be honored. [www.equator-principles.com](http://www.equator-principles.com)
- **The Extractive Industry Review:** Strengthen governance systems before investing in extractive industries; Refuse to support extractive industry investments in situations characterized by conflict, oppression or systemic corruption; Adopt a rights based approach to development; Promote transparent revenue management and just revenue sharing; Obtain the free prior and informed consent of indigenous peoples and local communities before financing an extractive investment; Increase support for renewable energy by twenty percent per annum; Adopt all four core labor standards and support workers laid-off by mine closings; and Strengthen or adopt a wide range of social, environmental and information disclosure policies. [www.eireview.org](http://www.eireview.org).
- **Corporate Social Responsibility:** CSR is a form of corporate self-regulation integrated into a business model. CSR seeks to function as a built-in, self-regulating mechanism whereby business monitors and ensures adherence to law, ethical standards, and international norms. Business internalizes responsibility for the impact of their activities on the environment, consumers, employees, communities, stakeholders and all other members of the public sphere. Business proactively promotes the public interest by encouraging community development, and voluntarily eliminating practices that harm the public sphere, regardless of legality. Essentially, CSR is the deliberate inclusion of public interest into corporate decision-making
- **The UN Global Compact:** The UN Global Compact's ten principles in the areas of human rights, labor, the environment and anti-corruption enjoy universal consensus and are derived from: The Universal Declaration of Human Rights, The International Labor Organization's Declaration on Fundamental Principles and Rights at Work, The Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.
- **The Kimberley Process:** a joint initiative to stem the flow of "conflict diamonds" - used by rebel movements to finance wars against legitimate governments. Caveat: The Kimberley Process Certification Scheme (KPCS) warns that it is not failsafe. Despite having all the tools in place, the scheme may still fail to address effectively issues of non-compliance, smuggling, money laundering and human rights abuses.
- **Initiative for Responsible Mining Assurance:** (IRMA) The multi-sector, multi-stakeholder/rightsholder initiative for responsible large-scale mining certification.
- **The Environmental Liability Directive:** (2004/35/EC) [www.defra.gov.uk/environment/liability/](http://www.defra.gov.uk/environment/liability/) seeks to achieve the prevention and remedying of environmental damage - specifically, damage to habitats and species protected by EC law, and to species or habitat on a site of special scientific interest for which the site has been notified, damage to water resources, and land contamination which presents a threat to human health. It reinforces the "polluter pays" principle - making operators financially liable for threats of or actual damage. Note: The EU's Liability Directive is

similar to: the USA's similar law " The Comprehensive Environmental Response, Compensation and Liability Act."

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- **IPIECA Guidance Document on Sustainable Social Investment:** This document applies only to proponents' social investment programs, and not to community engagement on impacts and compensation. 1: Discusses how to build capacity for local authorities, use local partners to build the proponent's capacity. Mentions the need to lay groundwork for community capacity strengthening, but does not provide guidance on how to do this. Recommends participatory approaches, but does not distinguish between different levels of community involvement. Recommends that social investment programs begin at the time of business project design and "well before the arrival of company trucks"
- **The ECOWAS Directive on the Harmonization of Guiding Principles and Policies in the Mining Sector:** contains useful elements.[http://www.africanmanager.com/site\\_eng/articles/13194.html](http://www.africanmanager.com/site_eng/articles/13194.html)
- **UN ILO Convention 169.**
- **The International Convention on Economic, Social and Civil Rights:**
- **The International Convention on Elimination of all forms of racial discrimination:**
- **Convention on the prevention and punishment of the crime of genocide:**
- **Voluntary Principles on Security and Human Rights,**
- **The U.N. Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with regard to Human Rights,**
- **The OECD Guidelines for Multinational Enterprises.**

CdC and civil society are deeply concerned with recent international cases,<sup>15</sup> hence are striving to prevent such cases at Mongbwalu. The weakest link is not what policies to choose from, nor even which to adopt. Much more important is the balance between voluntary and mandatory, self-reporting and third party independent audits, and above all their implementation by experienced in-house professionals.

**2.2 Impact-Compensation Contract:** The final crucial link between the environmental and social management plan near the end of the ESIA and the "Impact-Compensation Contract" leads to FPIC. This means the use of force by AGK has been prevented and the whole mine becomes consensual with improved benefit sharing.

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<sup>15</sup> (1) In June 2009, Shell Oil Corp in Ogoniland Nigeria settled the lawsuit in the US Federal Courts of New York 14 years after Nobellist Ken Saro-Wiwa and 8 other Ogoni ethnic minority leaders were executed. (2) Chevron faces a \$27 million lawsuit in Ecuador for polluting the rain forest. (3) ExxonMobil is being sued in Aceh Indonesia for human rights violations by security forces guarding a natural gas plant. (4) California's Unocal Oil Corp was sued for using slave labor to construct the Burma to Thailand gas pipeline from 1992. Chevron fought the lawsuit for many years and then settled out of court in 2005.



**2.3 Benefits Allocation:** AGK should be encouraged to accept to channel a fair share of benefits to the impacted community, such as jobs for locals, training for jobs for locals, local procurement (e.g., chickens, vegetables, fruits, revegetation seedlings), local service providers (e.g., custodians, laundry, repairs, maintenance, drivers, machinery operators – women are safer and more reliable than men so should get preference), schools, clinics, immunizations campaigns, public health campaigns, free gravity water supply to save women carrying 40 lts of water for c.1000 m several times a day, free electricity at the basic “lifeline” rate to each household; pre-paid rates for any electricity consumed above the “lifeline “ rate.

**2.4 Special Gold Monitoring Body:** HRW (2005) strongly recommends that AGK helps to establish and fund a '**special gold monitoring body**' comprising of representatives of international mining corporations, OKIMO, district authorities, national government authorities, donors, U.N. agencies, trade unionists and civil society to monitor compliance with human rights and sustainable development standards and to consider compensation for victims of human rights abuses to which gold mining activity in northeastern Congo may, directly or indirectly, have contributed.

**2.5 Choose underground before opencast mining:** This will save villages from being displaced and less land will be taken for overburden dumps.

**2.6 Choose non-Cyanide Extraction Methods:** AGK state that they can choose to use cyanide or non-cyanide extraction methods. Any non-cyanide method is likely to be much lower impact than the use of heap-leach cyanide.

**2.7 Choose non-forest sites to mine before mining forested sites.** There is a trade-off because non-forest sites probably contain villages. More biodiversity will be conserved by mining in non forest sites. Fewer people will be displaced by mining in forested sites.

### 3. Recommendations to CAFOD

**3.1 Persistence:** If CAFOD may not be able to stay involved over the long haul, don't raise expectations. Long term involvement will be necessary if CAFOD and CdC are to protect the communities they represent and the environment on which they depend. Trust-building takes time and cannot be accelerated. Although long term involvement is necessary, it need not be intensive. Much nowadays can be done by email. CdC is well equipped with email and adept in its use. Personal involvement would be timed for critical decision points such as when the adjusted mining contract is available or when the ESIA begins. When CAFOD staff come to Ituri, then training and other priorities can be piggy-backed before and after the key event.

**3.2 Training:** CAFOD could play a most effective role in training, the most urgent need of CdC. UNEP will put on an intensive course of ESIA on request, so can MER Netherlands. Sending one CdC staff member a year to do a 12-month magisterial degree in Environmental and Social Assessment before AGK's big ESIA begins -- will be very effective.

**3.2.1 In-Country Training Courses:** The challenge is to ascertain the best balance between in-country training and overseas training. Staff from the Environmental Ministry, CdC, Ministry of Mining and AGK should be included systematically. An intensive week-long course as the basic introduction to ESIA should be repeated a couple of times annually for the next several years, or until AGK's ESIA has been completed.

The four main topics for training are first the ESIA of mining projects with emphasis on gold mining. Second, environmental regulations, such as the Mining Code and the government/AGK contract. The Ministry of Environment should be drafting standard procedures to be included on mining permits and mining codes. Related to standardizing the permitting process, Ministry of Mining and Ministry of Environment should integrate standard environmental and social clauses into the Mining Permit Agreements.

Third, community engagement: how to do it, how it works and its great value before the ESIA begins. Kirk Herbertson<sup>16</sup> may be contacted at WRI for such a course. Community engagement is important because even as much of the world slides toward an economic slump, extractive industries in resource-rich countries are expected to remain an important source of national income and economic growth. But there is often a downside to inherently environmentally and socially disruptive activities, such as mining and petroleum extraction. Particularly in developing countries, strong governance and human rights systems are not yet in place to ensure that such projects do not inadvertently harm the well-being and livelihoods of local communities. Such impacts not only create risks for poor communities, but also for companies, investors and

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<sup>16</sup> Kirk Herbertson, Maria Athena Ballesteros, Robert Goodland & Isabel Munilla. 2009. Breaking Ground: Engaging Communities in Extractive and Infrastructure Projects. Washington DC, World Resources Institute 38 p.

governments. In a world in which communications are virtually instantaneous and reputation has enormous global value, the institutions building and backing extractive projects simply cannot afford not to engage in meaningful dialogue with those their enterprise affects. Indeed, many companies and financial institutions have already responded—by joining initiatives that provide standards on best industry practices, or by working to improve their own methods of community engagement. Rio Tinto and DeBeers, for example, have negotiated agreements with communities on how to avoid harm and provide benefits. In so doing, they have gained strong local support for projects, while communities have seized opportunities for development (Herbertson, 2009).

Fourth, monitoring compliance with such regulations, also known as compliance audits. Fourth, remedies or penalties for non-compliance, such as fines, compensation, performance bonds, escrow accounts and triggering insurance. Conflict management should be included in the most appropriate course.

**3.2.2 Overseas Training:** Appropriate candidates, mainly from CdC should be sent overseas for advanced training in environmental and social assessment. For example, UNEP and other UN members sponsor a one years Masters Degree without a thesis at McGill University, Montreal.<sup>17</sup> McGill also offers a 2-year environmental Masters degree. CEMP, Aberdeen, has short courses on environmental assessment, with emphasis on the hydrocarbon sector. CEMP also offered one-year ESIA courses. The optimal scope of such training needs to be discussed and agreed. Probably a few government officials and CDC members to represent potentially impacted stakeholders need to be sent annually for a one-year environmental Masters course or equivalent at least until the ESIA of the mine has been accepted.

**3.2.3 Environmental Assessment Training:** The urgent priority for specialists should undertake ESIA training in country seasoned in Africa, preferably experienced in the mining sector and in francophone West Africa. The ESIA specialists should contract to return to provide ESIA training of various types a few times a year for several years. The ESIA Specialists should be asked to put on the first ESIA courses, compile training materials, and design the ESIA course needs for the next five to ten years even if they personally cannot allocate five years to that task. UNEP 's Dr. Hussein Abaza (hussein.abaza@unep.ch) is the force behind UNEP's excellent ESIA Training Manual (French version available) so is a useful source of advice on potential candidates for foreign advisory positions. Mr. Mohammad Rafiq (mohammad.rafiq@iucn.org) head of IUCN's Business section also is a good source of advice on ESIA candidates, and on ESIA's of mining.

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<sup>17</sup> The University of Cape Town offers a 12-month MSc in environment by course work. McGill University includes courses on: Advanced Environmental Assessment, Environmental Assessment Knowledge Base, Strategic and Sectoral Environmental Assessment, Meeting Environmental Assessment Regulations, Environmental Assessment Internship, Environmental Assessment Project Paper, Environmental Assessment: Institutional Approaches.

**3.2.4 Study Visits to Learn Best and Worst Practice:** The most valuable would be to learn Best and worst practice. Study Tours are valuable in strengthening capacity. Cafod should advise CdC of some good examples of mines and some bad examples of what to avoid. The PoE and AGK's views on sites to visit also should be obtained.

## **4. Recommendations to CdC**

**4.1 CdC's Uniqueness:** CdC is playing a unique role in protecting communities from the worst impacts of Mongbwalu. I have not seen such effective mobilization to an impending mining project anywhere else. The fact that CdC has organized themselves so early in the mine process evolution, rather than waiting until the impacts start to harm the communities, also is unique in my experience of extractive industries. For these reasons, it would be highly appropriate for CAFOD to continue to support them in their work.

**4.2 CdC's Relationships with AGK:** CdC's relationships with AGK are likely to be long, arduous and difficult. AGK's repeated slogan that they want to be "brothers" and not "paternalistic" suggests that AGK do not want to treat people impacted by the mine as well as their predecessor mining corporations did. AGK also urged CdC/Cafod to target all other stakeholders, not just AGK. Because governance is weak in this remote corner of DRC, AGK know they have a responsibility to prevent damage and augment benefits to the people impacted by AGK's operations. By means of sensitization of AGK, systematic meetings, agreement of meeting minutes, press, publicity etc etc, CdC should strengthen their links with AGK.

**4.3 Political Representation:** Try to meet and engage as an ally Anselme Enerunga, Minister of the Environment, Kinshasa. CdC should engage their members of parliament in their relationships and negotiations with AGK and the Government. As Mongbwalu is by far the most important risk and opportunity for all Ituri Province and will become the biggest gold mine in the world, and if current MPs are unresponsive, CDC should consider putting forward their members in the next appropriate elections.

**4.4 Training Resources:** From now on CdC should retain copies of all course notes, manuals, handbooks, handouts, power point presentations, ESIA's and other reports and relevant literature. These should be mainly in electronic form readily accessible by CDC and all potentially impacted stakeholders, backed up by a small Training Resource Center or library with reading machines, diskettes etc. IAIA's "EIA Training Course Data Base" is a must to jump start training materials acquisition (info@iaia.org). UNEP's "Training Resource Manual for Environmental Impact Assessment" (2nd Edition, available in French), including Transparencies and Case Studies prepared by the United Nations Environment Program: 600 p. a must for all in EIA training. The present report has been specifically designed as a useful entree to the scientific literature on ESIA and the mining sector. Most of the "Literature Cited" should be obtained by the Training Resource Center. The private sector should deposit electronic copies of all their reports and other documents in CdC's Training Resource Center as a matter of policy required by all mining permits. This resource training center will need the periodic services of a librarian or bibliographer with computer skills to codify all materials and make them readily available as CD-ROMs.

**4.5 Paper Trail:** CdC should compile a "paper trail" from now on, documenting all their contacts, conversations and meetings with AGK. For example, the 22 May 2009 Tripartite

Workshop in Bunia between CdC, Cafod and AGK should draft minutes and get them approved by AGK promptly (or AGK should draft and get then cleared by CdC) so they start to create a living, permanent record fostering a true partnership with the major stakeholders.

**4.6 Training of CdC Members:** CdC should pressure AGK, government, CAFOD and others to provide CdC with ESIA and other training both in-country and overseas (see recommendations to CAFOD). Approached well, UNEP may provide such training free.

**4.7 Revamp CdC's Website:** Such joint documents should be in the public domain on CdCs website for all stakeholders to read. This is especially important in recording promises made by AGK to CdC such as the date by which something will be created, rectified, built, cleaned up or signed etc.

## Conclusion

This report provides readers with much information on how the “Social and Environmental Impact Assessment” of the Mongbwalu gold mine should work. This should enable CdC, the communities, and the potentially impacted people to follow and understand the ESIA process over the next several critical years of study. To that extent, this report supports potentially impacted people, CdC, the communities, and even AGK in explaining the complicated and lengthy process of the upcoming ESIA. After reading this report, these entities now know what to expect from the ESIA process, how to ensure it prevents impacts to the fullest extent possible, and how to ensure optimal compensation for any unavoidable impacts.

In addition, this report outlines the main types of impacts that are likely to arise in the types of gold mines now being proposed at Mongbwalu. Technical terms, such as involuntary resettlement, cyanide, acid mine drainage, open-cast *versus* underground tunnel-mining, Indigenous People and biodiversity should have become familiar to readers by now. This report should become a useful resource for all those concerned to prevent, reduce, mitigate or compensate the social and environmental impacts of Mongbwalu. This includes AGK, CdC, the government, the ESIA firm hired by AGK to undertake the ESIA, and especially the potentially impacted people.

The bad news is that this remains a very high risk project. The fact that it is in a major conflict zone, usually avoided as paces to open new mines. Issues of Pygmies, displacement of humans, pressures on thousands of artisanal families, biodiversity and cyanide risks will repel those shareholders concerned with such severe social and environmental risks.

The good news is that AGK is not hostile to social and environmental issues and has, in a modest way, actually begun some social and environmental precautions. AGK has hired the NGO ‘PACT’ and has reasonable relations with CdC and the communities. Much hinges on whether a conscientious ESIA firm is hired to do a thorough, high quality job. Or if a Greenwash ESIA firm does a shoddy job in order for AGK to tick the box that they have fulfilled the requirement for an ESIA.

Even at the very early stage (exploration is not yet complete and construction has not started) there are several exceptionally influential measures that AGK could take in order vastly to reduce impacts. First, to the extent that AGK need not use cyanide, they should not. Second, to the extent AGK has flexibility in using open cast mining or underground tunneling, then AGK could reduce impacts by allowing no open cast mines in populated areas. Third, AGK could site all their mines in deforested areas, and strictly prevent removal of any more forest, hence preventing impacts on Pygmies and biodiversity. Fourth and finally, the single most important measure for AGK to reduce risks substantially is to hire an experienced international ESIA team, and ensure it does the most reliable job possible. CdC and CAFOD are there to help AGK.

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## References and Sources of Further Information

Basegere, Jean-Paul. 2008. Rapport d'enquete etude d'impacts environnementaux de l'exploitation artisanal de l'or en Ituri. Bunia, Organization Concertee des ecologists et amis de la nature antenne de L'Ituri OCEAN: 38 p.

Bernstein, P. L. 2003. *The Power of Gold: The History of an Obsession*. John Wiley & Sons, NY. 304 p.

Bindu, Kihangi. 2006. The right to environment in Article 54 of the transitional constitution of the Democratic Republic of Congo of 2003: a comparative analysis between the Democratic Republic of Congo and the Republic of South Africa. Thesis (LL.M.) University of South Africa.

Central African Regional Program for the Environment. 2005. The forests of the Congo Basin: a preliminary assessment. [S.l.]: CARPE.

Central African Regional Program for the Environment, and Biodiversity Support Program. 2001. Congo Basin information series taking action to manage and conserve forest resources in the Congo Basin. Washington, DC: Biodiversity Support Program. <http://www.bsponline.org/bsp/publications/africa/127/congo%5Ftoc.html>.

Crawford, Alec. 2008. Hope and change are far from reality for Congolese and a threatened environment. Winnipeg, International Institute for Sustainable Development. [eplac-bac.gc.ca/100/200/300/iisd/commentary/2008/com\\_hope\\_change.pdf](http://eplac-bac.gc.ca/100/200/300/iisd/commentary/2008/com_hope_change.pdf).

Congo (Democratic Republic). Mine Law of 2002. Kinshasa.

Congo (Democratic Republic), and United Nations Environment Programme. 2005. Strategy and action plan for the survival of the great apes in the Democratic Republic of the Congo. United Nations Environment Programme, Great Apes Survival Project, 65 p.

Csete, Joanne & Juliane Kippenberg. 2002. The war within the war: sexual violence against women and girls in Eastern Congo. New York: Human Rights Watch 114 p. <http://www.hrw.org/reports/2002/drc/>.

Ensler, E. 2008. [Eastern Congo] "The Vagina Monologues," New York, NY, Villard 202 p.

Goodland, Robert. 2008. WRI Informative Memo for Access Law & Practice: "Environmental and Social Assessment". Washington, DC: World Resources Institute 56 p.

Goodland, Robert. 2007. India: The Utkal Bauxite Mining Project: Human Rights and environmental impacts. [www.business-humanrights.org/Documents](http://www.business-humanrights.org/Documents): 118 p.



Human Rights Watch: World Report 1999. The Democratic Republic of Congo. [www.hrw.org /world report99 /africa/drc.html](http://www.hrw.org/world-report/1999/africa/drc.html).

Human Rights Watch: Democratic Republic of the Congo: What Kabila is Hiding: Civilian Killings and Impunity in Congo. <http://www.hrw.org/reports97/congo/index.htm>.

Human Rights Watch: Democratic Republic of Congo: Casualties of War: Civilians, Rule of Law, and Democratic Freedoms. <http://www.hrw.org/reports/1999/congo/>.

Human Rights Watch. 2001. Democratic Republic of the Congo: Reluctant Recruits: children and adults forcibly recruited for military service in North Kivu. New York, NY., Human Rights Watch.

Human Rights Watch. 2001. Uganda in Eastern Democratic Republic of the Congo (DRC): Fueling Political and Ethnic Strife. <http://www.hrw.org/reports/2001/drc/DRC0301.pdf>.

Human Rights Watch, 2003. Ituri: 'Covered in Blood': Ethnically Targeted Violence in North-eastern DRC", A Short Report. Human Rights Watch (Organization). 2003. Ituri "Covered in blood : ethnically targeted violence in Northeastern DR Congo. New York, N.Y.: Human Rights Watch. [hrw.org/reports/2003/ituri0703/DRC0703.pdf](http://www.hrw.org/reports/2003/ituri0703/DRC0703.pdf).

HRW, 2000. Democratic Republic of Congo: eastern Congo ravaged: killing civilians and silencing protest. New York, Human Rights Watch 12 (3).

Human Rights Watch, 2001. Séminaire d'experts sur la mise en oeuvre du statut de Rome instituant la Cour pénale internationale : acte final, Kinshasa, 05-08 décembre 2001. Kinshasa: Ministère de la Justice : Human Rights Watch, 5 leaves.

Human Rights Watch, 2001. Uganda in Eastern DRC: Fuelling Political and Ethnic Strife. A Short Report. New York, NY.

Human Rights Watch, 2002. U.N. Action Needed Now. A Briefing Paper.

Human Rights Watch, 2006. Democratic Republic of Congo: war crimes in Kisangani: The response of Rwandan-backed rebels to the May 2002 mutiny. Publications 14(6A). New York: Human Rights Watch.

Human Rights Watch, 2005. The curse of gold, Democratic Republic of Congo. New York, NY., Human Rights Watch, 159 p.

Human Rights Watch, 2009. The Christmas massacres: LRA attacks on civilians in northern Congo. New York, NY: Human Rights Watch. [www.hrw.org/en/reports/ 2009/02/16/ christmas-massacres-0](http://www.hrw.org/en/reports/2009/02/16/christmas-massacres-0).

International Council on Mining & Metals, World Bank, and Energy Sector Management Assistance Programme. 2005. Community Development Toolkit. Washington, DC: World Bank.

International Finance Corporation (IFC). 2007. Stakeholder Engagement: A Good Practice Handbook for Companies. Doing Business in Emerging Markets. Washington, DC: IFC.

Kippenberg, Juliane & Alison DesForges. 2005. Democratic republic of Congo: seeking justice: the prosecution of sexual violence in the Congo war. New York, NY. Human Rights Watch. Sub-Saharan Africa 17(1).

Longman, Timothy Paul, Alison Liebhafsky Des Forges, Peter Nanyenya-Takirambudde, and C. Choquet. 1997. Zaire: attacked by all sides: civilians and the war in eastern Zaire. New York, NY: Human Rights Watch/Africa.

Panos, 1996. The Lure of Gold: How Golden is the Future? Panos Media Briefing No.19: 26 p.

- Porter, Elisabeth J. 2002. Final Report of the Judicial Commission of Inquiry into Allegations into Illegal Exploitation of Natural Resources and Other Forms of Wealth in the Democratic Republic of Congo.
- Porter, Elisabeth J. 2005. *Researching conflict in Africa: insights and experiences*. Tokyo: United Nations University Press 170 p.
- Prendergast, John J. 2009. "Enough Project:" Sexual violence in eastern Congo and Sudan.
- Roecks, Alan L. 2006. Life in a failed state (D.R. Congo). Personal experience monograph. Carlisle Barracks, PA: U.S. Army War College.
- Schrank, Delphine. 2009. Under the weight of Congo's civil war, an ecosystem collapses. The Atlantic Monthly. 19.
- SRK, 2009. Environmental and social & adjustment plan on Mongbwalu's tailings retreatment. No: 393291:121++p.
- Stauss, Karen. 2005. Democratic Republic of Congo: civilians attacked in North Kivu. New York, NY: Human Rights Watch.
- UNICEF, 2009. Hundreds of thousands of girls have been raped in the last decade in the two eastern provinces of North Kivu and South Kivu.
- The U.N. Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of Congo, April 12, 2001 (S/2001/357), May 22, 2002 (S/2002/565), October 16, 2002 (S/2002/1146), October 23, 2003 (S/2003/1027) plus other addendums.
- United Nations Security Council, 2004. Special Report on the Events in Ituri. (July 16): 5p.
- Van Woudenberg, Anneke. 2008. "We will crush you:" The restriction of political space in the Democratic Republic of Congo. New York, NY: Human Rights Watch.
- Woodside, Duncan. 2006. Interview: Anselme Enerunga, Minister of the Environment, Democratic Republic of Congo. Jane's Intelligence Review. 18 (10): 54.
- World Bank, 2008. Democratic Republic of Congo: Growth with governance in the mineral sector. Washington DC., World Bank, Oil, Gas and Mining Report No. 43402: 150 p.

## **Annex 1: Methodology of this Report**

This report was prepared in four stages. First was a detailed c.two-week (aggregate) search of the literature from the internet and libraries, including AGK's website. This resulted in 600 pages of literature references and abstracts. Second came an on-site field inspection of the Bunia-Mongbwelu region during another two week period, from 17 thru 22 May 2009. All available sources of information were used. CdC was the main source, followed by AGK officials. In addition, as many people as possible were interviewed in the field, in Bunia and Mongbwelu, especially in Saio and Lodjo, the two sites identified by AGK as the most promising for gold mining. Much listening and probing was carried out, combined with personal observation on the ground. This was filtered through my experience of three decades of similar studies worldwide, especially the learning experience of a three year stint (2001-2004) with the independent Extractive Industry Review of the World Bank Group's oil gas and mining portfolio. This raised

familiarity with similar problems. Then came the drafting stage. Here the facts gleaned from the field survey were integrated with the literature review, and this reconnaissance-level report slowly took shape. Many aspects were checked or corroborated by e-mail with colleagues with specialist experience. Fourth and finally, the draft report was kindly reviewed by CAFOD's personnel and professional colleagues.

SRK's E & S Adjustment plan on tailings retreatment Jan '09 No393291;121++p. Will create 60 jobs initially; then 160 jobs for local miners unskilled, (only 20 of whom are skilled), p 64: displacement may be necessary, but doesn't say if displacement will exceed jobs created, Pygmy croplands to be expropriated (p 65), avoidance of paternalism,. If displacement is equal to or exceeds jobs created, this little questionable project should not go head. Will use 90mcu water/day. No chemical extraction will be used (p12), and no chemical will be used in the mining process (p14), but p 16 lists HCl,NaOCl,Na2S2O5 and NaOH for the chlorine leach units!]]]]]

## **Annex 2: Summary of the ESIA Process**

This summary represents my recommendations. It is based on accepted international best practice. It follows (a) UNEP's widely accepted Manual of Environmental Assessment, (b) the ESA policy of the World Bank, and (c) the standards of the International Association of Impact Assessment (IAIA). AGK's firm of environmental and social assessment will produce an ESIA to meet whatever standards AGK lays down. AGK will select a suite of standards from the long list included in this report. If AGK wants to follow general industry best practice, then they will follow these recommendations. If AGK wants to meet the standards of UNEP, IAIA and the World Bank, then they will instruct their ESIA firm to follow these recommendations. The ESIA eventually becomes an agreed-on document which guides prevention and reduction of impacts during the construction and operation phases of the mine. Thus, the ESIA should be completed and agreed upon before construction begins. The ICC closely follows the production of the ESIA volume.

### **1. Selection of the Panel of Social and environmental Experts (PoE).**

As soon as AGK receives government permission to go ahead with Mongbwalu gold mine, they will start the selection process for the ESIA firm and the independent PoE. Ideally, the PoE should be selected first so it can help AGK with the selection of the ESIA firm. The PoE is selected by AGK with advice and 'no objection' from CdC and civil society. Usually, one social scientist and one environmental scientist, with a generalist leader (see PoE specifications below). PoE's first task is to help AGK adopt a suite of prudent and reliable social and environmental norms, codes, policies and standards (See list in Box \*\*). PoE's second task is to help AGK to select the best ESIA firm. The third task is to assist the ESIA firm in the "Scoping" Phase. In addition, the PoE inspects the site and checks ESIA progress once or twice a year, depending on how well or badly the ESIA process is going, for the life of the project, until decommissioning is completed satisfactorily.

### **2. Selection of the ESIA Firm:**

This is done by AGK, supported with CdC and ideally with the Panel of Experts. The PoE helps ensure that the best and most experienced firm of ESIA preparers is hired.

### **3. Scoping:**

This important phase is done by the ESIA firm, in conjunction with AGK, CdC and the Panel of Experts. The scoping phase normally is brief, often a month or so. The result of Scoping is the design of the whole c.24 month ESIA process; equivalent to the plan of work, or detailed Terms of Reference (ToR) of the ESIA. Scoping agrees on ESIA contents. This must be fully discussed by potentially impacted stakeholders, in draft, before ESIA can begin. This is a formal stage of meaningful participation and Community Engagement. Scoping agrees on priorities for the ESIA: Emphasizes or ranks the important issues.

For example, Involuntary Displacement or Resettlement, Biodiversity, Worker Safety, the balance between open cast and underground mining, the priority of alternatives to cyanide, Ethnic minorities, Storage of toxic chemicals especially wastes (e.g., cyanide management). Following agreement on the priority issues, then agrees on disciplines needed for ESIA team: eg. Malaria specialist? Cyanide specialist? Tailings lagoon designer? Scoping agrees to de-emphasize the least important topics eg. Induced Seismicity. Note: The Grievance Mechanism must function well by the stage of Scoping.

### **4. Compilation of the ESIA Itself**

The ESIA is compiled by the ESIA firm in a lengthy process that often exceeds a couple of years. ESIA begins on the same day that the Feasibility Study begins and takes the same length of time as the Feasibility. Both Feasibility and ESIA take the same length of time. The ESIA team interacts closely with the Feasibility team, normally working cooperatively, and seeks to design out some impacts by minor design changes very early on. AGK, CdC and civil society follow the ESIA process as closely as they want. They receive periodic progress reports (e.g., monthly) and can intervene at any stage in case a course adjustment or fine tuning is needed. The PoE checks the progress of the ESIA a couple of times a year in close cooperation between the ESIA firm, AGK and CdC.

The ESIA firm compiles baseline data against which post-project changes can be assessed. The ESIA does a thorough “Analysis of Alternatives” to ensure the lowest impact design is selected. Then the ESIA completes all priority issue chapters as required by the agreed on Scoping study. Then all the findings, predictions, assessments and risks are synthesized. Then the important Environmental and Social Action Plan (ESIAP) is drafted. The ESIAP specifies what will be done during construction to prevent, mitigate, minimize, and compensate for impacts. Especially clarified aspects include: Who will implement the actions specified in the ESIAP. When will ESIA components be completed or implemented? (i.e., the schedule). The budget for ESIAP implementation is presented in detail.

### **5. Specifics of the Training Programs**

Part of the Impact-Compensation Contract, *vide infra*, is the provision of training and jobs by the proponent of the mine, namely AGK. In addition, AGK want to maximize the creation of local jobs as a matter of corporate policy. Therefore, AGK will want to discuss job needs with CdC, the Forum, civil society and with the potentially impacted people. Eventually, AGK should specify (a) the number, duration and type of jobs. (b) The type of training that will be necessary in order to maximize jobs going to local people. (c) The ratio of procurement for AGK mine-staff to be local (e.g., locally procured chickens vs frozen imported chickens). (d) The balance between Local and Non-local (outside) jobs. The training and job specification is often a part of the ESIA, normally included in the Environmental Action Plan as it consists of measures to compensate for the predicted impacts.

## **6. The Timing of the ESIA**

1. ESIA process begins and ends at the same time as the (pre-)feasibility study.
2. ESIA lasts as long as the (pre-)feasibility, which varies but may often be longer than two years for a mine as big as this one.
3. The Scoping document, and the Draft ESIA must be fully discussed with all stakeholders, especially the environmental and social action plan (ESIAP)
4. When agreed, the environmental and social action plan (+ schedule, budget etc...) is converted into a legal document, which is justiciable, called the Impact-Compensation Contract (ICC). This legal contract can be the basis of legal court cases if the Grievance Mechanism fails to resolve problems.

## **7. The Impact-Compensation Contract**

1. The environmental and social action plan (ESIAP) as one of the last chapters of the ESIA specifies all the preventive, mitigatory and minimization measures to be included in the project.
2. The residue of unmitigable impacts are compensated for by negotiation and agreement on the timing, nature, and amount of compensation. This is a sort of Benefits allocation agreement (=distribution of income, royalties, rents, benefits, compensations etc)
3. The ICC should include incentives and penalties for implementation, such as Performance bonds, commercial insurance and escrow accounts. Such bonds and insurance ensure that the ESIAP is implemented fully and on time. Escrow Accounts contain money ready to be used to rectify any damages immediately (e.g., emergency restoration of a ruptured or leaking toxic tailings lagoon).
4. Conclusion of the Impact Compensation Contract: If stakeholders + CdC sign the ICC, then FPIC has been achieved. FPIC means Free, Prior, and Informed, Consent. This means construction of the Mongbwelu Gold Mine can begin. During construction, all the provisions of the ESIAP are implemented. If anything goes wrong, if new unforeseen issues arise, or if any

component is not satisfactory, the Grievance Mechanism is in place ready to be used as soon as needed.

This is the end of the ESIA summary.

## **Annex 3:**

# **The Process of Environmental and Social Assessment**

Note: This annex expands on the brief summary above about ESIA. It is taken mainly from the World Bank's policy on Environmental Assessment, and from UNEP's EA Manual. The full version is at: [www.wri.Goodland.Environmental Assessment](http://www.wri.Goodland.Environmental%20Assessment).

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## **1. Introduction**

This note outlines what the assessment of social and environmental impacts (ESIA) entails, how to make it effective, and what its limitations are. Standard practice of ESIA as applied to a conventional development project is recapped. The deficiencies of "Analysis of Alternatives" are then noted, together with suggestions to remedy such weaknesses. The success of any ESIA is the extent to which precautions and mitigations are actually implemented as set out in the ESIA's Implementation or Mitigation Plan, specially how to foster its effective implementation during construction and operation of the project. The note ends with a discussion of cutting edge ESIA issues. First, how Impact-Compensation Contracts (ICA) foster implementation. Second, how the consent of affected people should be sought.

## 1.2 Definition of Environmental and Social Assessment

Traditional ESIA focus on capital-intensive infrastructure projects, such as rehabilitation or slum upgrading. National ministries of environment are still new and weak relative to ministries of agriculture or of energy or of transport. Environmental concerns usually addressed with inter-agency coordination. For example, if the energy ministry is building or permitting a dam, the health ministry needs to integrate anti-malarial measures. The ESIA is basically similar to whoever is the proponent, whether governments, public/private partners, or the private sector.

The ESIA first predicts the major potential impacts of a proposed project on people and their environment, and second devises ways to prevent or mitigate such impacts. For example, digging irrigation ditches often leads to mosquito breeding which spreads malaria. Clearing a patch of forest for agriculture may reduce biodiversity. The most important part of the ESIA is the Environmental and Social Action Plan which designs measures to prevent or mitigate the most severe impacts. In the above two examples, mosquito larvae-eating fish are introduced into the ditches and people are protected by public health campaigns including screens, treated bed nets and chemotherapy. Loss of biodiversity can be compensated for by offsets, conservation of a similar tract of forest with financing in perpetuity. Through the years, ESIA has increasingly managed to predict the more severe risks. Best practice ESIA now has little problem in identifying the major risks. Designing preventive measures to reduce the risks identified by the ESIA also is straightforward, but implementing such measures is often the weakest link in the ESIA process. Thus, ESIA minimizes negative impacts, ESIA manages the negative, and seems

Since the 1969 NEPA, ESIA has a newer element, especially participation of affected people in the ESIA process, winning their consent to the project, supported by systematic grievance procedures.

## 2. Standard ESIA Practice

ESIA is tightly linked to what is called the Project Cycle from project identification, through (pre-) feasibility or project preparation, to construction, operation and decommissioning.

### Standard Contents of Environmental and Social Assessment Reports

**Executive summary.** Concisely discusses significant findings and recommended actions. The summary has to be a faithful summary of the main text. Often the only part of the ESIA that many people will read. Often available as a separate document. Should be available in all appropriate languages.

**Policy, legal, and administrative framework.** Discusses the policy, legal, and administrative framework financiers and governments. Identifies relevant international environmental agreements. Better as an Annex.

**Project description.** Usually summarized from the Feasibility Report. Concisely describes the proposed project and its geographic, ecological, social, and temporal context, including any offsite investments that may be required (e.g., pipelines, access roads, power plants, power corridors, water supply, housing, and quarries, raw material and product storage facilities, resettlement sites). Indicates the need for any resettlement plan or indigenous peoples development plan. Normally includes watershed and air shed maps showing the project site and

the project's area of influence. If the project description is readily available in the Feasibility Report, this section can be brief as it repeats the Feasibility report.

**Baseline data.** Normally a weak section of the ESIA. Assesses the dimensions of the study area and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. Also takes into account current and proposed development activities within the project area but not directly connected to the project. Data should be relevant to decisions about project location, design, operation, or mitigating measures. Too often, this section lists detailed climate data, geological info, and the species of plants and animals found in the project area allegedly as a base-line against which future project-induced changes can be detected. In fact, such lists are often of modest utility. Baseline data is in essence detailed description of the project area; better annexed.

**Identification of Social and Environmental impacts.** This is the first substantive element of the ESIA. It builds on and extends the ESIA Scoping study. Predicts and assesses the project's likely positive and negative impacts on the environment and on communities and settlements. Specifies which topics do not require further attention, together with the reasons. This section is usefully ranked in rough order of

**Analysis of alternatives:** A weak section that often fails to add much value to the ESIA. A of A is supposed to compare better or much lower impact alternatives to the proposed project. In fact, the A of A almost never puts forward a lower impact alternative in a different sector. For example, in a highway ESIA, the A of A never recommends a rail. In a coal electricity project, the A of A never recommends renewable project. In that case, the improvements are better placed in the Mitigation Plan. Sometimes includes the "without project" situation. States the basis for selecting the particular project design proposed.

**Environmental and Social Action Plan (ESAP).** Sometimes called Environmental and Social Management Plan. This is normally the most substantive section of the ESIA. Identifies mitigation measures for the impacts identified in the Section on social and environmental impacts. Any residual negative impacts that cannot be mitigated also are included together with compensatory measures. Explores opportunities for environmental enhancement. Covers mitigation measures, monitoring, and institutional strengthening, budgets, schedules, responsibilities, and disclosure and grievance mechanisms.

## **2.1 ESIA Screening**

As soon as the project is identified, the ESIA process begins with screening, which is a type of triage to tailor the level of ESIA commensurate with the potential impacts. Screening depends on the likely significance of the impacts, and is done according to the severity of the potential impacts. The determination of significance of impacts is based on prior experience with a project of the proposed type. Many governments and other entities have issued lists of significance of impacts or illustrative examples of which projects should be assigned to which Environmental Assessment category. Significance depends partly on magnitude, severity, irreversibility, and the number of people who may be affected. The views of potentially impacted stakeholders are taken into account, as are the professional opinions of the environmental authorities. A total project cost of about US\$10 million is the increasingly accepted international standard threshold for ESIA



Category A, now widespread, adopted by the more than 50 international private banks adhering to the Equator Principles for project finance. Brazil's Bank Itaú sets the threshold lower at \$3 million. Basically all major infrastructure projects rate an ESIA Category "A" designation. Screening assigns a category to the EA, usually A, B or C. In general, A means few, minor or no impacts. Some agencies add a fourth category "D" for program loans to financial intermediaries. Some governments simplify this down to two categories: positive needs an ESIA; negative doesn't need an ESIA. Screening ensures that progressively more rigorous levels of environmental scrutiny are accorded to projects with more severe impacts. As screening is the first step in the ESIA process, it is based on prior experience of projects in the category of the proposed project. For example, experience shows that in big infrastructure projects causing displacement of human, and conversion of forests or habitat are normally Category A. A project to build a small rural schoolhouse would be Category C.

There are many guidelines on how best to screen such projects. Each agency or Ministry uses slightly different criteria to distinguish "A" Category from "B". The easiest to use are "Illustrative Lists" based on experience. There is much discussion distinguishing major projects or impacts from medium or minor impacts. Projects involving Indigenous Peoples (IPs), or those which may displace non-indigenous communities are Category A.

All big dams, reservoirs, highways, mines, deforestation, power plants, urban renewal, impacts on "No-Go Zones" are *a priori* Category A. If it is claimed that the current project being screened is too small or the numbers of people to be displaced is too small or the area of stakeholders to foster agreement before screening is finalized. This paper deals almost entirely with ESIA Category 'A' projects.

If the project is screened as Category A, then a team of ESIA practitioners, experienced in that sector and the area or ecosystem of the proposed project, is engaged. The ESIA team is expected to be as independent as possible from the project proponent who is paying for their services. There are strong pressures for the ESIA team not to highlight major impacts or to downplay them, and to not to be as thorough as professionally necessary in order to keep the ESIA process as short and low cost as possible. This is where "Greenwash" is most frequent. ESIA consultants make their living by undertaking ESIAs for proponents. ESIA teams will get fewer consultancies from proponents by being hard-liners and thorough, than if they are malleable and are willing to gloss over some impact and cut some corners.

As it is not easy to muster an independent ESIA team, there has to be a series of checks- and-balances in place to foster independence and reduce bias. The first is in the selection of the ESIA team. This should be based on the track record for independence that they achieved in previous projects. Second are the views of the ministry's E&S Unit. Third are the views of the financier's E&S Unit. Fourth are the views of the Panel of Experts (PoE) on the independence of the potential ESIA team. Fifth is the grievance mechanism

The ESIA team's first job is to corroborate the screening category. Once the screening category is confirmed as an A, then ESIA scoping begins.

### **ESIA Scoping**

Scoping is a process designed to promote consensus on which key issues should be tackled by

the ESIA. A rapid environmental reconnaissance is often done in order to find out what the key issues are likely to be. The reconnaissance may take a week or so of work by one or two experienced professional generalists. Scoping and the reconnaissance are often the first opportunities for public participation (q.v.) in the project itself. Reconnaissance should start obtaining the views of potentially impacted stakeholders in the vicinity of the project.

Best practice coping of the ESIA culminates with a list of potential impacts, issues and issues in an order of significance improves the ESIA process by assigning most attention to significant topics and less attention to less important topics. Scoping ends with the Terms of Reference which designs the ESIA process for the next couple of years or so. Scoping determines what disciplines will be needed for the ESIA and agrees on what studies the ESIA will undertake. For example, if public health may be risked by an influx of malaria or HIV/AIDS, then public health specialists will be needed for the ESIA team and the Health Impact Assessment will become a key part of the ESIA. If impacts on communities or even resettlement seem likely, then social scientists will be required on the ESIA team. The ESIA team is hired with adequate representation from the disciplines needed.

Scoping ends with agreement on the Terms of Reference (ToRs) between (a) the project sponsor (especially their in-house E&S Unit), (b) the national or provincial environmental authorities, (c) the project financiers, (d) the potentially impacted stakeholders, and (e) the ESIA team. This means there is agreement on how the ESIA will be conducted over the next 24 months or so. In many developing countries, this time period might be considered somewhat on the lengthy side. Many EIAs are completed within 12-18 months and as a result they tend to be sloppy. It is impossible for an ESIA to be adequately reliable without all seasons being represented. And as seasons fluctuate from year to year, as does biological behavior, one year of seasons could inject an element of risk into the ESIA. It should tacitly be understood that agreement on the ToRs means that agreement will be expected on the outcome of the ESIA process when it is concluded, assuming that the ToRs have been fulfilled.

## **The Environmental and Social Management Plan**

A project's environmental management plan (EMP), sometimes known as an "action plan" is normally one of the last chapters of the ESIA, is the most important element of the whole ESIA. The EMP consists of the set of prevention, mitigation, compensation, monitoring, and institutional measures to be implemented during construction, operation and decommissioning to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. Remediation of existing environmental problems may be more important than mitigation of predicted future impacts; in such cases the EMP designs cost-effective measures to remedy such problems (e.g., restoration of abandoned mines or tailings dumps). The EMP includes the actions needed to implement the mitigating measures. EMPs are essential elements of Category A ESIA's.

ESIA's for Category B projects may consist of an EMP only. The mitigation noted in the EMP must be included as binding conditions of loan covenants, and become the basis of the IBA. To prepare the EMP, the proponent and its ESIA team: (a) design the set of preventive or mitigating measures for the potentially adverse impacts; (b) determine requirements for ensuring that the mitigating measures are made effectively and in a timely manner; and (c) describe the means for meeting those requirements. The EMP includes mitigation, monitoring, capacity strengthening,

implementation schedule and integration with the overall project as outlined below.

**Implementation Schedule and Cost Estimates:** For all three aspects (mitigation, monitoring, and capacity strengthening), the EMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the EMP. These figures are also integrated into the project cost tables.

**Integration of the EMP with Project:** When the project feasibility and ESIA are ready, the proponent's decision to proceed with a project is predicated in part on the expectation that the EMP will be implemented effectively. Consequently, the EMP has to be specific in its description of the individual mitigation, monitoring and institutional measures, and it must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the EMP within the project so that the plan will receive funding and supervision along with the other components.

## **Mitigation**

The EMP identifies and designs measures to reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient. Specifically, the EMP: (a) Identifies and summarizes all anticipated significant adverse environmental impacts (including those involving Indigenous Peoples or involuntary resettlement); (b) Designs or describes the technical details of each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with equipment descriptions and operating procedures. (c) Assesses any potential environmental impacts of these measures. (d) Provides linkage with any other mitigation plans (e.g., for involuntary resettlement, Indigenous Peoples, or cultural property) required for the project.

## **Monitoring**

Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the proponent and other stakeholders to evaluate the success of mitigation as part of project management, and allows corrective action to be taken when needed. The EMP establishes the legal mandate for each task and this is codified in the IBC. Therefore, the EMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the ESIA report and the mitigation measures described in the EMP.

Specifically, the monitoring section of the EMP provides: (a) Specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions. (b) Monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

## **Capacity Strengthening**

To support timely and effective implementation of the mitigating measures, the EMP draws on the EA's assessment of the existence, role, and capability of environmental units on site of the proponent and at the municipal and national levels. For ESIA Category A projects, those with significant environmental impacts, the implementing ministry (e.g., the agriculture ministry) and the project sponsor (e.g., an irrigation company) need in-house environmental units with adequate budget and professional staffing strong in expertise relevant to the project. The in-house E&S Unit of corporations are financed in the same way as all other units of the corporation, by itself. The government's regulatory agency (e.g., the Ministry of Agriculture) has its own E&S capacity that should be kept up to strength as needs change through the years. The E&S Units of the financiers are paid as all other units, by the financiers. The performance of the corporations E&S Units is assessed periodically by the Panel of Social and Environmental Experts (PoE) (see Annex \*\*) and strengthened as necessary.

Most of the in-house E&S professionals will be located at the project site. The EMP evaluates existing institutional capacity and provides strengthening including establishment, expansion or training of staff, to allow implementation of EMP. Specifically, the EMP provides a specific description of institutional arrangements—who is responsible for carrying out the monitoring measures (e.g., for construction, operation, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).

### **Public Participation and Disclosure**

For World Bank supported projects with potentially significant adverse impacts, public consultation and disclosure must occur at least three times. First, during the scoping process, marking the beginning of the ESIA process. Second, as soon as the draft ESIA becomes available. Third, after release of the final EIA, which must be at least 120 days before Board approval (the Pelosi Amendment).vii These three points of consultation and disclosure were major advances for 1989, but would be inadequate nowadays. As outlined below, participation of potentially affected stakeholders is a process that starts as soon as the project is identified, extends through design, construction and operation, and ends when decommissioning and restoration are complete.

Public participation in project design and the ESIA process differ greatly between sectors, type of project, and political practices in each country. Best practice is for the project sponsor's E&S Unit to see that all stakeholders are identified reliably as soon as the project has been identified. Stakeholders excluded can and should complain, which would suggest the proponent is not following Best Practice, in which case their social license would diminish.

It is not always obvious who all the stakeholders may be, so a systematic effort at stakeholder identification is necessary. This memo uses the term stakeholder to mean mainly potentially impacted people. The government entity regulating the project is an ex-officio stakeholder, as is the company or government agency building the project. Some stakeholders are clear, such as if a village has to be resettled to make way for a mining project. Other stakeholders, often advocates for impacted people or vulnerable groups, may be civil society organizations (CSOs) critical of the project. Other stakeholders are frequently overlooked, such as the forest dwellers, vulnerable ethnic minorities or Indigenous Peoples, who may use the project site sporadically or seasonally and who are often reclusive. Such societies in some countries have made it quite clear that they wish to be left totally alone and not contacted by the government, nor by project

sponsors. Indigenous Peoples merit special care in such cases. They are often so vulnerable that some governments decline permission for a project to go ahead if they are involved. Best practice is that Indigenous Peoples are best left alone, and the project should be re-sited elsewhere. This approach prevents serious problems later on.

Public participation begins with screening and scoping and continues during the ESIA process. Best practice is for the ESIA team or the E&S Unit to brief the potentially impacted stakeholders periodically on the ESIA or to invite them to accompany the ESIA process as it unfolds. Often people living in or near a project site may be hired to work on the project itself, with the caveat that the promise of employment in the project must never be used as a way of silencing community concerns. The key point is that stakeholders must be familiar with the ESIA process so that when the draft ESIA report is ready, the impacted people already are familiar with how it was produced. Giving a draft ESIA report to anyone unfamiliar with the ESIA process and expecting them to comment on it - or even to approve it -- is a recipe for disaster and raises grave risks.

The next big event in public participation is that the draft ESIA report is given to or made accessible to all stakeholders – potentially impacted people, government, financiers -- who are expected to approve it or not. A stakeholder may condition their approval on certain changes to the project, which need to be agreed to by project sponsors.

Assuming stakeholders or their representatives or leaders or advocates approve the ESIA, Good Practice is to extract the Mitigation Plan from the ESIA and convert it into an Impact-Benefit Agreement (IBA). This codifies into a single judicial contract all the mitigating measures, compensation, allocation of benefits, offsets, performance bonds, insurance, grievance mechanisms, redress and systems of penalties. Project sponsors and affected stakeholders then sign this legal document, which is then implemented.

In some countries, a government agency incorporates such agreements into the project approval decision. In others, the government agency merely takes public comments into account in formulating the project approval decisions and attaches conditions. The conditions flow either from the “contract” or from “legal statutory authority”. Either way, what needs to be stressed is

### **Box: Public Participation Leading to IBA and FPIC**

Stakeholder Identification; Invitation to Participate; ESIA Screening; ESIA Scoping; Accompanying the ESIA process; Commenting on the draft ESIA; and especially the EMP Integrating the EMP into the IBA; FPIC.

that stakeholder agreements and concerns are incorporated into a legally enforceable project approval.

If the potentially impacted stakeholders approve the ESIA and sign the IBA that constitutes free prior and informed consent (FPIC) [see below].

### **Vulnerable Ethnic Minorities**

Economic development is designed normally to benefit the dominant society of a country. However, when economic development occurs in or near territories occupied or used by vulnerable ethnic minorities, they are usually seriously harmed by the development. Soon after the realization by the dominant society and by designers of economic development that development damages ethnic minorities, special precautions were designed in the 1960s and 1970s to ensure that harm was prevented, and preferably that the ethnic minority benefited from the development. Such special precautions are sometimes similar to affirmative action. The struggle to achieve these goals is ongoing; development projects on or near ethnic minorities continues to damage their societies. This section briefly outlines what vulnerable ethnic minorities are and what special precautions are needed in order to prevent damage to them.

### **Indigenous Peoples**

The main criterion for being "Indigenous Peoples" are ethnic groups who self-identify themselves as being indigenous, or who are recognized as IPs by other groups. IPs are defined by the UN, ILO, World Bank and others as cultural or ethnic groups possessing a continuity or association with a given region (often called ancestral domain), and who formerly or currently inhabit the region either before its subsequent colonization or annexation; or alongside other cultural groups during the formation of a nation-state; or independently or largely isolated from the influence of the claimed governance by a nation-state. IPs normally possess linguistic, cultural and social characteristics, different in some degree from the surrounding populations and dominant culture of the nation-state. Most IPs nowadays has already at least been contacted by the dominant ethnic majority who know where they live and what they call themselves. Worldwide, anthropologists estimate there may still be as many as 100 uncontacted ethnic minorities.

In the Amazon forest region, possibly a couple of dozen distinct ethnic groups are thought to exist, but who have not yet been contacted. Some IPs have been contacted by the dominant national ethnic majority, but do not want to continue such contacts, so have retreated further away and are called ethnic groups who do not want more contact with the dominant society.

Related terms overlapping the definition of Indigenous Peoples include aborigines (e.g., in Australia), aboriginal peoples, native peoples, first peoples, first nations (e.g., in Canada), tribal People, American Indian in the US, Amerindian in Central and South America, and autochthonous.

In India, most IPs are called *Adivasis*, from the Devanagari script meaning aboriginal, *Atavika* (forest dwellers in Sanskrit), *Vanvasi* or *Girijan* the hill IPs are often grouped together in the category "Scheduled Castes and Tribes in the Constitution of India.

Pygmy, the ethnic minority who live in equatorial rain forests and average less than 150 cm in height. Some distinguish between African Negrillos, and Negritos, who live in Southeast Asia, New Guinea, and the Philippines. The name Pygmy is derogatory to many who prefer being called by their specific ethnic group.

Similarly with the Inuit, a group of culturally similar indigenous peoples inhabiting the Arctic regions of Alaska, Greenland, and Canada speaking the Inuit language which is classified under Eskimo-Aleut languages.

**Precautions for Vulnerable Ethnic Minorities:** In the case of indigenous and tribal peoples, the most comprehensive standards are set forth in the *Akwé:Kon Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessments Regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities*. These guidelines were adopted by consensus by the Conference of Parties to the Convention on Biological Diversity and were developed with considerable input by indigenous peoples.

### **Free Prior and Informed Consent**

FPIC is Best Practice in major projects and is required in an increasing number of instances. Financiers, legal experts and development agencies have ruled that participation cannot be deemed meaningful unless the stakeholders have the right to reject the project. If the right of rejection is absent, public participation becomes a hoax.

As FPIC was formally adopted on 13 September 2007 by the UN General Assembly in the Declaration on the Rights of Indigenous Peoples, FPIC has now become best practice. The World Commission on Dams (2000) and the Extractive Industry Review (2003) both extend FPIC and advocate making it a requirement. ILO and the InterAmerican Court of Human Rights support FPIC. IFC's exclusion list bans supporting the production or activities that impinge on the lands owned, or claimed under adjudication, by Indigenous Peoples, without full documented consent of such peoples. The rest of the World Bank Group changes consent to consultation, although without distinguishing between them. The World Bank Group now mandates FPIConsultation rather than the UN's FPIConsent. Consultation means obtaining views and opinions, but with no indication of what should be done with such views. Consent is much stronger. Consent means the potentially impacted stakeholders approve the project. This is not consensus in which everyone approves the project. Equality of information between proponent and impacted people about the proposed project has to be ensured before FPIC can be sought.

Some governments (e.g., Australia, Philippines) have enshrined FPIC into national legislation. WWF's Mine Certification and Evaluation Project is analyzing Best Practice and FPIC. Does one interpret the UN Declaration as excluding non-indigenous peoples? Can a proponent claim that FPIC is needed only when Indigenous People are involved? Extension of FPIC to non-Indigenous Peoples is a substantive issue on which there is little agreement. Indigenous Peoples have a "corporate" existence, whereas non-indigenous communities or villages don't necessarily have a "corporate" existence that allows FPIC to work. At the moment, the UN Declaration and other authorities cited for FPIC are related to Indigenous Peoples. And yet it is difficult to disagree that "meaningful consultation" must include the right to say "no" by non-indigenous impacted peoples too.

FPIC is part of public participation, especially the participation of potentially affected stakeholders in decisions about the proposed project that are likely to impact on their livelihoods. FPIC also is a process, not a once-off threshold. FPIC promotes equitable relationships between impacted stakeholders, the project sponsor, the financiers and governments, partly by

recognizing and respecting their rights to control their traditional territories or ancestral domains.

The “informed” part of FPIC means the stakeholders from whom FPIC is sought have to fully understand the implications of the project. It is not possible to understand a project by being presented with a huge technical draft of the ESIA. Only by accompanying the gestation of the project and ESIA can the stakeholders become familiar with the project. This means the stakeholders should be invited to periodic discussions on the project and on the design and execution of the ESIA throughout the (pre-) feasibility phase. Then, when the draft ESIA is ready, the stakeholders already will be fairly familiar with most of its contents.

**Caveat:** FPIC is not yet as clearly established as it will become. There is a flurry of activity to examine the implications of FPIC. For example, is consent by some or all stakeholders? Will FPIC suffice from the representative leaders of the community? Or must all members of the community consent? “Broad community support” (BCS) contains much of the gist of FPIC, but is less precise. BCS excludes the two keys or “prior” and “informed”. “Broad” also is vague. BCS’s ‘Community’ is fine for potentially impacted societies. Support is less clear than consent, but clearer than consultation as in FPIConsultation. In my view “broad community support” sounds good but is not as operational as FPIC is. Neither BDS nor FPIConsultation can replace FPIC for Indigenous peoples. Both are much weaker applied to non-indigenous communities. Rarely do projects claiming BCS document how they arrived at that conclusion. If BCS can be obtained by a couple of proponent officials briefly chatting with a few ill-informed villages off the record, with nothing in writing, then the concept should be dropped. The gray areas of FPIC are being actively addressed.

**FPIC and Non-Indigenous Peoples:** Shanta Martin (2007) puts it best: Non-indigenous community members also enjoy rights to which FPIC is central. Everyone has a right to development. Development entails the active, free and meaningful participation of all individuals in achieving and enjoying the benefits of development. The goal of human development is to establish an environment in which people’s capabilities can be enhanced, their range of choices expanded and, their human rights fulfilled. The sustainability of development is integrally connected with the ability of people to control their development objectives. In order to be able to have effective control of their own development, communities must understand the full consequences of projects, be properly consulted and given the opportunity to give or withhold their consent to projects that will affect them. Thus, FPIC is inherent to a rights-based approach to development.

In addition, the draft ESIA and all materials have to be written in languages and forms understandable by the stakeholders. Techno-scientific writing is not appropriate in such cases. Video, radio, TV, cartoons, posters, pamphlets, spoken presentations, maps, Primers all are preferable.

The conclusion is that FPIC should now be expected in all projects affecting Indigenous Peoples. FPIC is not yet agreed upon as being applicable to non-Indigenous Peoples. FPIC is a growing trend which should be supported with research, advocacy and concept development.

## **ICC (IBA)**

Impact-Compensation Contracts (ICC)<sup>xiv</sup> are not yet as common and standardized as FPIC and



SEA. ICCs are used more often in Canada and Australia. ICCs are a formalization and extension of what the proponent includes in standard ESIAs, in the sections called Management Plan, Mitigation Plan, Action Plan or Implementation Plan. These are a set of conditions set out in the ESIA document agreed to by proponent and impacted people to prevent, reduce, mitigate or compensate for impacts, together with a budget and schedule. The specifics of who is responsible for implementing or fulfilling each condition (and when) also is an integral part. Grievance mechanisms are normally included. Best practice is to sign an ICC as the final step to achieving FPIC.

ICCs can split communities because different members or classes in the community may seek different goals. For example, Sosa and Keenan (2001) note: At times these divisions correspond to differences within the community in terms of economic activities (for example, farmers may be more opposed to mining than truck drivers), age (because elder people may seek to preserve traditional culture whereas young people may want jobs at the mine), gender (because work opportunities at mines have traditionally been more available to men, whereas women tend to carry the impacts of mining more heavily).

### **Contents of Standard ICCs**

The ICC is a legal contract between proponents and impacted stakeholders. Normally the ICC has three main signatories: (a) the project proponent (and their financiers), (b) the potentially impacted stakeholders, and (c) the national regulatory agency. The national regulatory agency signs that it has examined the ICC and finds it meets all national requirements, and that it is fully recognized as a legal contract by government. The ICC should be vetted by government legal experts before signing, and formally notarized and lodged in the appropriate places. Government may want to guarantee the integrity of the ICC negotiations between the proponent and the impacted stakeholders, because international human rights norms are tantamount to a fiduciary responsibility of the governments in relation to development on Indigenous Peoples ancestral domains.

Government may encourage the proponent to concede benefits to the community. Government may allocate a portion of its own statutory royalty stream also for the benefit of the community. The two principal parties to the contract remain the impacted stakeholders and the project proponent. The government is present essentially as an observer as a final check that national legislation and international treaties are respected. In addition, the government's ministry of environment, social and health ministries, and the agency responsible for Indigenous Peoples livelihoods also should attend relevant parts of ICC negotiations.

The ICC contains first the Environmental Management Plan (*EMP: see above*) extracted and augmented from the ESIA. The EMP lists the main likely impacts together with actions to be implemented by the sponsor to prevent, mitigate, minimize or compensate for the impacts. The EMP is the action plan to guarantee that the surrounding people will not be harmed by the project, and if there are some uncontested minor harms, these are compensated for in manners acceptable to the stakeholders. The commercial aspects, such as protections, grievance mechanisms, environmental precautions both processes and substance, cultural/spiritual/religious/ historic site are also included. Performance bonds are included here as a means to foster conscientious implementation of the social and environmental precautions.

The second part of the ICC specifies the benefits that will flow from the project to the potentially impacted stakeholders (e.g., financial participation, royalties, profit sharing, rents, usage fees, interest) and employment, training and business arrangements. Health provisions and insurance, education, training, etc...

## **Independent Review**

**Governments, MDBs and best practice require Independent Review of major projects.** xv  
Independent review of a late draft ESIA compiled by an ESIA team working for the proponent is one of the mechanisms to foster adequate quality of the ESIA and especially of its environmental management plan. Best practice engages independent Third Party consultants (e.g., Global Witness).

The reason independent reviews are needed is to reduce any bias from conflict of interest between the ESIA team and their paymasters. The pressures on even an independent ESIA team are tremendous. It is practically impossible for an ESIA team to say, we have assessed this project and advise you the proponent not to proceed, at least in its present design. The pressure on the ESIA team is to say that there are a number of mitigating measures that need to be added to the design of the project before going ahead.

Shoddy and unprofessional ESIA teams may be very popular with proponents not concerned with social and environmental impacts. This is very short-sighted and usually leads to major delays and cost over-runs when major impacts glossed over in the ESIA are subsequently revealed. The pressure to downplay problems is far greater than the pressures to be as frank as possible. To boost independence and to relieve the crushing asymmetry between the ESIA team and their paymasters, a number of checks-and- balances are essential called for. These same pressures also act even more severely on the proponent's in-house E&S Unit. In addition, the independent reviewers can clarify any differences between the in-house E&S Unit and the proponent. That is the reason the PoE needs to care more for their professional reputations and less for their next consultancy.

### **Box: Checks-and-Balances to Promote Frank ESIA's**

Public participation, Government's Environmental Ministry, Financiers' Environment and Social Unit, Civil Society, Proponents E&S Unit, PoE, ESIA Team's Professionalism, Independent ESIA review before permitting, Inspection Panel, Grievance Mechanism, Ombudsman mechanism, Mediation/Arbitration, Local Courts, National Courts.

## **Duties of the Social and Environmental Advisory Panel:**

Nowadays, most major projects, especially infrastructure and certainly any contentious or risky projects, the proponent, or government agency approving the project or the borrower should engage an advisory panel of independent, internationally recognized, environmental and social specialists. . In many countries independent review is ensured via a government agency panel of experts. The Panel serves the agency and is paid for by taxpayers' money – or a fee paid to government by the proponent/sponsor.

The purpose of such panels is to advise the project's in-house social and environmental unit and upper management on: (a) The set of international corporate standards or best practice that the borrower or proponent adopts in this project (b) Capacity strengthening for the project's in-house E&S Unit, training, dispute resolution, grievance mechanisms (b) Screening: assigning an ESIA category (c) Selection of an independent ESIA team (d) ESIA Scoping: Agreement on the ToRs for the whole ESIA process. Agrees on key issues and methods for preparing the EA (e) Recommendations and findings of the EA (f) Integration of the EMP into the ICC (g) Implementation of the ESIA's recommendations (h) Development of environmental management capacity in the implementing agency.

## **Terms of Reference for PoE**

The ToR needs to provide acknowledged experts the opportunity, resources, and independence to examine anything they deem necessary. The ToR should be a facilitation document to legitimize what the experts deem is necessary.

The ToR should routinely include all the issues that should be dealt with in any S, such as: Risk Assessment, Social Assessments, Poverty Assessments, Climate Change Assessments, Human Rights Assessments, Indigenous Peoples Assessments, and Health Impact Assessments. ToRs can include the tables of contents of Social Assessments/EA/Health Assessments, or annex them.

While it is desirable that the responsible project agency craft ToR for the Panel before each mission, it must be clearly established that as an independent Panel of Experts, it not only must be able to look into any issues deemed important by themselves or the sponsor, but need not justify such examination. Independence and capacity to look into any and all issues should be clearly stated in ToRs for such Panels.

## **Remedies**

If a project proponent fails to fulfill its agreements or conditions as set out in the EMP and ICC, then the government permits to proceed with the project become null and void, and penalties may ensue. In certain cases, the government may renew the permits if the sponsor successfully implements actions that fully comply with the original agreement. In an internationally financed project, if the environmental or social agreements are violated, the financier may cancel or suspend project finance until agreements are fully met, and any damages caused by breaking agreements are restituted to the full satisfaction of the aggrieved parties. In addition, non-compliance with social and environmental undertakings may trigger performance bonds and industrial insurance. Failure to meet agreed standards in resettlement of humans is especially important in this regard. Normally, the proponents' in-house Environmental and Social Unit is the first to call the attention of the proponent to any likely non-compliance.

Complaints may originate from impacted stakeholders or their advocates. Community enforcement is the first line of defense in redressing grievance and promoting compliance. Government agency involvement in approvals, enforcement, monitoring and compliance is the second line of defense. The Government may decide to call for tribunals, arbitration or mediation in specific cases. The third line is resort to the local and national court system. In addition to these lines of defense, the PoE, Ombudsman, Grievance procedure, Community Liaison Officer, Corporate social responsibility office, Inspection Panel, or independent third party performance

consultants also may point out impending non-compliance. This latter group often can act faster, as they are nearer the center of action. The latter group can resolve practically all non-compliance promptly. If the latter group fails to resolve the issue, resort to official government procedures and the court system suggests that the non-compliance or grievance is systemic and grave. The rule-of-thumb in ESIA work is to resolve issues as soon as possible and at the lowest possible level, bearing in mind that the more ponderous system remains available if resolution is not achieved.

Project proponents should provide prompt, effective and adequate reparation to those persons, entities and communities that have been adversely affected by failures to comply with UN norms (e.g., Global Compact), ESIA, EMP and ICC contracts, approval conditions or permits, and other standards by means of reparations, restitution, compensation and rehabilitation for any damage done or property taken. In connection with determining damages, in regard to criminal sanctions, and in all other respects, these Norms shall be applied by national courts and/or international tribunals, pursuant to national and international law.

## **Grievance Mechanism**

The goals of the grievance mechanism are first to obtain justice or seek redress and remedies for harms arising from the project; second, to foster accountability by the governments or companies who caused the harms; third to promote compliance with norms, standards, agreements and laws; fourth, to prevent similar harms in the future.

The grievance mechanism is set up by the proponent to be used by workers, their families, their advocates or other organizations, to raise concerns related to the project in the wide sense. The sponsor informs the workers of the grievance mechanism at the time of hiring, and ensures it is easily accessible to them. The mechanism involves an appropriate hierarchy of management such as the Community Liaison Officer, backed up by upper management as needed. Concerns are to be promptly addressed, using an understandable and transparent process that provides feedback to those concerned, without any retribution or retaliation. The mechanism should not impede access to other judicial or administrative remedies that might be available under law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements (after EBRD 2008). Access to justice through legally established mechanisms, such as local and national courts, the Ministry of Justice, remain the important back-up to the in-house procedures. The proponent expects the grievance mechanism to resolve all complaints, but where this is not possible, then access to the courts or other means of seeking justice is available.

The grievance mechanism is normally managed by the proponents' in-house E&S unit, which compiles monthly and annual reports together with corrective actions to reduce similar harms in the future. The PoE scrutinizes the grievance mechanism in order that it functions effectively, and may take up any difficult cases with top management.

## **Human Rights**

Even in the social impact assessment arena, human rights is relatively new. International Best Practice is for project proponents to adopt publicly a specific set of Human Rights standards at the outset. The proponent will need adequate Human Rights professional expertise in-house to

foster satisfactory following of the Human Rights standards. The fundamental dilemma is that the proponent seeks to reduce costs of community engagement and compensation as much as possible commensurate with preventing conflict. Although it is difficult to assess how much engagement and compensation is needed to prevent conflict, the rule of thumb should be that no force be used (e.g., no involuntary resettlement), that grievance mechanisms work effectively, that the ESIA team is as independent as possible, and that the compensation be based on fully informed processes in which government and civil society have roles.

**Human Rights Impact Assessment** is a newer element of the ESIA process, which ensures that potentially violating impacts are avoided in the design of an investment or development project, and ensuring that adequate and effective remedies are available, both at the project and national levels, should such measures fail. Before a transnational corporation or other business enterprise pursues a major initiative or project, it shall, to the extent of its resources and capabilities, study the human rights impact of that project in the light of these Norms. The impact statement shall include a description of the action, its need, anticipated benefits, an analysis of any human rights impact related to the action, an analysis of reasonable alternatives to the action, and identification of ways to reduce any negative human rights consequences. A transnational corporation or other business enterprise shall make available the results of that study to relevant stakeholders and shall consider any reactions from stakeholders.

Many project supporters adhere to some or all ILO's labor standards. IFC follow two of ILOs labor standards, namely No. 29: Forced Labor Convention (1930), and No. 182: The Worst Forms of Child Labor Convention (1999). On the other hand, the rest of the World Bank cannot yet bring itself to ban slavery and child abuse in the projects they finance. The WBG does not promote ILO's Convention 87 on the Freedom of Association, nor Convention 98 on the Right to Collective Bargaining, Nor Convention 100 and 111 on Discrimination). The WBG has not been enthusiastic on collective action; in fact WBG-financed revisions of national mining codes have explicitly been anti-labor and industry-friendly in this regard.

ILO has useful standards on mine safety (No. 176: Safety and Health in Mines Convention, 1995), and on Indigenous Peoples (No. 107 Indigenous and Tribal Populations Convention, 1957 & No. 169 Indigenous and Tribal Peoples Convention, 1989). These have recently (September 2007) been updated by the adoption by the UN General Assembly of the Declaration on the Rights of Indigenous Peoples (amplified in the section on Indigenous Peoples).

## **Involuntary Resettlement**

Involuntary resettlement is the unacceptable underbelly of economic development. More than any other issue, IR severely tarnishes the reputation of development. Without exaggeration, IR is the least satisfactory issue in economic development.

### **Box : Ten Reasons Why IR Undermines Economic Development**

1. First, IR is numerically gigantic, possibly 300 million people have been forcibly displaced in the name of economic development since it began in the 1950s. More than 10 million humans are displaced in the name of economic development every year by public sector projects alone.
2. Second, displacement impoverishes practically all oustees. That means development -- or one element of it namely IR -- actually increases poverty, rather than helping to reduce it as the most important goal of development.
3. Third, the systematic use of violence as a routine tool of economic development is unacceptable in terms of justice, equity, economics, and human rights.
4. Fourth, where force is used, economics does not apply. Development is supposed to be run on economic principles, especially willing seller and willing buyer.
5. Fifth, any development agency relying on force or coercion violates basic human rights by any definition.
6. Sixth, the reasons development resorts to violence are ignoble; it is cheaper to kick people out than to resettle them humanely. Sacrificing the poor reduces development costs.
7. Seventh, the humans displaced by development are inevitably the poorest; were they not poor, they would have more voice and more likely to be left in peace.
8. Eighth, violence is inequitable; it benefits the rich and harms the poor. The beneficiaries of the use of force are mainly the non-poor in distant cities who receive cheaper electricity from the reservoir from which the poor have been deracinated. Or shareholders in a mine which destroyed forests, rice terraces, and fish farms down slope.
9. Ninth, IR is not yet systematically prevented by designing the development project to avoid have to displace anybody. IR must be reduced to a rock-bottom minimum becoming rare and numerically minor.
10. Tenth, despite the well-known fact that practically all resettlement schemes are failures, the consistent policy is to continue or increase the use of force. No project should be permitted if it proposes to use force.

The current policy is that oustees shall be no worse off after their move. That aim for stagnation (no worse off) is not yet achieved. Even if the 'no worse off' policy were to be achieved, it has no time limit, so incomes may be restored a decade or so after the oustees have sacrificed themselves. Clearly the policy must be to ensure oustees are modestly better off (otherwise it cannot be called 'development') immediately after the moment their move is agreed on. A policy of being 'no worse off' immediately after their move also is unacceptable because people commonly have to wait for several years before their actual move. During that pre-move wait, as humans, they disinvest, defer maintenance, phase down their agriculture, and may even suspend education and health measures.

Economic development practitioners must be given incentives to guarantee that oustees shall immediately be better off by means of insurance, performance bonds, stiff penalties for impoverishing anyone, or a combination of such measures. Compensation shall be at such a level to ensure that any inevitable resettlement becomes voluntary.

The ESIA must ensure that the project has been designed to avoid the need for IR. If a numerically small IR cannot, despite best efforts, be totally avoided, the ESIA must ensure that the incentives and penalties on the proponent will guarantee that the oustees will be promptly and unambiguously better off. The specific and detailed resettlement arrangements, timing, compensation, systems of incentives and disincentives must all be highlighted in the EMP and fully agreed on in the Impact Benefit Contract. This will promote FPIC and will end the use of violence in economic development.

## **Health Impact Assessment**

**Definition of Health Impact Assessment:** Public health impacts of projects have long been a part of standard ESIA, but they were rarely adequately assessed. Best practice for the last decades has been to separate out Health Impact Assessment (HIA) from standard ESIA and to a more professional job. HIA has become the main tool to integrate health into all projects and policies. HIA is a combination of procedures, methods and tools by which a policy, program or project may be assessed as to its potential impacts on the health of a population, often the communities in the vicinity of a proposed mining project. HIA addresses all determinants of health, tackling inequities, and fostering participation and empowerment in health. HIA is a public health preventive foundation for improved health and wellbeing of people likely to be affected by mining proposals.

**Health and Violence:** The institutionalized use of violence by governments and mining corporations against humans “in the way” of minerals and mining projects is increasing and must be stopped as soon as possible. Violence means either humans are kicked out of their villages or their environments (e.g., forests, water bodies) are destroyed. One way is for stakeholders to adopt and follow a set of human rights norms and procedures as outlined elsewhere in this report. Another way is to include Health Impact Assessment (HIA) as part of the standard Social and Environmental Impact Assessment (ESIA).

HIA is important because when people are subjected to violence, their health is damaged. Health damage includes physical wounds (beatings, mutilation) and restriction of freedom (e.g., imprisonment, death). The HIA should assess the potential for the use of violence and force on communities one or near a proposed mining site. Involuntary resettlement is one of the most frequent instances of the use of force. In addition, such resettlement usually entails several or many years between displacement and restoration of previous levels of livelihoods. That means several or many years of enforced poverty for victims of displacement. Displacement-induced poverty promotes disease and dependency. Poverty ends as soon as the displaced people have as much money and goods (housing, home-gardens) in their new sites as they had before being displaced. Non-IPs are often traumatized by displacement but they may, at great cost and suffering, eventually get over it -- as livelihoods are restored, farms begin to yield, jobs are found, and social cohesion returns

## **The Special Case of Indigenous Peoples**

For Indigenous Peoples, displacement is totally different and far worse. IPs are more attached to the environment than are non-IPs. IPs look upon their specific environment (e.g., forest, mountain, river) as part of themselves; “Mother Earth” is no exaggeration. For many, at least until recently, money was unknown or had little meaning. All IPs needs were satisfied by the environment. Shifting cultivation, combined with fishing and gathering forest products, was a sustainable way of life. IPs did not feel poor. Their environments provided for every need. Shifting cultivation became easier as metal tools were acquired, but the link to their environment was absolute. Their knowledge made the environment sacred.

Sacred means entitled to veneration and respect because of dedication to purpose, namely to their livelihoods and total survival. Environment is sacred because it is their livelihood, hence must be protected against violation by reverence and a sense of right. That is why IPs often pine and die when displaced from their environments. International institutions (e.g., ILO, World Bank, ADB) have realized this fact so their policies accept that the project should be re-sited and the IPs living there left in peace.

Deracination of IPs is not just increase in poverty; it often means death of individuals and of their society. That is why ancestral domains should not be open for mining projects. Deforestation is akin to loss of livelihoods, hence is a profanity against their sacred respect for and dependence on the environment. Deforestation of a relatively small tract of forest does not harm the IPs greatly. They are resilient and will adapt in material terms to the loss. But their anguish is seeing the death and wounding of their sacred life- supports by such deforestation impoverishes and wounds their community. Deforestation means their rights have been violated, so the society will suffer. This may be translated into non-indigenous terms such as ‘angering the spirits’, and is extremely real to IPs. So real in fact that it damages their health.

*The Asian Development Bank affirms that indigenous peoples’ indeed have distinctive perspectives on poverty and development. The indigenous resource persons claim that powerlessness, deprivation from access to their land and resources, lack of knowledge (due to lack of education), insufficient income, and alienation from kin/clan and their culture form the key indicators of poverty. The most frequently mentioned causes of poverty among them are dislocation from ancestral domains and limited or no access to resources in their territories. Displacement is in turn caused by the intrusion of mainstream “development” projects and programs, militarization, and land-grabbing by settlers/migrants. Official information on ethnicity and development is extremely limited. However, available data reveal that indigenous peoples are not necessarily the “poorest of the poor” in the Philippines. Their regions are relatively wealthy, but extreme inequality, poor infrastructure, and massive exploitation contribute to the worsening poverty situation of these communities. (Rovillas & Morales 2002).*

The HIA should assess the potential impacts on Indigenous Peoples of displacement before the decision about the mining project goes ahead. Based on the HIA, NCIP must advise the Department of Environment and Natural Resources (DENR) against such deracination. This is the over-riding health impact of mining on IPs.

### **Conventional Health Assessment**

The other health impacts of mining on IPs are better known, and most are outlined in the preceding text. Mining means a large influx of workers carrying communicable disease,



especially sexually-transmitted disease and HIV/AIDS. Miners cause violence, prostitution, alcoholism and familial breakdown. Erosion and silt damages crop production, which reduces nutrition. Pollution such as acid mine drainage and cyanide, as well as leakage of heavy metals (e.g., mercury, lead, cadmium, arsenic, chromium, nickel, and copper) damages health and food production. Many such metals are cumulative poisons that accumulate up the food chain. Plants that are eaten by herbivorous fish absorb the toxins. Carnivorous fish in turn eats these. Carnivorous fish may accumulate mercury to levels poisonous to humans. Pregnant mothers and infants are especially susceptible to harm.

### **Public Health by Mining Corporations**

Because it is in the interest of the project proponent to control infectious diseases in the region of the industry (e.g., malarial mosquitoes do not respect barbed wire security fences), permitting the outside community access to public health care will improve the health of employees. The standard package is inexpensive: immunizations, control of infectious diseases, treated bed nets, maternal and child health, TB, pneumonia etc. These programs can be enormous successes. Mine closure programs would ensure the sustainable devolution of the health services to the government or others.

While they can be progressive public health forces, mining projects can also cause serious health problems in the communities in which they operate. The government (e.g., DENR) needs to ensure that the mining does not impair public health – through, for example, prevention of air and water pollution, toxic effluents, acid mine drainage, tailings disposal risks, dam and other failures and leakages, and infectious diseases brought in by the corporation or increased by vector breeding sites created by the project.

Sustainable development improves public health. If the mining harms health, it worsens poverty and prevents sustainable development. Therefore, by prudent design and education, health risks must be prevented to the fullest extent possible.

Where the health impact stems directly from the industry, (e.g., mercury or cyanide poisoning) health insurance for everyone affected by the project should be mandatory. The challenge of proving that the health impact stems from the project needs to be agreed upon, but with more presumption than hitherto on the side of the poor and vulnerable. The affected poor people themselves cannot be expected to legally ‘prove’ they have mercury poisoning, for example, as was denied in Minamata Bay for decades. Mining corporations naturally wants to avoid open-ended commitments. In 2002, U.S. coal corporations won their case against the United Mine Workers in the Supreme Court stating that they do not have to pay lifetime health costs of coal-related disease in coal workers who retired from other coal firms that were absorbed by modern-day corporations.

Trust is essential and much goodwill can be garnered by inexpensive measures. Health insurance needs to be securely vested because it has to continue long after mine closure in view of the long lag time between cause and effect. For example, asbestosis occurs years after exposure; coal’s pneumoconiosis and silicosis may occur a decade or more after exposure. Compensation for project-related health damage may include disability pensions, performance bonds, or trust funds, as appropriate. For example, the Anglo American Corporation is being asked to contribute to the \$21 million STG Trust Fund for the 7500 victims of asbestosis in South Africa.

Asbestos corporations are considering de-listing themselves from international stock exchanges possibly to distance themselves from regulatory scrutiny. China, which has developed the world's largest mining industry, announced in April 2002 that the sector had more than one million cases of silicosis. Obviously, therefore, prevention is always preferable to cleaning up a public health disaster after the fact.

### ***The Panel of Social and Environmental Experts***

*Selection of Experts:* POE members should be senior professionals and undisputed leaders in their fields, with several decades of relevant experience. Specific experience is critical. It has to be fairly recent and it has to be appropriate to the sector or type of project being examined. A world class dam expert may not have kept up with the latest technology in pipeline technology, for example. POE's are too expensive to permit steep learning curves. Panelists should have more experience than project experts or consultants employed by the project. If the POE does not provide clear value added, it was not appropriately selected. Based on this leadership and experience, panelists should have individual scientific reputations built up over the years.

The reputation aspect is important in order to resolve judgmental and qualitative disagreements with project proponents, government, international finance institutions, and civil society. Panelists differ from Government staff and consultants in that the latter are more beholden to their employers and may be more biased. The names, addresses and affiliations of panelists should be appended to their reports, although they work in an individual capacity. Panelists have to be frank and will protect their scientific reputations as they know critics will argue with them. Panelists put their reputations for scientific integrity and independence on the line in drafting and signing their reports. Panelists need to be able to stand up to the project proponent in the face of negative findings. Regular consultants may tend to sanitize their findings in order to keep on being hired. Panelists should prefer to be frank and straightforward and should not depend so much on re-hiring.

#### Annex 4: World Bank's Concept Note: Mining Sector Review: D R Congo; "Mining: Growth with Governance."<sup>18</sup>

23 January 2007; Excerpts Only. Note: This Annex is included here for its useful factual summary of Congo mining, and to show that the World Bank is determined to promote large-scale mining vigorously. Odd that this Concept Note excludes environment and most social impacts, including Indigenous Peoples, and risks of toxic spills the attention accorded in the World Bank's Concept Note to Involuntary Resettlement, deforestation, Indigenous Peoples, and toxic spills.

Background: Mining has been the backbone (or *poumon* to use Mobutu's term) of the Congolese economy since colonial times. In fact, the country is commonly called a "geological scandal", possessing valuable mineral reserves of copper, cobalt, gold, diamonds, coltan, coal, petroleum, and other commodities. At present, approximately US\$ 2 billion is being generated by exploitation of minerals on an industrial, quasi-industrial and artisanal scale.

Industrial production of minerals is a fraction of the levels achieved during the 1980s and 1990s, the decline occasioned by mismanagement and political interference of the various state owned enterprises. For instance, Gecamines, the flagship state copper/cobalt producer, cannot meet operating expenses given its scaled down production much less begin to address the issue of over USD 2 billion of debt it carries on its books. Yet, re-starting large scale industrial production of minerals and increasing effective government oversight of the mining sector offers the country the best hopes of kick-starting the economy. This will not be an easy task given the security situation in many parts of the country and the severe lack of infrastructure, particularly transport and power. In addition, there are numerous and credible allegations of fraud, corruption, massive clandestine exports of minerals, trading of minerals for arms, and foreign interference in key producing areas in respect of current and planned mining operations. During the transitional government a number of foreign companies have taken up investments in DRC in industrial or quasi-industrial exploitation. The majority of current minerals production is done by artisans and small scale miners. The number of these miners is conservatively estimated at 100,000+ and they operate in virtually all of the mineral producing areas of the country. There are significant issues of occupational health and safety, lack of environmental protection, child labor, human rights abuses, exploitation of workers, and indentured servitude. It is alleged that much of the artisanal production, especially in the east of the country, is controlled by foreign states and revenues are used to support various political factions and war-lords. The government has so far proved unable to exert its hegemony over these producing areas. Even in areas where the central government does have control, in Katanga, for instance, there is little effective government oversight of production.

The Bank has been active in the minerals sector in DRC since the peace agreements. Through IDF and other grants, the Bank provided technical assistance to prepare the new mining code and the accompanying regulations which were passed in 2002. **This code is excellent** (emphasis added) and provides a good basis for the State to exercise its legitimate responsibility to regulate the sector in a clear and consistent manner. However, implementation of the new mining code has been problematic and there serious deficiencies of capacity of the Ministry of Mines and other government agencies to effectively enforce and administer the legislation.

1. *Mining as a Source of Growth.* The purpose of this introductory chapter is to present the potential mining sector growth vectors and the attendant socio-economic and financial impacts, both positive and negative.
2. *Role of the Artisanal and Small Scale Miners.* There are an estimated 500,000 to 1,000,000+ persons who earn a livelihood in artisanal and/or small scale mining in DRC. With dependents there could be as many as 3-5 million people who depend on this sector. The artisans mine principally gold, diamonds, coltan, and

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<sup>18</sup> DR Congo: This \$50 million project "Growth with Governance in the Mineral Sector" had its 9-page Project Information Document published in April 2008, led by IFC's Craig Andrews for the Ministry of Mining.

heterogenite (cobalt ore). This is a very particular sub-sector which is of current interest to the Bank as well as other donors due to the poverty dimensions of the activities as well as links into other unsavory activities such as trafficking in arms, control of various warlords and factional leaders, allegations of child and human rights abuses, etc.

3. *Large Scale Mining Role of Gecamines and other Parastatals.* The government is undertaking, with Bank assistance, the restructuring of Gecamines. The mining investment agreements and contracts which have been signed by Gecamines and other parastatals with private companies are particularly controversial. The controversies concern principally the processes used to conclude the contracts (e.g., lack of appropriate valuation of assets, lack of competitive bid), their conformance to the Mining Law of 2002, and the terms and conditions of the contracts themselves, which are viewed by many as highly unfavorable to the interests of the State and company concerned. The study will not provide a detailed review of each contract but rather summarize the overall conclusions of the legal and financial reviews of the contracts which the government has undertaken by the Lutundula Commission, expert consultants (Duncan Allen and Ernst and Young), and other reports.
4. *Governance of the Mining Sector.* The regulatory and fiscal conditions for mining investments in DRC are reasonably clear and consistent with international practices. This chapter will briefly summarize main points of mine law and fiscal policies and draw out any discrepancies with international practice or legal issues pertaining. As in many other countries, the extractive industries are uniquely susceptible to corruption and non-transparent practices. This is certainly the case with DRC and there are numerous, persistent and credible allegations of corruption and non-transparent dealings. The government has endorsed and is in the process of implementing the Extractive Industries Transparency Initiative (EITI) which is an important step in the right direction.
5. *Involvement of Local Communities.* A critical issue in most countries is to ensure that benefits streams reach local populations. Mining operations, actual or proposed, in Congo will certainly face this issue. Already there have been incidents of unrest in around some mining operations. Related issues pertain to the “social assets” of Gecamines which pose a huge problem in terms of transferring them off of the balance sheet of Gecamines as part of the restructuring exercise.
6. *Physical Bottlenecks to Development of Mining.* Most private sector companies have noted severe deficiencies in terms of basic infrastructure, in particular road/rail transportation and power. The chapter will rely on published and unpublished information, as well as extensive contacts with Bank colleagues, for information relative to the infrastructure constraints.
7. *Road Map of Future Actions.* This chapter will summarize the recommendations and findings made in the previous chapters of the study. It will provide a plan of properly sequenced actions which the government, WBG, other donors, companies and civil society may consider over the future months. The action plan will also outline the main orientations of the possible sector investment credit of \$30-50 million as presented in the CAS. The actions proposed will be with a view to stimulate growth in the Congolese mining sector with proper governance. The study will be completed in draft form by end-March, 2007.

## **Environmental Liabilities**

**Excerpt from the major study starting with the above Concept Note.**

The Environmental impacts of mining operations in DRC are substantial and growing worse. The General impacts of mining activities on the environment, water, soil, and air pollution, are well-documented internationally. However, the DRC Government has yet to conduct an overall environmental impact study of the mining sector. This would help the Government to identify the salient issues and problems and to take appropriate measures to rectify them. Of particular note in this respect is that the Government has yet to develop environmental legislation in

general or for the mining sector in particular, apart from the occupational health and safety legislation inherited from prior years. Even if such environmental legislation existed, the government services responsible for mines inspection, as noted earlier, would have little or no capacity to enforce the legislation.

An initial step to prepare environmental baseline report will be conducted during the preparation of the proposed World Bank technical assistance grant for the mining sector. This initial study could be followed up during implementation of the project with more specific environmental studies.

Mine tailings and waste dumps are decaying and may suffer catastrophic failure, posing significant pollution dangers to water courses and agricultural soils. Acid mine drainage in many areas is polluting water supplies. Improper closure of pits and mines poses a danger to humans and animals. Heavy trucks, hauling equipment, supplies, and mineral product frequently pass-through villages at speeds that put inhabitants at risk. The many small-scale furnaces and processing plants that have been established in Katanga over the past several years to process the ores sold to them by artisans operate with few or no environmental protection measures. One such plant operated by Chemaf is allegedly dumping toxic effluent into the upstream catchment area for the water supply of Lubumbashi.

Legacy issues, pollution stocks, and pollution flows. Mining has taken place in many areas of DRC since the early 1900s. Over the years, significant stocks of pollution have accumulated, and old mine workings have not been properly closed or rehabilitated. This is a task which many countries face, but it will be particularly difficult and expensive for DRC, given the extensive nature of the problem. The Government will need to prepare a comprehensive inventory of the legacy sites and a national environmental remediation plan for the pollution stocks. Importantly, the partnership agreements signed between the state-owned enterprises and private partners generally explicitly waive any responsibility for existing environmental liabilities by the private partner or the new entity, which is created to operate the mine. The contracts state, in many cases, that the liabilities remain the responsibility of GECAMINES and/or the government. However, no audits have been conducted of the mines to distinguish the existing pollution stocks from probable future pollution flows. Under the principle of "polluter pays," the new company should be responsible for management and eventual remediation of these flows. Furthermore, the Mine Law specifies that all mineral rights holders need to establish an environmental rehabilitation guarantee in favor of the government. International practice is generally for the mineral rights holder to arrange for the posting of a bond or guarantee through a reputable financial institution, and the establishment of a special reserve account within the financial statements of the company to cover the eventual costs of rehabilitation. In practice, since there are no international or local banks in Congo willing to issue these guarantees, the company must pay substantial sums up-front as rehabilitation guarantees upon issuance or renewal of the mineral right. As has been noted, no evidence can be found of effective government agency control of the rehabilitation funds that the companies have paid; the funds that have been paid are unaccounted for.

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