RICH MAN, POOR MAN

DEVELOPMENT DIAMONDS AND POVERTY DIAMONDS:

THE POTENTIAL FOR CHANGE

IN THE ARTISANAL ALLUVIAL DIAMOND FIELDS OF AFRICA

SUMMARY AND A PROPOSAL

DIAMONDS HAVE BEEN AN IMPORTANT ENGINE OF GROWTH AND DEVELOPMENT IN MANY COUNTRIES: SOUTH AFRICA, BOTSWANA, NAMIBIA AND OTHERS. DIAMONDS HAVE ALSO HELPED FUEL DEVASTATING WARS IN ANGOLA, SIERRA LEONE AND THE DEMOCRATIC REPUBLIC OF THE CONGO. THE "PEACE" THAT NOW PREVAILS IN THESE COUNTRIES IS SUPPORTED BY MAJOR UN PEACEKEEPING EFFORTS THAT IN THE LONG RUN ARE NOT SUSTAINABLE. THESE COUNTRIES, HOWEVER, NOW HAVE AN OPPORTUNITY TO BUILD, TO STRENGTHEN GOVERNANCE AND DEMOCRACY, AND TO INSTITUTE REFORMS WHICH WILL TURN DIAMONDS FROM A LIABILITY INTO AN ASSET.

The diamond industry has often portrayed diamonds in this way — as a developmental asset: "development diamonds" and even "prosperity diamonds". Botswana, South Africa and Namibia are often held up as models. The World Bank puts governance at the centre of its recovery formula, but adds that "poverty increases the likelihood of civil war… the key root cause of conflict is the failure of economic development." This study, which involved many weeks of travel by researchers in Guinea and in the diamond fields of Sierra Leone, Angola and the DRC goes beyond exhortation and textbook nostrums and examines the reality on the ground. It goes directly to the one million diggers who earn a subsistence living from alluvial diamonds. It examines the real economic potential of alluvial diamonds for changing their lives and for generating meaningful macroeconomic growth.

The study has produced some startling findings. First, it concludes that ***artisanal alluvial diamond mining will never generate large amounts of revenue for the governments in question.*** The nature of alluvial diamonds and of artisanal mining makes any kind of meaningful taxation almost impossible. It is important, therefore, to ensure that any expectations about these diamonds are realistic. Second, it concludes that ***most artisanal diggers, working in a casino economy and hoping to strike it rich, actually earn an average of only a dollar a day***. Their work is hard, dirty, and it is completely outside the formal job market. This places them squarely in the "absolute poverty" income bracket. The slogan here is more one of "poverty diamonds" than of "prosperity diamonds".

Given the large mark-up at the first point of sale, and the almost complete absence of a free market diamond economy in the digging fields, ***there are opportunities to increase the earnings of miners***. The constraints, however, are political, economic, social and historical, and they are enormous. And there is a paradox: if the earnings of miners go up, more may be attracted to an already over-crowded enterprise. This does not make the challenge less important, however. ***Real change could reduce the chaos and instability that the diamond fields spawn. At a minimum, diamonds could be the generator of decent incomes for hundreds of thousands of families, rather than the centre of unsafe, unhealthy, badly-paid piecework.*** There are enough pilot projects and enough experience to know that the potential is real.

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global witness

PARTNERSHIP AFRICA CANADA
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THE STUDY

THIS STUDY, WHICH INVOLVED EXTENSIVE TRAVEL IN THE DIAMOND AREAS OF SIERRA LEONE, ANGOLA AND THE DEMOCRATIC REPUBLIC OF THE CONGO, WAS CARRIED OUT ON BEHALF OF GLOBAL WITNESS AND PARTNERSHIP AFRICA CANADA, BETWEEN JUNE AND SEPTEMBER 2004, BY SEVERAL RESEARCHERS, INCLUDING CHRISTINE GORDON AND RALPH HAZLETON. ADDITIONAL WORK WAS CONTRIBUTED BY OCEAN-RDC, GRÉMIO ABC AND OTHERS. IAN SMILLIE SERVED AS OVERALL EDITOR. FUNDING FOR THE STUDY WAS PROVIDED BY THE COOPERATIVE BANK (UK), THE BRITISH DEPARTMENT FOR INTERNATIONAL DEVELOPMENT, DEVELOPMENT COOPERATION IRELAND, THE PEACEBUILDING FUND OF THE CANADIAN DEPARTMENT OF FOREIGN AFFAIRS AND OXFAM AMERICA. THE TWO ORGANIZATIONS AND THE AUTHORS WOULD LIKE TO THANK THE MANY INDIVIDUALS WHO ASSISTED IN THE RESEARCH, AND THOSE WHO OFFERED HELPFUL COMMENTS ON EARLY DRAFTS.

A PROPOSAL

CHANGE WILL NOT HAPPEN IF IT IS LEFT TO CHANCE, TO SLOGANS AND STUDIES, AND IF THOSE WHO KNOW DIAMONDS SAY THAT THE RESPONSIBILITY LIES ELSEWHERE. WE HOPE THAT THE FINDINGS IN THIS REPORT WILL BE CONSIDERED WITHIN THE COMMUNITY OF ORGANIZATIONS, GOVERNMENTS AND COMPANIES THAT HAVE, UNTIL NOW, FOCUSSED MAINLY ON THE ISSUE OF CONFLICT DIAMONDS. WE HOPE IT WILL GENERATE DEBATE, BETTER INFORMATION, AND NEW IDEAS.

We do not propose detailed solutions in this report, but the problems and questions can now be articulated more clearly. It is important to get beyond the conflict diamond cure that is the Kimberley Process, to a level of longer-term *prevention* that is both practical and meaningful.

Solutions must go beyond a few pilot projects; there must be a quantum change in the artisanal alluvial diamond fields of Africa. *Because alluvial diamonds provide a livelihood for a million miners and their families, this is as big a development challenge as any in Africa. And because of the casino economy underlying the enterprise, alluvial diamonds continue to represent a major human security challenge in half a dozen countries or more.*

Our longer-term aim is to improve this report, the findings and the recommendations, and then **to organize a larger forum that will bring a wider group of stakeholders into the discussion: the governments of countries where alluvial diamonds are mined, the Kimberley Process, the World Bank, UNDP, the African Development Bank, bilateral agencies, a wider cross-section of the diamond industry and major international and African NGOs.**

INTRODUCTION

THE TERRIBLE WARS IN SIERRA LEONE AND ANGOLA, FUELLED IN PART BY DIAMONDS, HAVE ENDED. AND THERE IS A FRAGILE PEACE PROCESS IN THE DEMOCRATIC REPUBLIC OF THE CONGO. "THERE ARE NO MORE CONFLICT DIAMONDS," SOME SAY. "WE HAVE TURNED A CORNER AND WE CAN NOW MOVE ON TO THE BRIGHT SUNLIT UPLANDS OF 'DEVELOPMENT DIAMONDS' – AND EVEN 'PROSPERITY DIAMONDS'." WHILE THERE HAVE BEEN GREAT CHANGES IN THE PAST TWO YEARS, HUBRIS CAN BE DANGEROUS.

It is unlikely that UNITA in Angola or the RUF in Sierra Leone could reconstitute themselves or be copied in the short run. With the world's three largest UN peacekeeping forces at work in Sierra Leone, Liberia and the DRC, a serious damper has been placed on rebel opportunity and viability, both military and economic. But West Africa – especially Liberia, Côte d'Ivoire and Guinea – remains unstable, as does the eastern DRC. In October 2004, there were still 340,000 Liberian refugees scattered across West Africa, more than 13 per cent of the country's entire population.

It is worth noting as well, that as of mid 2004, UNAMSIL, UNMIL and MONUC had a total of 35,000 troops on the ground – the equivalent of almost four divisions – with combined budgets of more than $1.8 billion to June 2005.* This is an enormous expense, and it is not sustainable. It does, however, give the governments involved time to heal wounds, to create new physical and political infrastructure, and to try to establish conditions for a more lasting peace. The future of these countries now turns on whether productive activities can be made available to the young men who fought in the wars, and the other young men coming after them – productive enterprises that outweigh the return on more dangerous activities.

A recent World Bank publication compares the evolution of Botswana and Sierra Leone, which in 1970 were both low-income countries with significant diamond resources.[1] In Botswana, diamonds were the engine of growth, making the country one of the fastest growing economies in the world, while Sierra Leone has been last on the UN's Human Development Index for more than a decade. Botswana, the World Bank says, maintained a "stable and well-functioning democracy" while in Sierra Leone, "poor governance led to the state's collapse and created the incentive as well as the opportunity for a rebellion throughout the 1990s." The issue, from this perspective, is one of governance. A corrupt Sierra Leone government "lost control over its assets" allowing organized criminals to take over diamond mining. Youth were marginalized, the economy collapsed and a rebel leader then found it "relatively easy" to finance a war through diamond extraction. The message here is that African countries must now put their houses in order. The Bank's message has a second part. Civil wars are heavily concentrated in the poorest countries: "poverty increases the likelihood of civil war… the key root cause of conflict is the failure of economic development."[2]

This study deals with the twin issues of governance and development in relation to the diamond economies of Sierra Leone, Angola and the DRC. But it posits that control over diamond resources is not simply a matter of establishing a "stable and well functioning democracy", and that even if achieved, this in and of itself is no guarantee that diamonds will be an engine of development.

The geological nature of diamonds creates special situations. The Kimberlite mines of Botswana, Canada and Russia can be fenced and protected. Alluvial diamonds, however, scattered over hundreds of square miles, present a very difficult regulatory problem. This is especially true in the DRC, Sierra Leone and Angola, but it is also true of Guinea, Liberia, Côte d'Ivoire, Ghana, the Central African Republic and elsewhere. The colonial regimes

TERMINOLOGY AND ACRONYMS

KIMBERLITE DIAMONDS ARE FOUND IN VOLCANIC "PIPES" THAT CAN BE FENCED AND MINED WITH HEAVY, CAPITAL INTENSIVE EQUIPMENT. **ALLUVIAL DIAMONDS** RESULT FROM MILLIONS OF YEARS OF EROSION ON SOME KIMBERLITES, AND THE SPREADING OF DIAMONDS BY RIVERS OVER VAST GEOGRAPHIC AREAS. **ARTISANAL MINING** (BY ARTISANS) MEANS SMALL-SCALE MINING WITH THE SIMPLEST OF TOOLS, ON A SUBSISTENCE LEVEL.

DACDF	Diamond Area Community Development Fund
DRC	Democratic Republic of the Congo
ECOWAS	Economic Community of West African States
FAA	*Forças Armadas Angolanas*
GGDO	Government Gold and Diamond Office
ILO	International Labour Organization
MIBA	*Société Minière de Bakwanga*
MMO	Mines Monitoring Officer
MONUC	*Mission des Nations Unies en République Démocratique du Congo*
PDA	Peace Diamond Alliance
RUF	Revolutionary United Front
SAESSCAM	*Service d'Assistance et d'Encadrement du Small Scale Mining*
SODIAM	*Sociedade de Comercialização de Diamantes*
UNAMSIL	United Nations Mission in Sierra Leone
UNITA	*União Nacional para Independencia Total de Angola*
UNMIL	United Nations Mission in Liberia
USAID	United States Agency for International Development

* *MONUC alone, which had a mandate of 10,800 peacekeepers, began increasing its troop strength to 24,000 starting in October 2004.*

in Angola and the Congo exercised control over natural resources in a particularly harsh manner. And both countries descended into fratricidal warfare within weeks of independence, and never recovered. Resource exploitation, which might have been an asset for development, never had a chance. In Sierra Leone the colonial regime was less harsh, but the "stable and well functioning democracy" inherited at independence was veneer-thin. Diamonds in particular had never been well controlled, and were the subject of massive (and failed) crackdowns before and after independence. To make matters worse in Angola, the DRC and Sierra Leone, the alluvial diamond fields acted as a magnet for hundreds of thousands of young men who, in each case, eventually became recruits for, or slaves of, rebel forces.

And when rebel movements began to look at diamonds, they found a completely unregulated and highly secretive international trading system that was already adept at avoiding unwanted taxes and unwanted attention. It took two to tango. The problem was not only one of absent control and absent democracies; it was also the attendant presence of buyers who asked no questions in their drive for the lowest possible price.

The wars ended for various reasons. Each country was different. But the common theme was diamonds. Intense media attention, growing industry awareness, UN reports and embargos, and NGO investigations all helped to choke the supply of funds to Charles Taylor and the RUF in Liberia and Sierra Leone. Jonas Savimbi sold fewer diamonds in his last year than at any time over the previous decade. The Kimberley Process – weak and faltering as it was in its first three years – helped, by ensuring that all governments and the entire diamond industry were involved, and by demonstrating that there could never be a return to "business as usual" where conflict diamonds were concerned.

If the Kimberley Process grows the teeth it needs, it can reduce many of the opportunities that still exist for laundering illicit diamonds into the legitimate trade. Already there has been progress. In 2003, Sierra Leone recorded its largest export level in more than two decades, at US$76 million in total. This was an 85 per cent increase over 2002 and triple what was officially exported in 2001. The 2004 figures are even better. And the DRC exported an all-time record of $642 million in rough diamonds, a 62 per cent increase over the previous year. Both governments attribute the increase, in part, to the Kimberley Process.

ONE MILLION DIAMOND DIGGERS

But there is a problem overshadowing the bright statistics, the tentative peace arrangements and the efforts, at least in some places, to build democratic and responsible government. A huge number of young men still swarm over the alluvial diamond fields

THE KPCS

THE KIMBERLEY PROCESS CERTIFICATION SCHEME (KPCS) FOR ROUGH DIAMONDS CAME INTO EFFECT ON JANUARY 1, 2003. OVER 40 COUNTRIES, PLUS ALL THOSE REPRESENTED BY THE EUROPEAN COMMUNITY, PARTICIPATE. UNDER THE TERMS OF THIS AGREEMENT, EACH PARTICIPANT AGREES TO ISSUE A CERTIFICATE TO ACCOMPANY ANY ROUGH DIAMONDS BEING EXPORTED FROM ITS TERRITORY, CERTIFYING THAT THE DIAMONDS ARE CONFLICT-FREE. EACH COUNTRY MUST THEREFORE BE ABLE TO TRACK THE DIAMONDS BEING OFFERED FOR EXPORT BACK TO THE PLACE WHERE THEY WERE MINED, OR TO THE POINT OF IMPORT. ALL IMPORTING COUNTRIES AGREE NOT TO ALLOW ANY ROUGH DIAMONDS INTO THEIR TERRITORY WITHOUT AN APPROVED KPCS CERTIFICATE.

GIVEN THE LARGE VOLUME OF DIAMONDS BEING TRADED ACROSS BORDERS, IT HAS ALSO BEEN DEEMED NECESSARY TO PRODUCE TRADE AND PRODUCTION STATISTICS WHICH CAN BE COMPARED FROM TIME TO TIME IN ORDER TO ENSURE THAT THE VOLUMES LEAVING ONE COUNTRY MATCH THOSE ENTERING ANOTHER. AS OF LATE 2004, THE KPCS STATISTICAL SYSTEM WAS STILL UNDER DEVELOPMENT. A FURTHER GENERAL VERIFICATION PROBLEM EXISTS: MONITORING, WHICH MUST BE UNIVERSAL IN ORDER TO BE EFFECTIVE, REMAINS A VOLUNTARY ARRANGEMENT IN THE KPCS. MANY PEER REVIEWS HAVE NOW BEEN CARRIED OUT, HOWEVER, AND IT IS EXPECTED THAT AT LEAST HALF OF THE PARTICIPANTS WILL HAVE BEEN REVIEWED BY MID 2005.

of Africa. In Sierra Leone there may be as many as 120,000. In the Congo, the government estimates 700,000. In Angola, despite the recent expulsions of illicit Congolese diggers, there may still be 150,000. Taken together with diggers in Guinea, Ghana and elsewhere, there are probably a million African artisanal alluvial diamond diggers. Almost all of them are unregistered and unregulated. These young men, who work for nothing except what they are lucky enough to find — and individually they don't find much — produce ten or maybe twenty per cent of the diamonds that go into the jewellery shops of London, Tokyo, Paris and New York. *They are an important part of the diamond industry.* But they are potentially dangerous, and over the past decade they have shown just how dangerous they can be.

Since colonial times, African governments have sought to limit the influx of people into alluvial diamond areas by a variety of means: pass systems; arrests; fines; imprisonment. Amnesty International has reported the shooting of illegal diggers on a mining concession in the DRC, and Angola has recently deported tens of thousands of illegal Congolese diamond miners. None of these efforts has ever worked for long.[3] The issue is not that the returns on alluvial diamond mining are high. The work is dirty, hard, sometimes dangerous, and it produces little more than a couple of hundred dollars a year for most diggers. In fact, the competitive scramble in a largely informal economy only serves to drive prices down at the pit level, creating a lucrative business for middlemen.

There are two issues here. The first has to do with the creation of viable economic alternatives for those who dig diamonds. This is a macro economic challenge that is considerably more daunting for countries emerging from war than others. The second is about converting the informal diamond digging economy into a more formal one. Cooperatives and other arrangements which provide organized workers with a better price for their labour could help to convert the competition for diamonds into competition for jobs. Given the number of people involved, and given the half century of destabilization fostered by an unregulated diamond trade, any successful investment could yield major dividends.

One thing is clear: given the nature of alluvial diamonds, and given the histories of Sierra Leone, Angola and the Congo, "development diamonds" will not happen by themselves. They will not come from foreign troops and an unsustainable $1.8 billion peacekeeping effort, or from ritual calls for stable and democratic government. And they will not come from mass arrests and expulsions.

ONE THING IS CLEAR: GIVEN THE NATURE OF ALLUVIAL DIAMONDS,
AND GIVEN THE HISTORIES OF SIERRA LEONE, ANGOLA AND THE CONGO,
"DEVELOPMENT DIAMONDS" WILL NOT HAPPEN BY THEMSELVES.

Working with African researchers and NGOs, Partnership Africa Canada and Global Witness have spent several months examining the problems and potential for "development diamonds" in Angola, Sierra Leone and the Democratic Republic of the Congo. Each country is addressed individually in the following sections, but some common — and disturbing — themes have emerged from the research.

MACRO LEVEL DEVELOPMENT

Botswana is regularly held up as a model to which other diamond producing governments should aspire: Democratic, efficient and honest, Botswana is able to generate more than $2 *billion* worth of diamonds annually, of which 70 per cent ends up in government coffers. This is a lot of money for development.

While it is true that Botswana stands out in front of others where democracy, efficiency and probity are concerned, it has other advantages related to diamonds. First, its diamond mines are incredibly rich — the richest in the world. More importantly from a macro economic point of view, they are all kimberlite mines. This means that the mines are easily fenced and controlled. It also means that mining operations are highly capital intensive. The number of direct jobs in Botswana's diamond industry is barely more than 6,000. Further, despite all of the contrary World Bank and IMF advice to developing countries, the government of Botswana has taken a direct share in the ownership of the diamond enterprise. Not only does it own 50 per cent of the mining operations in partnership with De Beers — which owns the rest — it also owns 10 per cent of De Beers.

None of these advantages and opportunities is open to the governments of countries with alluvial diamond mines. The "mines", which cover thousands of square kilometres, cannot be fenced, and can only be policed at great cost. There are few, if any, major corporate investors, and efforts at government control and ownership have inevitably failed. The glittering 70 per cent return to the government of Botswana on its diamond investment is held up as a model to others, but it is little more than a cruel mirage where alluvial diamonds are concerned.

Apart from licensing fees, which are simply ignored by mine operators if they become exorbitant, governments rely mainly on export taxes for diamond income. Typically, and in major contrast to Botswana, these have been set at three per cent of the export value. When governments have raised the tax, diamonds have simply disappeared. The most prominent example has been the massive traffic in diamonds out of the Republic of Congo (ROC) – Brazzaville over the past decade. With an export tax of two per cent, the ROC – which has few diamond resources of its own – became a magnet for smuggled goods from the DRC, where the export tax is four per cent. The $20,000 differential on each million dollar shipment made the river crossing between Kinshasa and Brazzaville well worth the effort.

It can be concluded, therefore, with some assurance, that ***artisanal alluvial diamond mining will never generate large amounts of revenue for the governments in question.*** The best-case scenario is the DRC, where export taxes on $584 million worth of alluvial diamonds yielded $23 million in government revenue in 2003, and where licence fees – if properly collected (a very distant prospect) – might conceivably yield another $50 or $60 million. Angola currently aims to purchase $20 million a month worth of diamonds from artisanal miners.* At most, this would yield about $7 million in annual export taxes, plus a further million dollars or so in licence fees. The net revenue to the government after costs might be four or five million dollars a year. This is very small in relation to the $3 billion or more generated each year by the oil industry, and it is small in relation to the overall development budget of the country. In the case of Sierra Leone, this report shows that the net diamond revenue to government is less than three million dollars annually, with little prospect of any significant increase. In the case of even smaller producers such as Liberia, the cost of running a Kimberley Process certification system would actually exceed the tax revenue generated.

MICRO DEVELOPMENT: POVERTY DIAMONDS

Despite the low levels of revenue generated for governments from artisanal alluvial diamond mining, the value of these diamonds in Angola, DRC and Sierra Leone may be as high as a billion dollars annually. As noted above, this generates income for an estimated million artisanal diggers and their families. While these numbers are crude, some of the detailed studies in this paper bear out the mathematics. This is important from a development perspective.

But one billion dollars divided by one million diggers equals $1000 per person, per annum. And as the case studies show, while this is the gross per-digger export value, most diggers receive less than one third of the value of what they mine. Even in Ghana, where artisanal diamond mining – known locally as "galamsey" – is small in relation to the overall economy, the problems are large. Children are widely involved; residents of the mining areas complain of environmental degradation, water pollution, the influx of a migrant labour force with high rates of HIV/AIDS. Attempts by the government to deal with the illegal miners have often resulted in violence. And most alluvial diamond diggers lead hard, dangerous and unhealthy lives. ***With average earnings of less than a dollar a day they fall squarely into the broad category of "absolute poverty".***

In each country it is the middlemen – the diamond dealers, *négociants*, *patrocinadores* and the exporters – who take the lion's share of the income. In Sierra Leone, 74 per cent of all exports in 2003 were from five companies or individuals, all of them foreign nationals. In the DRC and Sierra Leone (and in Angola until recently), a high proportion of the middlemen have also been foreign nationals. The result is a concentration of profits in the hands of a small number of dealers and exporters, most of whom re-invest very little in the industry or the country. The value they add to the diamond trade is the pittance they pay the diggers – often little more than a meal a day – and the sieves, shovels, pumps and loans needed to keep the diggers working.

Ending the wars has not changed this. Nor will democracy and good governance in itself make many changes. Good governance, combined with the Kimberley Process, may reduce smuggling, but it will not provide better returns to diggers. Although each one hopes for the "big find" in this casino economy, it rarely happens, and diamond digging in reality is little more than a subsistence enterprise: "poverty diamonds". ***The poverty, the hundreds of thousands of willingly exploited adults and***

* *Even this volume is hypothetical, announced by an optimistic SODIAM official at the opening of a first buying office in Luanda in August 2004.*

children, and the volatility of the diamond fields make for a highly flammable social cocktail, one that has ignited several times in recent years, with tragic results.

OPTIONS FOR CHANGE

It does not take an economic wizard to understand that there are possibilities for change at the micro level. This study shows that the large mark-up between the digger and the first point of sale is enormous. And the mark-up between the first buyer and the exporter is also large. If exporters could move closer to diggers and pay better prices — i.e. closer to market value — those who actually mine the diamonds might be able to move beyond their poverty-level incomes.* The change would probably not be dramatic in absolute terms, because even if the return to a digger were to increase threefold, the total would not be great. But in relative terms the change would be enormous. Tripling the income of a million Africans living in poverty would be a major achievement.

Examples of change

- The government of Sierra Leone has created a "Diamond Area Community Development Fund". A percentage of the diamond export tax is returned to communities where diamonds are mined. The aim is to give something back to diamond communities and to encourage local commitment to legal operations. In 2003 more than $500,000 was returned to diamond mining communities through the DACDF;
- The government of the DRC has created SAESSCAM, *Service d'Assistance et d'Encadrement du Small Scale Mining*, to assist with the creation of artisanal mining cooperatives, training and financial assistance;
- With support from USAID, the Peace Diamond Alliance in Sierra Leone is organizing diggers in a cooperative arrangement and plans to hold diamond tenders for local and international buyers in the diamond area itself, bringing international prices to the diamonds, instead of the reverse.

So far, however, these pilot initiatives remain small, and each one has its own problems. Other generic initiatives could include:

- Loans to diggers, enabling them to invest in alternatives to diamond mining, such as agriculture;
- Loans to diggers to release them from the ubiquitous "supporter" systems, which are tantamount to indentured labour;
- Training for diggers to increase their productivity and their awareness of diamond values;
- Media campaigns to build public awareness and commitment in diamond mining areas to fair pricing and legitimate behaviour on the part of miners, traders and government officials;
- External assistance aimed at increasing governmental capacity for effective oversight of labour, safety and environmental regulations, and probity in the overall diamond trading system.

Obstacles to change

Despite the potential, the social, historical and economic obstacles to change are enormous:

- Diggers expect and need immediate payment for what they find. Any initiative that requires them to wait, even if the promised prices are higher, is likely to run into problems;
- Getting a digging operation licensed can be enormously time consuming and expensive. The Sierra Leone case study outlines the fifteen costly and time-consuming steps required before any mining can officially commence. Bribes are required at almost every step of the way. The same is true for dealer and export licences. Systems must be streamlined and the cost must be reduced before any successful pilots can be taken to scale;
- Meaningful change in the political economy of alluvial diamond buying is a zero sum game. In other words, better prices for diggers means lower prices for middlemen. There are large amounts of money involved, and the potential for harassment and violence is enormous. Governments will have to make special arrangements to encourage and protect initiatives that provide better prices to diggers, and they may be obliged to de-license or restrict some existing dealers.

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* *This is not to suggest a weakening of African trading infrastructures; rather it suggests that reductions in the large profits of middlemen could be made in ways that favour better prices for diggers.*

ARTISANAL MINING: NOT A PRETTY PICTURE

SMALL-SCALE MINING IS OF GREAT ECONOMIC AND SOCIAL SIGNIFICANCE. IT HAS BEEN ESTIMATED THAT THROUGHOUT THE WORLD SMALL-SCALE MINING INVOLVES APPROXIMATELY 13 MILLION PEOPLE DIRECTLY, AND AFFECTS THE LIVELIHOODS OF A FURTHER 80 TO 100 MILLION PEOPLE.[4]

The International Labour Organization (ILO) has specified one of the major difficulties with small-scale mining:

> Small-scale mining falls into two broad categories: the mining and quarrying of industrial minerals and construction materials on a small scale; and the mining of relatively high-value minerals, notably gold and precious stones. The first is mostly for local markets and exists in every country. Regulations to control and tax these mines and quarries are often in place, and the existence of informal or illegal operations at this level is generally attributable to a lack of inspection and the lax enforcement of regulations rather than to the lack of a legal framework, much the same as for small manufacturing plants. The output from the second category of small-scale mines is generally exported. *The size and character of small-scale mining of this type has often made what laws there are impossible to apply or has highlighted their inadequacy.*[5]

Although there are many definitions of "small-scale mining", alluvial diamond mining clearly falls into the second ILO category. Its unique characteristics appear to make "what laws there are impossible to apply or has highlighted their inadequacy". Alluvial diamond mining is actually a sub-set of the ILO's "small-scale" mining definition. The most appropriate term for this is artisanal mining. Again, there is a multitude of interpretations for what this means, but it is not an issue that requires much explanation. As defined by the Government of South Africa, "Artisanal mining means small-scale mining involving the extraction of minerals with the simplest of tools, on a subsistence level".[6] Artisanal mining of diamonds in Africa is carried out by people working with simple tools and equipment, usually in the informal sector, outside much of the legal and regulatory framework. The vast majority of the diggers are very poor, exploiting marginal deposits in harsh and sometimes dangerous conditions – and having considerable negative impact on the environment. To a large extent, artisanal diamond mining is a livelihood strategy adopted primarily by rural and small village populations for whom it appears to be the most promising income opportunity.

The activities of miners in this sector are often viewed negatively by governments, large companies and environmentalists. Concerns range from the use of child labour and the potential for environmental damage to the use of mine revenue to finance conflict.

At the extreme, governments consider the sector illegal and attempt to ban it through different means. In many cases, they simply neglect it, thereby allowing negative social and environmental impacts to be aggravated. There are no cases in Africa where artisanal diamond mining has been supported and regulated successfully, although South Africa is the most positive case, primarily because the majority of alluvial diamonds are mined on private property which can be policed, and where miners can be paid a wage.

The relationship between large companies and miners is poorly understood and is often troubled, characterized by mutual mistrust and sometimes conflict. Large companies usually consider small-scale miners as "trespassers", while miners often regard the granting of concessions to large companies as depriving them of their land and livelihoods.[7]

The contribution of artisanal diamond mining to income generation, employment, gross domestic product, export earnings and tax revenues varies dramatically from country to country. In Sierra Leone and the DRC it is important, for oil-rich Angola it is less important, and for South Africa it is insignificant. Sierra Leone's mineral economy is currently a "one-crop" economy and the "crop" is diamonds. Although there are other minerals mined in Sierra Leone, the diamond sector provides more jobs than any other after subsistence agriculture and is the largest contributor to GDP and export earnings.

CASE STUDY: SIERRA LEONE

INTRODUCTION

EVERYTHING SAID ABOUT THE GENERAL CASE FOR AND AGAINST ARTISANAL MINING, AND MORE, CAN BE SAID ABOUT ARTISANAL DIAMOND MINING IN SIERRA LEONE. THE COUNTRY HAS A LONG HISTORY OF DIAMONDS, AND THE REVENUE THEY GENERATED WAS ONCE THE MAINSTAY OF THE ECONOMY. HOWEVER, FROM THE EARLY 1970S ONWARD THE SECTOR BECAME INCREASINGLY DYSFUNCTIONAL, DOMINATED BY CORRUPT PRACTICES AND BAD POLICY. BY THE 1990S, THE DIAMOND INDUSTRY HAD NOT ONLY CEASED TO SERVE THE NEEDS OF THE COUNTRY, IT HAD BECOME A MOTOR FOR DESTABILIZATION AND COLLAPSE INTO CIVIL WAR. DURING THIS TEN-YEAR WAR, DIAMONDS CONTRIBUTED VIRTUALLY NOTHING TO THE ECONOMY OR TO SOCIETY IN GENERAL. RATHER, DIAMONDS HAD THE NEGATIVE EFFECT OF SUPPORTING AND PROLONGING THE REBEL WAR.[8]

Today, diamond mining once again makes a significant contribution to the economy, providing work for more people than any sector after subsistence farming. Although an estimated 120,000 people work as artisanal diamond miners, local populations have benefited little from diamonds mined in their area. Diggers share in the value of diamonds mined, but rarely receive a salary, and most average incomes of little more than a dollar a day. This is an informal economy, controlled by a small group of people who reap the real economic rewards.

Any critical analysis of the present economic and social structure of the artisanal diamond sector has to be tempered by the realization that the war in Sierra Leone ended only in 2002. For much of the previous decade, Sierra Leone was essentially a "failed state", with little or no influence on the diamond sector.

THE CONTRIBUTION OF ARTISANAL MINING TO THE ECONOMY OF SIERRA LEONE

Sierra Leone's diamonds are of a consistently high quality, with an average run-of-mine carat value that is higher than almost any other diamond producing country in the world. Artisanal diamond mining today makes a significant contribution to the general economy of Sierra Leone. It provides work for more people than any sector after subsistence farming, and is the country's major source of foreign exchange. A 2001 study estimated that by 2006, Sierra Leone would produce 750,000 to 1 million carats of diamonds a year, with exports rising from around $50 million in 2002 to as much as $180 million by 2006.[9] The country is already half way there. In 2003, Sierra Leone mined and legally exported approximately $76 million of diamonds from the alluvial fields. In 2004 the total may reach $120 million.

SIERRA LEONE DIAMOND EXPORT DATA[10]

Month	Value (US$)		Carats		Average price per carat	
	2003	2004	2003	2004	2003	2004
January	4,612,174	6,723,551	37,853	55,347	121.84	121.48
February	7,087,005	9,956,715	40,612	67,192	174.50	148.18
March	4,827,357	12,186,651	29,566	61,730	163.27	197.42

Interestingly, only ten per cent of the exports in the first six months of 2004 resulted from the start-up in November 2003 of industrial kimberlite mining in Kono District. The vast majority of diamond miners are in the artisanal sector – mining without much more than hand-held tools, shovels and sieves. They operate largely informally, are not regulated and have no written agreements with their employers. It has been estimated that there are between 150,000 and 200,000 artisanal diamond miners, although calculations below suggest that the actual number may be closer to 120,000.

The government charges fees for mining licences, dealers and dealers' agents, and exporters. As well, it collects a three per cent tax on all diamonds exported. This tax is levied on the exporter, who also pays US$40,000 for an annual export licence or $20,000 for half a year.

ESTIMATED GOVERNMENT REVENUE FROM THE DIAMOND SECTOR IN 2004[11] *(US DOLLARS)*

Three per cent export tax	$2,253,365
Exporters licence fees (estimate)	$1,315,800
Dealers licence fees (estimate)	$337,500
Licence Holders fees (estimate)	$759,000
Agents Licence fees (estimate)	$524,000
Total	**$5,189,665**

Additional revenues are generated from company royalties, exploration fees and surface rents paid to chiefdoms. These figures are somewhat misleading, however. While a small amount of the revenue is available for general government expenditure, a large part of it is devoted to the regulation and management of the licensing system, to fees for independent external valuators and to maintain Kimberley Process minimum standards.

For example, the three per cent export tax is divided as follows:[12]

Development Area Community Development Fund	0.75%	US$569,773
Valuation Fee	0.75%	$569,773
Individual Valuation Fee	0.40%	$303,879
Monitoring Fee	0.35%	$240,167
To general revenue	0.75%	$569,773
Total	**3.00%**	**$2,253,365**

ILLICIT BEHAVIOUR

The value of official exports would be much higher were it not for smuggling. Unofficial government estimates place the level of smuggling at 50 per cent, and one recent study suggests that it is much higher.[13] In addition to diamonds being smuggled out, diamonds are also smuggled in from Guinea, Liberia and farther afield.

The structure of the alluvial diamond trade in Sierra Leone is particularly complex, as reflected in the number of players, tiers and government processes, which involve traditional authorities, local governments and the central government. On the surface, the artisanal diamond sector looks as though it is fully located within the formal legitimized Sierra Leone economy. Licence holders formally apply through a defined government system, which includes traditional authorities, local government and the state. Sizes of digging sites and the number of miners on a site are specified by the government, and superficially it appears as though licence holders sell their diamonds in an open and competitive market.

The truth is, however, that large parts of the industry are informal and are, for all practical purposes, monopolized by a relatively small group of people who dictate the price of rough diamonds, reap most of the economic rewards and exploit those in the production chain below them. The reasons can be found in the lack of market knowledge among diggers and miners, limited access to capital, corruption and the ineffective application of corrective policies.

EFFORTS TO MINIMIZE ILLICIT BEHAVIOUR

In 2003, the Mines Policy of 1998 was amended to create an incentive scheme for good performance among what are called "foreign nationals": a tax break of 0.50 per cent on all exports over $10 million. Hisham Mackie, the country's biggest exporter, was the only one to benefit from this scheme, which meant that he saved $90,000, a figure he matched again in the first half of 2004 alone. A similar tax break is offered to "indigenous citizens" exporting more than $1 million worth of diamonds. Five individuals or companies reached this plateau in 2003. This policy may be positive and necessary in order to curb smuggling, but it also contradicts one of the most important principles of modern taxation systems, making the tax regressive instead of progressive.[14]

The Diamond Area Community Development Fund

The Diamond Area Community Development Fund (DACDF) was established in 2001 as part of a broader reform of the diamond industry following the end of the war. Of the three per cent export tax, one quarter is returned to diamond mining communities. In 2001 the amount returned to these communities was US$195,165; in 2002 it was US$312,988; and in 2003 it was $569,000. In 2004 it is expected to reach $900,000, The purpose of the fund is to give mining communities a stake in ensuring that diamonds mined in their areas are exported legally, and to return some of the proceeds to the community as a whole. The amount is tied to the number of diamond licences issued in a given Chiefdom and to the value of diamonds mined. The DACDF is normally managed by a Chiefdom Development Committee (CDC) reflecting all sectors of the community: youth, women, elders and the Paramount Chief.

The government states that the fund:

> ...IF FAIRLY DISTRIBUTED AND WISELY UTILIZED COULD BE USED TO FUND COMMUNITY DEVELOPMENT PROJECTS SUCH AS, ROAD/BRIDGE CONSTRUCTION AND MAINTENANCE, SMALL SCALE ELECTRICITY SUPPLY, CONSTRUCTION AND MAINTENANCE OF COMMUNITY CENTRES, SCHOLARSHIPS FUNDS TO DESERVING STUDENTS THAT COME FROM THE DIAMOND REGIONS, PROVISION OF CLEAN WATER SUPPLY, PROVISION AND IMPROVEMENT OF HEALTH FACILITIES AND TRANSPORT AND COMMUNICATIONS.

The impact of the DACDF has been mixed, although the new levels of remittance to mining chiefdoms is revolutionary.[15] Positive uses of the fund have been documented (e.g. the construction of a multi-purpose community complex in the Lower Bambara Chiefdom of Kenema District). There are also cases where serious friction has developed over who will manage the fund at the local level, where projects should be located and what type of projects should be implemented. CDC members are hand picked by Chiefs, who therefore have tremendous influence over them. Some Chiefdoms, particularly in urban settlements, have failed to properly account for the money received.

A bill before parliament in the latter half of 2004 was expected to allocate 20 per cent of the DACDF funds to the hitherto largely unfunded district councils in the diamond areas, something that would give them, too, a stake in legitimate and licensed mining.

A Mineral Sector Monitoring Unit

In 1996 the Ministry of Mineral Resources established a mineral sector monitoring unit, responsible for all mining, including diamonds. The aim is to ensure that all mining is licensed, that laws and regulations such as those relating to the environment and child labour are observed, and that diamonds are not smuggled out of the country. Mines Monitoring Officers (MMOs) monitor and evaluate the performance of diamond diggers, licence holders, dealers and exporters regarding the buying and selling of diamonds, licensing and adherence to all legislation and regulations pertaining to the industry.

The monitoring system appears to be largely ineffective, as reflected in the large estimates of smuggling and the continuing violation of regulations. The major problem is that the government has little capacity to support the monitoring system. MMOs are required to travel to mines for monitoring purposes, many of which are far from the towns where they reside, but few have transportation. Although USAID provided MMOs in Kono District with 10 motorcycles in 2004, these had to be shared among 60 men who, in that district alone, were responsible for regulating 1100 licences, 60 trading offices, and one kimberlite mining company. MMOs are not classified as civil servants and receive no civil service benefits. Their annual salary is US$511 or approximately US$43 per month, and no other benefits. This represents less than $2 a day and is a quarter of what the average NGO worker in the diamond districts earns. The low salary and inadequate support, combined with the task of monitoring the flow of millions of dollars worth of diamonds, sets them up as targets, both for bribes and for failure.

Child miners

There are also Mine Wardens in all diamond regions. Unlike MMOs, they are government employees. Mine Wardens survey and demarcate mining plots and are involved in the licence application process, primarily by recommending licence applicants to Chiefdom Committees. On the advice of the Committees, the Ministry of Mineral Resources then issues licences through the resident Mines Warden. Mine Wardens also have the power to arrest and, through the office of the Attorney General and the Ministry of Justice, to help prosecute illicit miners and dealers.

The Chiefdom Committees play an important role in the artisanal diamond sector. They are charged with the responsibility of supervising all mining activities in the Chiefdom. The responsibilities of these committees include the identification of diamond plots, overseeing the acquisition of licences and extraction of diamonds as well as overseeing the buying and selling of diamonds. The Paramount Chief chairs the Committee.

Rewards

As part of the monitoring policy, mine monitors and others are offered a reward for information leading to the successful prosecution of smugglers. The reward is 40 per cent of the value of any diamonds confiscated. There have been few recent claimants, however, suggesting that smugglers have become more sophisticated, or that smuggling has decreased considerably. Both may well be true. Certainly there have been huge increases in the official (i.e. legal) export of diamonds in the past three years, and the average carat value of diamonds also increased during 2004, which means that more valuable stones are now being exported legally. In one well-known case, however, MMOs in Kenema have been waiting for their reward for two years, a demonstration to others that virtue itself is its only reward. Examples like this work directly against honesty among MMOs.

THE REALITY: POVERTY DIAMONDS

The Sierra Leone diamond economy can be thought of as a "casino economy" for many of the people who work in it. This is particularly true for diggers and licence holders. Most are gambling on finding a large diamond. In fact, both diggers and licence holders refer to the money they earn as "winnings" rather than salaries or profits, and the diggers appear to prefer a system of payment in which they receive little or no wages, but share in the value of the diamonds they mine.

MINERS/DIGGERS

The individuals who mine diamonds are unskilled labourers working, in most cases, with nothing more than a shovel or a sieve. Diggers normally work six days a week from 8:00 am until 5:00 pm, with a 30 minute lunch break. There are several methods by which diggers are paid, all decided by the licence holder who hires them.

Casino System: Interviews for this report found that licence holders who prefer this system normally pay diggers between Le1000 and Le1500 (US 39-59 cents) per day and provide them with two cups of rice each day for lunch. The diggers on a given plot will also collectively share 30 per cent of the value of any diamonds mined. If 50 diggers work on a plot, each would receive 1/50th of 30 per cent of the value of the diamonds produced. Or the share may be decided arbitrarily by the gang leader. Diggers working under this system are gamblers. They work for very little money and bet on both a high return and an honest licence holder.

Pay Per Win System: In some cases, diggers will negotiate the price of the diamonds they find, although this requires some knowledge of diamond values, which few have in any great detail.

Daily Wage: Licence holders who employ diggers under this kind of arrangement usually pay a daily wage of approximately Le5000 (US$2) per day, plus some rice for lunch. For a 25-day working month a digger would earn about US$50.00. Diggers receive no share in the diamond proceeds. Under this system, diggers are more likely to steal diamonds, as they have no stake in what they turn in.

Pile System: There are variations, but generally all diamond-bearing earth and gravel is separated into three piles, each "belonging" to one of three groups involved in the operation: diggers, the licence holder and their supporter. Any diamonds found belong to the person in whose pile they are found.

Although there are variations, and several systems may work at once, even at the same site, historically, most diggers have preferred the casino system, "betting" on a share of the "winnings". Being a digger, however, is not entirely a gamble. Monitoring the diggers is difficult and many undoubtedly steal diamonds and sell them independently if they can.

The Peace Diamond Alliance (PDA) is a USAID-funded initiative, registered in Sierra Leone as a community-based organization. In 2003, the PDA gathered data on what diggers earn.[16] Researching three plots and 89 diggers in some depth, they calculated that each one earned between Le3152 (US$1.24) and Le3705 (US$1.46) per day, based on the casino system. Monthly pay is difficult to calculate because not every digger works full time. If one assumes an average working month of 20 days, the monthly pay for these men would be between $25 and $30, considerably less than Sierra Leone's minimum wage of Le100,000 (US$40). The PDA concluded, however, that the imposition of a statutory minimum wage for diggers would "place an extreme burden on mine owners". PDA has the following elements in its Code of Conduct, regarding Conditions of Service for diggers:

- In a casino system, diggers should receive three cups of rice per day plus Le700 (US 27 cents) or Le1500 (US 59 cents). The diggers' share of diamond revenue should be 30 per cent;
- In a contract mining situation, pay should be at least Le5000 (US$1.97) per worker per day plus lunch;
- First-aid and medical treatment should be provided for all mine-related injuries and sickness;
- Housing should be provided at the mine site.

While not exactly a bonanza, these provisions, if applied, would represent a significant change for most diggers.

The figures above provide the basis for a calculation of the number of diggers in Sierra Leone in 2003. Assuming each

ILLICIT MINING: A CASE STUDY

IN THE PROCESS OF RESEARCHING THIS PAPER, A MINE WAS VISITED IN A RURAL AREA CLOSE TO KOIDU. THERE WERE TEN MINERS WASHING TAILINGS IN A RIVER. THE TAILINGS WERE FROM AN AREA THAT HAD PREVIOUSLY BEEN MINED BY REVOLUTIONARY UNITED FRONT REBELS. THE MINERS WERE ALL FROM A NEARBY VILLAGE. WHEN ASKED FOR AN INTRODUCTION TO THE LICENCE HOLDER, THERE WAS SILENCE AND NERVOUS GLANCES. THE QUESTION WAS REPEATED SEVERAL TIMES AND THEN ONE OF THE MINERS SAID THERE WAS NO LICENCE HOLDER AND NO LICENCE FOR THEIR ACTIVITY. THE MINING WAS A COMMUNAL VILLAGE ACTIVITY THAT HAD BEEN GOING ON FOR 18 MONTHS. THE MEN SAID THEY HAD FOUND NO DIAMONDS DURING THAT PERIOD. WHEN ASKED IF A MINES MONITORING OFFICER (MMO) HAD BEEN AROUND TO CHECK FOR A LICENCE, THEY REPLIED THAT ONE CAME AROUND EVERY WEEK OR TWO BUT THAT THEY HAD NO PROBLEMS WITH HIM, AND THEY HAD NEVER PAID ANY FINES OR BRIBES. IT WAS LATER EXPLAINED THAT IN SUCH CASES, THE VILLAGE CHIEF WOULD OFTEN PROVIDE THE MMO WITH LAND FOR A FARM.

TRYING TO MINE IN SIERRA LEONE

THE LEGAL WAY

1. Raise funds for licence
2. Identify land to be mined
3. Obtain application form
4. Submit application to town chief
5. Chief recommends application to Chiefdom Mining Committee (CMC)
6. CMC approves application
7. Applicant pays surface fees and chiefdom development fund fees to CMC
8. Miner takes receipt to Ministry mines warden to make application
9. Mines warden and miner go to site to mark boundaries
10. A plan is drawn of the site
11. Plan is approved by Paramount Chief and town
12. Mines engineer signs plan
13. Miner pays government fees and gets licence
14. Miner finds supporter
15. Miner arranges diggers, tools and other logistics
16. Miner starts mining
17. Miner sells diamonds to supporter/dealer

At each step in this process, bribes may be required.

THE ILLICIT WAY

1. Consult local area or village chief
2. Find a supporter for up-front costs
3. Find diggers
4. Commence mining
5. Sell diamonds to supporter/dealer

digger averaged $360 a year in diamond income ($30 a month), based on total exports of $76 million, the number of diggers would have been about 63,000. If the official export figure represented half of the actual mining (the rest being smuggled out), the number would be more like 120,000 diggers. (This number would change with every change in assumption made about the average digger's work-year and earnings.[17])

By far the majority of the diggers are Sierra Leoneans, many of whom have migrated to the diamond fields from other parts of the country. Although life is tough and risky for diggers, there is no difficulty in attracting them because of the lack of other viable economic alternatives, and because diamonds in Sierra Leone – as elsewhere in the world – are commonly associated with the possibility of striking it rich.

Digging diamonds is hard work and therefore it is a vocation for relatively young men. Many diggers, particularly single men, view mining diamonds as a full-time job. During visits to mines in connection with this report, the only women observed were those who cooked and brought food to the miners. Women are known, however, to work in all aspects of diamond mining, from digging and washing gravel, to acting as supporters and licence holders. There were very few diggers who appeared to be less than 17 or 18 years of age. Informants said, however, that mines less accessible to MMOs employ more children. One licence holder said that his mine had been closed for a week because he had children working. This suggests that where MMOs have access, regulations are being enforced.

A 2002 study by World Vision surveyed 500 child miners in Kono District and noted that the children "usually got involved in mining at an early age; initially on a part-time basis, but they eventually became fully engrossed into it, thereby interfering with their education or any other option that promises a better future." There were, the report noted, "those who were doing well in school but had to abandon their educational pursuit to follow their peers who transiently became rich and admirable." Eighty three per cent of those surveyed said they were directly involved in mining activities, and 8.6 per cent said they "went to the mining sites to prepare food for the miners but they spent all the day at the mining sites." Seventy-five per cent of those surveyed said they chose mining all on their own "to get money," while 15.2 per cent claimed they were engaged in mining because they had no alternative. A further 6.2 per cent claimed they were influenced into joining by their friends, and four per cent said they were sent into mining by their parents.

In addition to hard work, the life of a diamond digger is one of exploitation. Written contracts and terms and conditions of work are non-existent, child labour laws are not enforced, health and safety regulations are either non existent or are ignored. Miners have no "right" to negotiate payment or conditions of work. The United Mines Workers Union has traditionally shied away from the artisanal diamond sector, but is presently making some interventions, and has registered approximately 500 diggers. It remains to be seen whether it will be able to develop the kind of influence that would be required to change the prevailing situation.

LICENCE HOLDERS

Licence holders — those who organize and manage the mining of diamonds — apply through traditional authorities to the government for a mining licence. The process of obtaining a licence is long and expensive, requiring a series of bribes along the way. It was stated in one interview that the "real" cost of a licence is easily three times the official government fee.

Many licence holders do not have the money to purchase a licence. They receive up-front funds — a loan — from individuals known as "supporters". Supporters often provide funding for the licence fee, labour, equipment and any other operating costs. Licence holders manage the diamond plot, supervise the mining and pay the diggers. In return they generally receive one-third of the value of diamonds. They sell to dealers who are normally businessmen or women in surrounding communities. In most cases the dealer is also the supporter. The licence holder is in a vulnerable position for several reasons. Most have little knowledge of the value of rough diamonds. The supporter dictates the price, and deducts from it any up-front loans. This system guarantees that there will be no serious competition, and few situations where a licence holder can sell diamonds to the highest bidder. It also encourages licence holders to sell their diamonds secretly to unlicensed itinerant dealers who may be prepared to offer a higher price and who will likely smuggle the diamonds out of the country.

In December 2002, there were 1,272 valid artisanal mining licences. By June 2004, the number had risen dramatically to 2,318. The official cost of a licence is US$253. Only Sierra Leoneans may hold licences, however it is not uncommon for citizens to hold licences as proxies for non-citizens.

SUPPORTERS AND DEALERS

"Supporters" are the financial backers for most artisanal diamond mining. They are generally businessmen living in the diamond areas, and by far the majority are also dealers, or diamond buyers and sellers. For example, in Kenema District, Ministry officials report there are no supporters who are not also diamond dealers. There are no legal agreements defining the conditions of a supporter's investment, however the licence holder has an informal obligation to sell his diamonds to his supporter.

The majority of dealers are resident in the diamond cities of Bo, Kenema and Koidu. Dealers buy diamonds from licence holders and sell to exporters. In mid-2004 there were 135 diamond dealers licensed in Sierra Leone. Most were "foreign nationals", a vague distinction in Sierra Leone, where there are thousands of second and third generation Lebanese families, many engaged in the diamond business and many with Sierra Leonean citizenship. For example in August 2003 in Kenema Town there were 66 dealers. Of this number six were what is called "indigenous citizens". Others were from neighbouring ECOWAS countries, especially Guinea, Senegal, Mali and Ghana. A very large proportion was of Lebanese extraction. Most own retail businesses and use those premises to conduct their diamond business. It is not too strong to say that the Lebanese community in Sierra Leone controls a large part of the diamond business.[18]

Dealers' licence fees vary in cost depending on citizenship. As of 2004, citizens of Sierra Leone pay US$1900, ECOWAS citizens pay US$2400 and other non-citizens pay US$4000. In 2002-2003 there were 131 licensed diamond dealers in Sierra Leone. Of these, 93 were "citizens" (although not necessarily native Sierra Leoneans), 18 were non-citizens and 20 were ECOWAS nationals. The dealers also have "agents" working for them. Their job is to purchase diamonds at mine sites on behalf of the dealers. The agents pay a licence fee of $800 and by law no dealer can have more than five agents working for him. With 131 dealers in operation, there could be as many as 655 agents in the field.

DIGGERS WORKING UNDER THIS SYSTEM ARE GAMBLERS. THEY WORK FOR VERY LITTLE MONEY AND BET ON BOTH A HIGH RETURN AND AN HONEST LICENCE HOLDER.

A diamond dealer is the classic middleman, and is well placed to exploit those below him in the mining chain. Dealers represent the first real expertise in valuation in the diamond chain, allowing them to pay grossly undervalued prices for the gems, while in turn demanding a reasonable market price from the exporter. And because dealers are usually also "supporters", they have an additional grip on the holder of the mining licence.

The prize

EXPORTERS

The 2003 Annual Report published by the Government Gold and Diamond Office (GGDO) lists 43 licensed exporters. Of the 43, five are described as "foreign nationals". These five foreign nationals accounted for 74 per cent of all diamonds officially exported from Sierra Leone in 2003 at a value of US$56.2 million. The 38 other exporters, classified as "indigenous citizens", exported the remaining 26 per cent, with a total value of US$19.7 million. This demonstrates the economic power of a handful of foreign nationals.

In both 2002 and 2003 the GGDO issued two types of export licence, one for a higher fee to foreign nationals and one with a lower fee for indigenous citizens. However, the GGDO admits what is common knowledge in Sierra Leone, that some Sierra Leoneans have abused the policy by acting as fronts for foreign nationals who in reality held the licence. While the GGDO states that, "…this was tantamount to defrauding the state and could rob the genuine citizens of the opportunity of participation…" there have been no prosecutions for this. In 2004, the export licence fee was changed to a flat rate for everyone (US$40,000).* As noted above, however, foreign nationals receive a 0.5 per cent tax break on exports of more than $10 million, a rate which applies to exports of more than $1 million by indigenous citizens.

THE ENVIRONMENTAL CONSEQUENCES OF THE FREE-FOR-ALL

The 2004 *Sierra Leone Annual Diamond Review* calls diamond mining in Sierra Leone an "Environmentalist's Nightmare".[19] For small scale and industrial licences, the Mines and Minerals Act of 1994 states:

> In deciding whether or not to grant a mineral right, the Minister of Mines shall take into account the need to conserve the natural resources in, or the land over which the mineral right is sought, or in the neighbourhood land. The Minister shall require environmental impact assessments as prescribed as a condition for granting a mining lease except in the case of leases for building and industrial minerals.

More recent policy is found in the 2003 Core Mineral Policy, which is more explicit. The problem is implementation, however, especially in the case of artisanal miners whose operations, although small, are often chaotic. By law, the size of an artisanal mining plot cannot exceed 210 feet by 210 feet. In fact, mines often comprise a number of plots, which can cover as much as 5 and even 25 acres. These pose a substantial challenge where the environment is concerned. Government regulations do stipulate that an artisanal mining licence holder must pay approximately US$50 per year for environmental rehabilitation, but this amount is obviously too small to be meaningful and the funds derived from this part of the licence fee are largely inaccessible.

The government's new Core Mineral Policy aims to improve public knowledge of the environmental consequences of mining. It aims to improve, monitor and enforce laws and regulations on the closure, reclamation and rehabilitation of mines, and it aims to enforce the requirements for environmental impact assessments. Most importantly, it aims to strengthen the Environmental Monitoring Unit at the Ministry of Mineral Resources. These are excellent intentions; the proof of their usefulness will lie in the effectiveness of their application. The major difficulty is not with the policies and regulations, it is with the lack of capacity and resources of the government to force compliance.

** Ten of the 43 exporters in 2003 had exports that were less than the cost of the 2004 export licence. As a result, many licences were not renewed.*

CASE STUDY: ANGOLA

INTRODUCTION

PRIOR TO 2004 AND THE FORCED EXPULSION OF CONGOLESE MINERS, UP TO 400,000 ARTISANAL MINERS WORKED IN ANGOLA, PRODUCING OVER ONE THIRD OF THE COUNTRY'S OFFICIAL DIAMOND OUTPUT. IN THE PROCESS, LOCAL POPULATIONS HAVE BEEN MARGINALIZED, EXCLUDED FROM MINING IN THEIR OWN AREAS, BENEFITING LITTLE FROM THE DIAMONDS MINED. LICENSING AND OTHER REGULATIONS EXIST BUT IN PRACTICE THEY ARE UNENFORCEABLE OR SIMPLY IGNORED. THE STRUCTURE OF THE DIAMOND PIPELINE FROM MINE TO EXPORT, AND THE WAY IT IS SUPPORTED BY BUYERS, HAS CREATED A PARALLEL, HIGHLY EXPLOITATIVE AND SKEWED ECONOMY IN DIAMOND MINING AREAS.

A *garimpeiro* — a small-scale or artisanal diamond miner; literally, a prospector — is someone who searches for diamonds outside the formal sector. Artisan or *garimpeiro* mining was not the chief source of Angolan diamond production until the beginning of the 1990s. In practice, much of the artisanal production in Angola today is not actually artisanal; it is semi-industrial, carried out using small boats and diving equipment.

At present, this sector produces just over one third of Angola's official diamond output. ASCorp, Angola's monopoly diamond buying company (until it was replaced in 2004 by the state-owned SODIAM) bought diamonds worth $252 million from this sector in 2003. *Garimpo* mining has also been the vector for diamond smuggling. There are no current estimates of this, but diamond market sources believe that Angola has been producing in the region of US $1 billion per year since the mid 1990s. This figure is likely declining because of the exhaustion of alluvial reserves due to years of uncontrolled digging. It will fall even further if the government is not able to control the sector.

This form of uncontrolled mining expanded because of the destruction and closure of the formal sector due to war, a loss of the mining areas to UNITA — which brought in many of the illegal miners to work in their own mines — and to the government's inability to enforce administrative controls in its own areas. Several attempts have been made to push out illegal miners and buyers — Operations Cancer I, II and III were attempts in 1995-6 — but the miners returned.

Although *garimpeiro* activities existed in the 1980s, illicit mining was on a very much smaller scale, probably worth less than $100 million a year, including UNITA's smuggling. 1991 saw the beginning of large scale activities. That year, artisanal mining and the possession of diamonds by Angolan nationals was legalised. As a result, there was a major influx of at least 50,000 illegal miners into the Lunda diamond provinces, with about $500 million worth of Angolan diamonds flooding the open markets.

Under the old law, which is to be changed by the end of 2004, there is a framework for artisanal mining under licence in special protected zones, allowing access to deposits that are not commercially viable for industrial-scale companies. Licences are awarded by the state diamond company, Endiama. Mining companies are legally responsible for "policing" the artisans who work on the edge of their concessions, and for moving illegal miners out of their concession areas. If captured, they are handed over to the National Police.

In principle, only local residents who have lived in the diamond areas for five years have the right to become artisanal miners. A licence gives them the right to work in groups of up to five people, although only a tiny proportion of the *garimpeiros* in Angola are actually licensed. Because of the war, UNITA's large-scale smuggling operations, and the presence in some remote areas of Angolan nationals with no identity papers, these provisions have remained largely unenforceable, even today.

This legal schematic will remain the basis of artisanal mining under the new law, with miners working on the edge of company concessions. There are other areas in Angola which will always be uneconomic for companies to mine and these may well be liberalized for artisanal mining as well. However, it is envisaged that there will be only small numbers of licensed artisanal miners, and that some will be employed by mining companies. As of mid 2004, SODIAM said that it was buying approximately $10 million from *garimpeiros* and that this was expected to double when regional buying centres were opened, although the details of purchasing arrangements remain unclear.

UNITA'S IMPACT

UNITA's operations had the most decisive effect in increasing illegal mining and smuggling in Angola. UNITA's seizure of the diamond fields in late 1992 brought the single largest influx of illicit miners into Angola. By the mid 1990s there were about 300,000 miners, including dependants, in the Cuango region alone, as UNITA expanded its mining operations. The local Tsokwé people were largely excluded from UNITA's mining, which was operated by Belgian and South African businessmen using the Congolese workforce. The mining operations were a mixture of artisanal digging on an enormous scale – one very profitable UNITA mine had 37,000 diggers – semi-industrial digging and diving, and industrial operations using captured mining equipment.

MORE THAN HALF OF ALL THE DIAMONDS MINED IN ANGOLA IN THE LAST TWELVE YEARS HAVE BEEN SMUGGLED OUT – WORTH A TOTAL OF PERHAPS $5 BILLION.

UNITA controlled the borders; miners entered only by buying a licence from UNITA for a pass, called "*o guia*", which permitted travel to work in a named mine. Although about 15,000 miners left in 1997, the majority stayed, working for UNITA on other mines across the centre and south of Angola, or remaining to mine in the Cuango. This situation continued until the end of the war in 2002. Their affiliations and the effects on local villages of UNITA's occupation of the area may go some way to explaining the bad feeling that has been demonstrated against the Congolese.

To finance its military operations, UNITA ran the world's largest organised diamond smuggling operation until the war ended. In July 1998, the United Nations Security Council placed an embargo on the import into markets of any diamonds exported from Angola without a certificate of origin. Although aimed at cutting UNITA's financial lifelines, the embargo also placed requirements on the government to control diamond smuggling and tighten up its certificate of origin system. In government-controlled areas in the eastern Lundas, the situation was and remains somewhat different, with foreign miners more integrated into local structures. There were, and are, Angolan artisanal miners in these regions, a small proportion with mining licences issued by the government. Congolese miners work in these areas as well, but as foreign nationals they cannot get licences except in partnership with Angolans.

LAND USE AND ACCESS: SPECIAL REGIMES FOR THE LUNDAS

The right to inhabit, and the movement of people and goods through the Lunda Provinces and other mining regions are governed at present by both the Diamond Law and by Law 17/94 – the Special Regime for the Diamondiferous Mineral Reserve Zones. In principle, this prevents migration into the region and recognizes the rights of existing populations. There are three types of zone:

- *Restricted Zones* are active mining areas to which there are no rights of access and no rights of passage. Neither people nor goods may enter these zones without permission of the concession holder;

- *Protected Zones* are mining concessions and exclude any rights of entry or residence, unless part of the area is identified as an artisanal mining zone. Rights of transit on established roads exist; merchandise – though not diamonds – can circulate;
- R*eserve Zones* are those areas where diamond deposits have been identified as suitable for prospecting or development on an industrial scale. All mineral and mining rights are reserved to the state until awarded to a licence holder. The law restricts entry, movement, residence and economic activities other than subsistence agriculture.

The reserve zones are governed by law 17/94, and include all the territories of Lunda Norte and Lunda Sul which are not either restricted or protected zones. Entry to the Lundas is, in principle, prohibited without what is, effectively, a visa. Only those Angolan nationals who had lived in these regions for five years or more had an automatic right to continue; others were expected to make a case, based on their activities. While subsistence farming and fishing is allowed, all other forms of economic activity have to be authorised by the provincial governor. These regulations have, for all intents and purposes, been unenforceable.

Digging by the local population is illegal without a permit in areas identified as artisanal zones. This law has, as with many others, been completely ignored. It has been unenforceable except in those few areas where formal mining has continued or restarted, and where illegal miners have been moved out by security forces.

Local populations may be compulsorily relocated, with compensation. They must, in principle, be re-housed by the concession holder at the same standard, and all social community infrastructures, including schools and water supply must be provided at the same level. The governor of the province must approve any proposed relocation.

Any discussion of how diamond mining interferes with local people's access to land and its use for other purposes than mining is complicated by the fact that the diamond provinces were effectively a war zone between 1992 and 2002. Many villages were abandoned as people fled to the slightly safer towns; attacks on communities, on roads, the laying of landmines and blowing up of bridges in an area which has many rivers all contributed to the disruption of the region. Add to that the effects of UNITA's military occupation of many areas, and a heavy FAA presence in others, plus an army of illegal miners, and any pattern of normal rights to land and its use has evaporated.

Diving platform on an Angolan river

At the time of writing, there were only eight industrial scale mining projects operating (but many others were on the cards), and all of these had been mining the same concessions for several years. Other concessions were suspended or delayed by *force majeure* in 1998 and are currently in the process of restarting. The principal concentration is on prospecting kimberlite pipes, given the historical stripping of the alluvial reserves; industrial scale alluvial mining is now seen as a short term venture.

The effects of illicit artisanal mining has been to destroy large areas of Angola's alluvial and eluvial deposits (diamond deposits in gravels in and around river systems) which would have been better suited to industrial scale mining, and which would have provided income for the country as well as local employment. Large areas of the diamond fields are now depleted and alluvial deposits are close to exhaustion. Some geologists in Angola believe that many have as little as three to five years of life left in them.

More than half of all the diamonds mined in Angola in the last twelve years have been smuggled out – worth a total of perhaps $5 billion. The smuggling funded UNITA's war and led to the destruction of infrastructure and the further impoverishment of displaced peoples. It also led to the ruin of a resource that could – at least in theory – have been an engine for longer term development.

THE SITUATION TODAY

A UN Expert Panel noted that "Crucial to the cross-border trade in Angolan diamonds is a group known as the Bana-Lunda, young men whose family and kinship ties extend across both countries and who seek their fortune in the diamond fields of Angola, in the absence of employment in the Democratic Republic of the Congo."[20] The Lunda and other Congolese groupings in Angola share a common ethnic background with Angolans in the north and east of the country, but the Congolese miners are perhaps more driven by entrepreneurial spirit and a capacity for self-organization. And they did not inherit the Angolan history of exclusion from diamond mining, which has meant that Angolan *garimpeiros* have acquired fewer skills in both mining diamonds and trading them.

Since colonial days, the governments of Angola, Sierra Leone, the DRC and others have sought to drive illicit diamond miners away from diamond areas by force, usually with little lasting success. The latest effort of this type has been the forced expulsion of Congolese miners from Angola, beginning in December 2003. Accompanied by considerable brutality, Operation *Brilhiante* had expelled as many as 120,000 Congolese and 3,500 West Africans by mid 2004.

Cafunfo, in the Cuango, has had the largest numbers of *garimpeiros* and is the single most productive area for *garimpo* mining; many of UNITA's diggers remained in this area, working for themselves. The area became a major source of ASCorp's purchases until it was replaced by SODIAM in 2004. Miners in Cafunfo were not expelled, however tensions in the area, as the result of police and army operations in February 2004, led to the deaths of up to 16 civilians at the hands of the police, and the arrest of at least another 64. The incident occurred when the town's two diesel-powered generators were seized by the police, allegedly to be repaired. Locals feared that the generators, the town's only source of electricity, had been sold, and they protested. (The generators belonged to Endiama, had been captured by UNITA in 1992 and remained in the town).[21]

From Cafunfo, and south to Luzamba 50 km away, there were (as of April 2004) approximately 70,000 illegal miners working on semi-industrial mining operations, diving for diamonds in river beds, creating small river diversions and dikes, and pumping these out. Deposits in terraces are largely exhausted though years of large-scale illegal mining. Sophisticated equipment, including diving suits, pumps and dinghies is being used. Illicit miners are said to have been moved from the southern areas of the Cuango valley, around Za-Muteba, previously a UNITA mining site. Artisanal mining continues in other areas previously mined under UNITA control, but no estimates of numbers are available.

MOTIVATION

UNICEF estimates that 70 per cent of Angola's population is under 24, and that 30 per cent of children between the ages of 5 and 14 years work.[22] Interviews for this report carried out in Lunda Sul suggest that because diamond extraction is dangerous and hard, it is difficult for children to participate directly in mining. Many operations use children mainly for support jobs, such as carrying meals for miners. In some areas, however, children are active in almost every aspect of diamond extraction activity, except diving.

Child labour has some of its origins in the war when children were forcibly recruited as both soldiers and diamond diggers. The preference for children resides in the fact that children are less likely to steal and are easier to control. In today's mining areas, fear, insecurity and sexual abuse are constant. Today's child miners are thus a direct result of war, poverty and the absence of education; there are few schools in the diamond regions and even the existing ones were destroyed during the many decades of war.

Interviews were conducted for this report with 178 *garimpeiros* in Lunda Norte. While the sample is small and more work needs to be done on numbers, the findings are instructive. Ninety per cent of the diggers were under 35, and almost half were under 16. There was also a significant proportion of women in artisanal mining until child-bearing age.

DISTRIBUTION OF GARIMPEIROS IN LUNDA NORTE BY AGE AND SEX

	Gender		
Age	Male	Female	Total
5-16	49%	41%	46%
17 –25	21%	10%	17%
25-35	20%	20%	26%
35-45	6%	9%	7%
> 45	4%	4%	4%
Total	**100%**	**100%**	**100%**

The interviews provide additional insights:

- *Family income:* 85 per cent of families derive less than five per cent of their income from mining. Among the various other income sources reported, the following stand out: agriculture (29 per cent), informal trade (21 per cent), small businesses and other alternative sources (each 12.5 per cent);
- *Hours spent mining:* Overall, miners who devote more than 6 hours a day to mining activities constitute the majority (more than 60 per cent);
- *Work hazards:* 86 per cent of the miners said that the main work hazard is the collapse of pits (cave-ins);
- *Ethnicity:* 93 per cent said that ethnicity has no influence on the composition of the work force. Fewer than 10 per cent of those surveyed were natives of the region where they were digging;
- *Reasons for operating illegally:* Although three quarters of the mining sites were leased and licensed, most of the miners at work on them were not. Constraints to legal behaviour include cost (of licences, bribes), problems in dealing with government officials and problems related to legal residence status;
- *Buying and Selling Process:* The miner is simply a digger and does not generally know the true value of a diamond. Diggers may arrange to have someone "in the know" help look after their interests, but buyers have an effective monopoly and control prices. Cheating is rampant. A common split between the leaseholder, *patrocinador* (sponsor or middleman) and digger is 25-25-50 respectively, but with prices determined almost exclusively between the leaseholder and the *patrocinador*, the digger almost always gets the short end of the stick.

Diamond mining offers a potential escape from poverty, unemployment and subsistence farming, whatever the miner's origin or affliation. All search for the big stone that will make their fortune, but this form of mining is, in reality, a form of semi-slavery – whether the miners dig pits or dive off rickety platforms and rubber dinghies into the rivers. If they are lucky, or if their patrons are well capitalized, they will have proper diving equipment. Otherwise an air hose is all they have as they dive to find potholes – "jewel-boxes" – in the rocky river beds that might contain diamonds. Or just a handful of gravel.

There are only two ways to win diamonds from river beds – by using divers and by building river diversions and dikes at the edge of the rivers, pumping out the water and using either manual labour or dredges to dig out the diamond bearing gravels. The divers are called "*plongeurs*" and have the highest status among the miners; their equipment usually belongs to the "*patrocinador*". "*Mwetistes*" keep the dinghy or diving platform in place and help the divers bring the bags of gravel on board. On the lowest rung of the social ladder is the "*lavador*", who sifts the gravels to separate out the diamonds. Women also do this work.

As in Sierra Leone, Angolan miners are in thrall to the "*patrocinador*" system – also known as the "supporter" or middleman system. The *patrocinador* funds the mining and buying operations, provides mining equipment, and sometimes food, medical supplies and other necessities. In return he buys the diamonds, or exchanges goods for diamonds. Through this system miners obtain perhaps five or ten per cent of the value of the diamonds they dig. They may receive $50 for a stone – a price well below market value – and then $40 will be deducted as payment for overpriced equipment and supplies. It is the local equivalent of the company store, ensnaring workers in a permanent debt trap. It is also illegal; under Angolan law, each party – the miner and the patrocinador, should receive 50 per cent of the value of the diamonds.

Given reports of up to 400,000 *garimpeiros* in Angola prior to 2004, this division of money means that of the $252 million of artisanally-produced diamonds bought by ASCorp in 2003, each miner would have received an average annual income of US$351 if the *patrocinador* paid the amounts legally due to them. This would equate to about seven carats mined per digger each year, at the lowest prices offered by middlemen. The calculation assumes that all the diamonds would have been sold through legal channels, although it is likely that smuggling remained high. Angola's gross national income per capita is estimated by the World Bank to be $650 per capita, a number inflated by the country's oil and diamond resources. An estimated 35 per cent of the population lives on less than a dollar a day, roughly the calculation of what the average miner might earn if he was treated fairly. In other words, "fair" prices – rarely actually enjoyed by the miners – would result in a life of absolute poverty.

The Patrocinadores

The *Patrocinadores* come mainly from West Africa – Senegal, Mali, Gambia and Sierra Leone – though there are some Congolese and Angolans amongst them. In Angola, unlike other African countries, there are relatively few Lebanese *patrocinadores*. Both the Senegalese and Gambians are known to operate family networks of buyers and sub-buyers. A larger *patrocinador* will have a turnover of between US$100,000 and US$200,000 per month. Although the *patrocinadores* are legally obliged to sell all their diamonds to the state-owned SODIAM, in practice they seek the highest bidder, and will smuggle diamonds if it is advantageous to do so. It is almost certainly the case that some *patracinadors* never sell through formal channels and are affiliated to foreign companies who provide the capital.

A complex set of relationships operates between the *patrocinadores*, the miners, the Sobas (the traditional authorities or chieftains) and the military generals, in the eastern Lundas, in particular around the Luachimo and Chicapa rivers and their tributaries. Estimates in these areas suggest the presence of at least 70,000 illicit miners in the Lucapa region and a small number – approximately 2,000 – of licensed *garimpeiro* miners.

Control of mining in this region has been split between these three authorities. The generals provide security for the mines; the *patrocinadores* control the miners – on average between one and two thousand men each; and the Sobas allocate men to work in the mines, usually in groups of 250. Sobas may have arrangements with more than one *patrocinador*; the reverse also operates – patrocinadores may work with more than one Soba. Both generals and Sobas receive a percentage from the *patrocinador*.

FAA (army) generals also took control of mines in several ex-UNITA areas; Cafunfo was one such long established area after its recapture from UNITA in 1994. The FAA more recently brought in dredges to mine diamonds in the Bié area, as part of their "social privileges" according to a press statement made by *Endiama*. The generals have reportedly been warned by the President of Angola that they must cease mining activities or face demotion to a much lower level.

The traditional authorities are responsible for identifying those legally entitled to mine diamonds on a small scale: long-term residents of the region with Angolan nationality. The objective is that local people should benefit from this local economic resource, but this has not been the case in practice. For the Sobas, however, the existing system of integrating foreign miners may mean that some of the profits that would otherwise be lost to local peoples do trickle back into the community. Miners have little say in the system; they depend for their livelihood on patronage. The recent expulsion of illicit miners has raised concerns that the FAA may also be taking the opportunity to remove local people as well as Congolese miners, in order to allow mining companies to move into concessions in the newly cleared areas. All rights of residence cease to exist when an area becomes a mining concession, under the present law but villages should be compensated for removal and rehoused by concession holders.

Non-Angolan miners from the DRC and elsewhere have traditionally brought in their families and work as a family unit, or may have married locally, which gives them later rights to citizenship. Such settlement can only operate in areas where language and kinship ties exist across the border, making acceptance easier. As a result, there tend to be many more *garimpeiros* in the border areas. In other areas, where there are no language or kinship links, the miners are easily identified as outsiders, and there can be considerable resentment.

Not all Sobas see diamond mining as beneficial for their communities. The Forum of Traditional Authorities (FAAT), set up in November 2003 to remedy the political isolation of rural chiefs, voiced strong criticism both of the exclusion of Sobas from government decision making and of the effects of what the chairman of FAAT, Mario Katapi, described as the "invasion" of the Lunda regions in recent months by West Africans in search of diamonds. He warned of the possibility of ethnic conflict, particularly in Lunda Sul province[23]. Katapi was asking for more involvement for the Sobas in decision-making relating to rural communities, saying political parties ignored the Sobas' knowledge of rural peoples and denied them a voice in the political process.

FINANCIAL STRUCTURES

Alfred Zack Williams has developed a model for artisanal mining based on the tributor system – the miners; the supporters – *patrocinadores* or middlemen; and merchant capital – the ultimate buyers of the diamonds, who fund the system.[24] In Angola the *patrocinadores* themselves may provide the capital for diamond purchases and may also fund the market, through the official buying system or a smuggling network.

External capital linked to the unregistered importers of goods and merchandise, and to illicit diamond buying, provides an unofficial diamond banking system and a means of moving money into the mining areas – in a complete money laundering chain that is outside the official system. In this system, money is paid into a foreign account and the cash is provided on the ground in the Lundas at a substantial discount – between five and ten percent of the value of the transaction. The cash can then be used to buy diamonds illegally. This is a well established, complete, and untraceable system for illicit diamond buying, operating in several countries, including the DRC. It is also possible to buy dollars on the ground, but probably not in the quantities needed for large scale purchases. Smuggled diamonds may achieve profits for middlemen of 20 per cent over prices in the ASCorp system. Smugglers target better diamonds, do not pay taxes, and trade diamonds for goods at skewed prices.

The overall effect is that artisanal mining operations in the diamond regions have their own parallel, highly exploitative and skewed economy, in which goods and services cost considerably more than in Luanda, regardless of whether diamonds are sold legally or are smuggled out.

EFFECTS ON LOCAL COMMUNITIES

It is clear that artisanal mining brings little economic benefit to local communities and actually helps increase poverty through artificially inflated prices for imported goods. Most of the artisanal mining and much of the trading takes place in systems that largely exclude local people, whose main means of living is subsistence agriculture.

The Lunda provinces are both economically and legally different from the rest of the country. All the social and land use structures in the region have rested on the presence of diamond mining since colonial days, when the Lunda Provinces were run as a "state within a state", with their own police, mining towns and agricultural systems. Before independence, the colonial diamond company, Diamang, controlled access and all economic activity, and policed the diamond province. All the main towns were built as centres for Diamang. Formal diamond mining and its ancillary structures was the principal means of employment.

Responsibility for much of the Diamang infrastructure devolved after independence to the state diamond company, Endiama. Formal mines still have the legal responsibility for maintaining the infrastructure in their concession areas and for social projects – medical posts, literacy and agricultural projects.

Although 10 per cent of the country's diamond taxes are remitted to the Lundas for development purposes – close to US$ 7 million per year since 2000 – this has not trickled down to ground level in any substantive manner, and little state investment has yet been seen in the region's social infrastructure, health services and schools. Local officials have complained about a lack of access to mining data and what they consider insufficient royalty income from the mining ventures. Illiteracy in the rural areas is very high and a generation of adolescents has grown up with no education or training, but with full exposure to the casino economy of illicit mining. These are still mining provinces but their economy has been hijacked.

CASE STUDY: A COMMERCIAL COOPERATIVE – ARTISANAL GOLD MINING IN GUINEA

THERE ARE AN ESTIMATED 100,000 ARTISANAL GOLD MINERS IN THE REPUBLIC OF GUINEA. IN JANUARY 2000 A GOLD MINING COOPERATIVE WAS FORMED BY FIVE GUINEAN MINERS, FOUR WOMEN AND ONE MAN. THEY NAMED IT THE SANIMUSO NGO RURAL GOLD PRODUCERS' COOPERATIVE. IN MADINGO, **SANI** MEANS GOLD AND **MUSO** MEANS LADIES. THE INITIAL MEMBERSHIP OF SANIMUSO WAS 84, BUT BY MID-2004 THE COOPERATIVE HAD GROWN TO MORE THAN 7,000 MEMBERS, 70 TO 80 PER CENT OF WHOM ARE WOMEN. CENTRED IN KOUROUSSA IN EASTERN GUINEA, SANIMUSO QUICKLY RECEIVED THE SUPPORT OF MOST ARTISANAL GOLD MINING VILLAGES IN THE PREFECTURE.

Sanimuso is registered as an NGO and pays an annual registration fee to the prefecture office in Kouroussa. It has a Board of Directors made up of miners and former miners, all but one of whom are women. In each mining village there is a Village Mining Group composed of a president, vice president, mines operations manager, weighing manager, public relations manager/secretary and a Sanimuso gold buyer.

Artisanal gold mining in Guinea

Sanimuso's operations are extremely simple. Members mine wherever they want, as individual entrepreneurs. The only requirement is that they obtain permission from the local Chief, who has authority over community land, and that they pay a small monthly fee to the village, which goes into a community development fund. The miners sell their gold to the cooperative for cash, whenever they want. Some come in daily, some weekly and some wait until they need money. The cooperative has buying agents spread around the prefecture, with salaries based on a percentage of the gold they purchase. The Sanimuso price is pegged to the official price posted by the Central Bank of Guinea. Sanimuso normally sells the gold it purchases to a foreign buyer. Because it is registered as a cooperative, Sanimuso pays no taxes or fees on the income received from the gold. The exporter does pay tax and the miners (theoretically) pay income tax.

Sanimuso's major problem is access to the cash needed to purchase gold from its members. Much of the Project Coordinator's time has been spent finding buyers. Recently, Sanimuso found an American businessman who has contracted to buy all the gold Sanimuso mines. The contract also contains provisions to provide water pumps and other equipment for the cooperative.

Sanimuso is more commercial enterprise than traditional cooperative. Its members pay no fees for membership — although that subject is presently being discussed — and the cooperative provides few services to its members. It operates a very informal credit system for the miners, which it plans on formalizing and expanding. The Board has recently agreed that a levy of one dollar a month will be collected to establish a Sanimuso Miners Bank and other social activities. Sanimuso has also received support from an American NGO, the Institute of Sustainable Mining, which is introducing a new type of sluice that will increase the yields of gold to 90 per cent, from the present 30 per cent.

Sanimuso demonstrates that it is possible in an artisanal structure for miners to be entrepreneurs and to receive just prices for their work. There are no licence holders, no dealers, no supporters and no agents. The miner simply mines and sells gold to the cooperative, which acts as the middleman and guarantor of a fair price.

CASE STUDY: THE DEMOCRATIC REPUBLIC OF THE CONGO

INTRODUCTION

THE DEMOCRATIC REPUBLIC OF THE CONGO (DRC) IS INCREDIBLY RICH IN NATURAL RESOURCES, BUT HISTORICALLY THE CONGOLESE PEOPLE HAVE NOT REAPED MUCH BENEFIT. RATHER, A SMALL NUMBER OF BUSINESSES AND A POLITICAL ELITE HAVE POCKETED PROFITS IN A WAY THAT IS LITTLE SHORT OF GOUGING AND RACKETEERING. AS A RESULT, ORDINARY CONGOLESE – INCLUDING MANY OF THE 700,000 ADULTS AND CHILDREN WORKING AS ARTISANAL DIAMOND MINERS – HAVE HISTORICALLY TURNED TO SMUGGLING AND ILLICIT TRADE IN ORDER TO SURVIVE, ESTABLISHING AN INFORMAL DIAMOND ECONOMY THAT CONTINUES TO THRIVE. GOVERNMENT INITIATIVES, INCLUDING THE CREATION OF A BODY TO SUPPORT ARTISANAL AND SMALL SCALE MINING, AND THE DRAFTING OF A NEW MINING CODE IN 2002, AIM TO BRING THESE MINERS INTO THE FORMAL SECTOR, BUT SO FAR THESE HAVE HAD LITTLE EFFECT. ALTHOUGH THE IMPLEMENTATION OF THE KIMBERLEY PROCESS IN THE DRC HAS PLACED THE DIAMOND INDUSTRY UNDER INTERNATIONAL SCRUTINY, ENSURING INCREASED TRANSPARENCY, THE NEW RULES APPLY MORE TO EXPORTERS THAN THOSE FURTHER BACK ALONG THE PIPELINE, PARTICULARLY ARTISANAL MINERS AND THOSE THEY SELL TO.

Artisanal mining is notoriously hard to control and continues to fuel an informal diamond economy, although to what extent is unclear. Official diamond exports in 2003 from the DRC were valued at $642 million, a 62.5 per cent increase in value over the previous year. While new and independent valuation was partly responsible for the increase, the effective implementation of the Kimberley Process, and the expulsion of Congo-Brazzaville from the Kimberley system in 2004, has brought an increased percentage of diamonds into the formal sector. Nevertheless, it is widely estimated that total diamond production exceeds $1 billion annually, which means that as much as $350 million leaves the country illicitly. The bulk of this is most likely from the artisanal sector.

Until artisanal mining is brought effectively into the formal sector, and regulation and effective oversight is sustained, illicit exploitation of the sector and its workers will continue. A parallel requirement is the need to provide viable employment alternatives. A corollary to this is the urgent need for legitimate foreign investment, but continuing political insecurity remains a major deterrent.

BACKGROUND

Five years of devastating conflict ended in 2003, and a transitional government, tasked with leading the DRC to elections in 2005, presides over an extremely fragile peace. While the international community pumps millions of dollars of aid into the country, the state continues to lose revenue because it lacks effective control over the mining sector. The Centre of Evaluation, Expertise and Certification (CEEC), the autonomous government body set up to implement the Kimberley Process, has made huge and positive inroads in the diamond sector, particularly at the purchasing and export levels, but widespread deficiencies remain in the regulation of the artisanal mining sector.

Diamonds can be found in every province in the DRC, but the main producing areas are in the centre, northeast, and southwest of the country. The quality of diamonds varies greatly among these areas, from mostly industrial in central Mbuji Mayi, averaging $25 per carat, to high quality stones in Tembo, near the Angolan border, worth an average of $200 per carat.

There are two industrial mining companies in DRC – MIBA, a parastatal company established in the 1960s, and Sengamines, set up in 1999 on one of the former MIBA concessions. There are also a number of semi-industrial operations, particularly around Tshikapa. These number fewer than 20 according to government officials.

The vast majority of diamonds are mined artisanally by "creuseurs" or diggers, with little equipment other than shovels, sieves and pointed metal bars.

The DRC's artisanal diamond mining sector is larger than that of any other country in the world. Officials believe that approximately 700,000 artisanal diamond miners produce 80 per cent by value, and 70 per cent by volume, of official diamond exports. The majority of artisanal mining takes place in Kasai Occidental and Kasai Orientale, in central DRC. Despite the huge value of diamond exports, however, life for artisanal miners is desperate. Their pay is bad, they work in poor conditions and they have little physical or financial security.

THE REGULATORY SYSTEM

A new Mining Code was drafted in 2002 with the assistance of the World Bank, aimed at attracting new foreign investors by providing solid legal parameters and rules governing the prospecting, exploration, processing and sale of minerals.[25] The Code contains regulations for the artisanal exploitation of diamonds, including the creation of artisanal mining zones, and it requires artisanal miners' cards for all diggers.

According to the code, artisanal mining can be established within a determined geographical area if it is not feasible for industrial or semi-industrial mining. These areas are designated by an order from the Minister of Mines. An inspector from the provincial office of the Ministry is supposed to visit the proposed site to check that it conforms to the licensing requirements (e.g. that it is not near a road), and then authorizes the licence.

All miners working in the designated zone must hold a valid artisanal miner's card, issued by the head of the provincial mines office. According to the Code, these are issued to "eligible persons who apply for them and undertake to comply with the regulations on protection of the environment, health and safety in the artisanal exploitation areas."[26] Artisanal miners' cards cost approximately $25 and are renewable annually. These cards are only available to Congolese individuals "of age", suggesting that they are not available to children.

The reality is hard to compare to the theory. Not one artisanal miner surveyed for this study had a licence, and the provincial Division of Mines representative in Kasai Orientale stated that of a possible 500,000 artisanal miners working in the province, only 2000-3000 had licences. It was significant that the department responsible for providing these licences and supervising artisanal mining could not give a definite figure on the number of artisanal miners' licences in use. In fact artisanal mining takes place throughout the province, not only in authorised zones. Mines spring up at the side of roads, in fields, and anywhere else people believe there may be diamonds. No official applications are made; young men simply begin to dig holes, some more than ten metres deep.

And despite the Code, areas licensed for artisanal mining are in many cases unsupervised by the provincial division of mines. There is a serious lack of personnel capacity, complicated by inadequate transportation, vast distances and very bad roads. Kasai Orientale has eleven offices throughout the province, with its headquarters in Mbuji Mayi. However, they are unable to supervise the region adequately, even areas close to Mbuji Mayi. Without 4-wheel drive vehicles and staff, they are unable to carry out inspections for licence applications or of actual mining activities, including working conditions, environmental impact or military involvement. There are also problems with communication, particularly over such large distances, although the arrival of mobile telephones has addressed this to some extent.

OFFICIAL ATTEMPTS TO REGULATE THE UNREGULATED – SAESSCAM

In March 2003, the *Service d'Assistance et d'Encadrement du Small Scale Mining* (SAESSCAM) was established by Presidential decree. The main objective of SAESSCAM is to track the flow of minerals, including diamonds, from artisanal and small-scale mines to the point of sale, ensuring that all artisanally mined production is funnelled into the formal sector, removing the ties with smuggling and illicit sales. The aim is to ensure that all diamonds are exported through the CEEC in Kinshasa. SAESSCAM was created following a pilot project in Tshikapa, in central Kasai Occidental Province. The pilot established several artisanal mining cooperatives around Tshikapa, and worked with semi-industrial operations. It has plans for health and road building projects in the area. SAESSCAM aims to organise cooperatives for artisanal miners nationwide, providing training and advice, equipment, and small loans. A SAESSCAM official will be based at each artisanal mine site, and will accompany all goods to be sold, ensuring that the official process is followed, adequate records maintained, and that all goods are sold to registered, official buyers.

SAESSCAM hopes to establish cooperatives with 300-400 miners at each mine. It has recently opened an office in Mbuji Mayi, but currently there is a lack of capacity and funds to get this office up and running. SAESSCAM operates with funds provided by the artisanal miners themselves. Sixteen per cent of the proceeds from licence sales goes to SAESSCAM, and, once the cooperatives are functioning, 15 per cent of the sales of their diamonds will return to this body. While many people point to the creation of cooperatives as a way to improve artisanal mining, the success of SAESSCAM remains to be seen.

CONTRIBUTION OF ARTISANAL MINING TO THE DRC ECONOMY

Money is returned from the diamond industry to the state through licence fees for *comptoirs*, middlemen and diggers, as well as from export taxes. In 2003, diamonds worth $642 million were exported from the DRC through official channels although, as noted above, it is estimated that production may have exceeded $1 billion, the remainder being lost through illicit channels.

Diamond exporters pay a four per cent tax on the value of their diamonds: 1.25 per cent is taken in remuneration tax, 1.5 per cent in exit fees, and 0.25 per cent in exportation fees. A one per cent provincial tax is also supposed to be paid when diamonds are purchased. This one per cent is levied on the declared purchase value rather than the assessment of the country's independent valuators. This tax regime is currently ill-enforced and little revenue is actually returning to the provinces. This problem may stem, in part, from the retention of funds in Kinshasa.

TOTAL OFFICIAL EXPORTS FROM COMPTOIRS IN 2004[27]

Month	Independent Valuation (US$)	Carats	Average price per carat (US$)
January	40,227,296	1,571,642	25.60
February	40,964,452	1,542,892	26.55
March	49,434,660	1,462,982	33.79
April	44,912,367	1,230,625	36.50
May	44,723,844	1,420,794	31.48
June	49,930,208	1,698,727	29.39
July	72,192,017	2,144,547	33.66

In addition to taxes paid, the government charges licence fees for diggers, middlemen or *négociants* and *comptoirs*. This is not effectively enforced in any of the three sectors. Annual licences for *comptoirs* cost $250,000 along with a $50,000 guarantee. The Mining Code stipulates that a fixed number of buyers is allowed on each licence, with additional buyers permitted as an exception. However this provision is being exploited by *comptoirs*, some of which have as many as 50 buyers on their books. Each buyer on a licence may pay as much as $25,000 to the *comptoir*, which in turn is supposed to pay $15,000 to the state for each one. Even if all the additional licence fees were paid, however, the state would receive significantly more if only ten buyers were allowed on each licence, and if this rule was enforced. If all 100,000 estimated diamond *négociants* paid for licences – at $500 each – the state would receive an additional $50 million, and all 700,000 miners' licences would generate a further $17.5 million. On a total artisanal output of approximately $524 million in 2003 and an estimated $584 million in 2004 (not counting what may be smuggled out), these estimated licence revenues are not exorbitant.

Given the improved export records of the past two years, it is possible to make a rough calculation of what the average diamond digger earns in a year. Based on *comptoir* purchases of $524 million in 2003 and a projected $584 million in 2004, 700,000 diggers average somewhere between $730 and $830 each in terms of the value exported. It is unlikely that they see much more than one third to one half of this amount. To it, however, must be added the significant estimates of smuggled diamonds. Even with an allowance for these diamonds, it is hard to see how the average digger could be earning more than about a dollar a day.

The state, therefore, receives a small proportion of its putative tax revenue, and diggers receive heavily discounted prices for what they produce. In addition, diamonds and revenue are lost throughout the pipeline for various reasons. At the level of extraction, as much as 30 per cent may be lost because of poor equipment, which prevents the complete retrieval of stones from the gravels. After extraction, parcels may be sold by members of the team or "uniformed elements", causing as much as 20 per cent of the overall loss. Sellers may not know the value of diamonds, and there is also smuggling by buyers or those working under the protection of influential people – the loss can be enormous at this level.

EXPULSION OF CONGO-BRAZZAVILLE

A demonstration that smuggling from the DRC persists, and that it can be diverted under the right circumstances, is seen in the huge fluctuations in diamond exports from the Republic of Congo (Brazzaville), a country with virtually no diamond production of its own. The expulsion of the Republic of Congo from the Kimberley Process at the start of July 2004 had an immediate impact on diamonds being exported through official channels in the DRC. In July 2003, artisanal diamond exports totalled $48.9 million, while in July 2004 the figure reached over $72 million. A similar increase can be seen between DRC exports in June and July 2004. This represents a major success for the Kimberley Process, although it will be important to ensure that these diamonds continue to flow through official channels.

EFFECTS ON LOCAL COMMUNITIES

No visitor to Mbuji Mayi would ever imagine that hundreds of millions of dollars worth of diamonds have been extracted from the area. The infrastructure is terrible and there is only one paved road in the entire town. Diamond mining communities receive few benefits from the diamonds mined in their areas. Although one quarter of the four per cent export tax is supposed to be paid to the province on all diamond sales, this is not happening. And *négociants* in the diamond mining areas do not re-invest in the community. None of those interviewed for this report is investing in the diamond areas in any meaningful way, although some of the *comptoirs* in Mbuji Mayi claim to be buying medicine and other equipment for local hospitals. Without any visible benefits from the formal diamond economy, artisanal miners and their communities will continue to favour whoever offers the highest price, which may well be within the informal sector.

ARTISANAL MINING – HOW IT WORKS

The artisanal diamond mining industry works in a pyramid system. Approximately 700,000 artisanal miners sell their diamonds to an estimated 100,000 *négociants*, who then sell on to 12 licensed *comptoirs* for export. Vast mark-ups between each level leave artisanal miners at the bottom of this pyramid, earning an average of $1 a day, while *comptoirs* regularly exceed the performance targets set by the Ministry of Mines at $5 million in exports *per month*. Some artisanal miners – better informed about prices through the growing use of mobile phones – have started to sell parcels directly to *comptoirs* in order to achieve the best price. For most, however, this is not possible.

The following description of artisanal mining is based on interviews carried out for this report in diamond mining areas around Mbuji Mayi and in major mining areas in Orientale province. These include Banalia, 128 km from Kisangani, and Bafwasende, whose administrative centre is over 260 km from Kisangani.

In Banalia there are 145 pits, and at the time of the interviews, there were 14,268 diggers, 137 *négociants*, and 711 *fournisseurs* – "suppliers" – selling produce to the diggers. In the dry season, 15,000 to 16,000 diggers work in these pits, although this number halves during the rainy season when work is much more difficult. Seventy per cent of the diggers were 18-40 years old; ten per cent were between ten and eighteen; and 20 per cent were over 40. The under-18s and over-40s do not carry out the hardest tasks. Almost 80 per cent of the inhabitants of Banalia are men.

Of 84 men interviewed for the study in one area, 25 per cent were mining diamonds because there is a lack of alternative work. Almost 37 per cent were hoping to find a big stone – "playing the lottery" – and 32 per cent were mining for "*raisons historiques*" – because that is what they had grown up doing. Five per cent were secondary and university students hoping to raise money during their vacation. Over half of those interviewed derived more than 50 per cent of their family income from diamond mining. Almost 42 per cent said they work full-time, 39 per cent part time and the rest work occasionally or as a supplement to regular work or study. Sixty per cent of the diggers were not from the area, and were there solely to mine.

In all areas visited, the majority of diggers worked in teams rather than as individuals, enabling them to amass more diamonds and to support each other. Teams consisted of two to ten men, each, with a "head" who looks after the diamonds and organizes the work.

There is variation in the method of payment, but the majority of miners are given a percentage of the gravels extracted. Each pit is run by one or more heads, who lead all the diggers working in that pit. The first person to prospect an area becomes the head of the pit by default. In addition to the head, most mining areas have a mine committee – responsible for the running of the mine – which reports to the local customary chief. Committee members say that preventing conflict amongst miners is one of their main tasks. Each pit has a supporter who provides an initial investment for the purchase of equipment needed to start the operation. As in Sierra Leone and Angola, the supporters are often *négociants*. Miners feel obliged to take their parcels to this man, although such arrangements are not formalized.

Rather than any kind of wage, diggers receive a split of the gravel taken out of the pit. Normally, gravels are split between the miners, the head(s) of the pit, the supporter and the local chief. The percentages vary but approximately 40 per cent goes to the diggers, 40 per cent to the head(s), 10 per cent to the local customary chief, and 10 per cent to the supporter. In some cases, if diggers find a large stone in their gravels, they may keep this and are not obliged to share any of the proceeds with the head of the pit.

The miners are not employed officially. There are no contracts, no written conditions of work, and no Congolese labour laws are enforced. Some civil society groups have plans to create unions for artisanal diamond miners but these remain plans. In every pit there are informal syndicates but these are unstable and disorganised, dissolving when a pit closes, and fragmenting as the miners leave.

Those working at the mines have no training or experience qualifying them to work as artisanal miners. The majority are unskilled labourers working with the most basic of tools. Nobody working at the mines has geological experience or any other skills particular to artisanal mining except those learned on the job. For example some people do understand which indicator stones to watch for.

Many are miners because of the lack of alternative employment. Subsistence farming provides a fall-back, but agriculture remains difficult and under-developed. Diamonds provide short-term benefits, enabling a hand-to-mouth existence, but there are no possibilities of long-term saving. Congolese do not trust banks (with their history of collapse and embezzlement), but in any case, no diggers interviewed for this report had been able to save any money from diamond earnings. All say they would rather work for an industrial operation; this would provide them with security, both financial and physical, as well as healthcare. (Sengamines' minimum wage is $160 monthly – five or six times what the average artisanal miner earns.)

Dealers weighing diamonds in the DRC

There are few women working in the artisanal mines. Those present mainly wash gravel, and are not involved in digging. There are, however, many women at the mine site with food and drink to sell to miners, and a small percentage of them also work as prostitutes. This undoubtedly makes artisanal diamond mining a vector for HIV/AIDS.

Many children are involved in diamond mining, often starting as young as twelve. School-age children go to the mines to earn money for their schooling. Some return to school, while others may continue mining for one or two years. Due to the dangerous and physical nature of the work, pre-adolescent children are normally restricted to washing the gravels. Researchers were told that children only go to the mines during school holidays, but they observed many teenage boys both digging and cleaning. One group of younger boys said they were given 1000 Congolese francs a day (US$3.82) to wash the gravels, which they divided four ways.

The vast majority of diggers are Congolese. They come from all areas of the country, and many move regularly, depending on where they believe they will find the best opportunity for diamonds.

Angolans may also be working illegally in some mines, but there are no accurate statistics on this.

During the war, mining areas beyond government control were regularly visited by armed groups aiming to benefit from diamonds. This may no longer be the case, but the peace agreement remains fragile, and skirmishes are frequent. Mining police and the military have now been deployed, and armed personnel were evident in all of the artisanal mining sites visited for this report. Some are said to benefit from the largesse of *négociants* and suppliers. Although this remains hearsay, one Ministry of Mines official interviewed for this report said it is a serious problem.

ARTISANAL MINING IN INDUSTRIAL CONCESSION AREAS

In 2002 Amnesty International documented the arrest and shooting of dozens of artisanal miners working illegally in MIBA's concession area.[28] MIBA has a concession of 78,000km^2 and is working on 12 kimberlite pipes in a small section of this area, called the Polygon. When the Polygon was first mined, a perimeter fence was erected to prevent illicit diggers from entering, but the fence has been broken for almost ten years and it is a major challenge for MIBA to protect the area. Villages line the edge of the Polygon and, due to the lack of alternative employment, artisanal miners enter the area – particularly at night – to dig for diamonds. MIBA has its own security force, as well as police and army security on site.

Despite the possible security risks, people continue to risk their lives to earn money from diamonds. Officials estimate that 20 per cent of Mbuji Mayi's population is made up of artisanal miners – approximately half of the working age male population.

Sengamines, the DRC's other industrial diamond mining company, takes a different approach to artisanal miners working on their concession. After initial negotiations with the local chief, Sengamines has agreed that miners can dig as long as they vacate areas that are about to be mined industrially. As the site around the main kimberlite pipe expands, artisanal miners move to different areas. This does not eat into Sengamines official production, because the diamonds being mined artisanally are from topsoil that is commercially unviable for an industrial operation. Sengamines says that arms are not allowed on its concession.

CONCLUSIONS

AFRICA'S ARTISANAL DIAMOND SECTOR EVOKES THE PERUVIAN ECONOMIST HERNANDO DE SOTO.[29] DE SOTO ARGUES THAT IN PERU THE INFORMAL ECONOMY EVOLVED AS A RESULT OF THE ENORMOUS COMPLEXITY OF PERU'S LEGAL MACHINERY AND ITS IMPOSSIBLE GOVERNMENT BUREAUCRACY, BOTH OF WHICH HAVE RESULTED IN A SITUATION WHERE BRIBES ARE NECESSARY TO ACCOMPLISH ANYTHING, AND WHERE APPROXIMATELY 60 PER CENT OF PERU'S BUSINESS OPERATES BEYOND THE LAW. ARTISANAL DIAMOND MINING IN THE DRC, ANGOLA AND SIERRA LEONE MAY BE AS DRAMATIC, AND THERE ARE STRONG SIMILARITIES. BECAUSE ALL THREE COUNTRIES HAVE HAD SUCH A LONG HISTORY THROUGH THE 1970S, 1980S AND 1990S OF POLITICAL CORRUPTION, BAD GOVERNANCE, LACK OF ADHERENCE TO THE MOST BASIC RULES OF BUSINESS ETHICS, AND ARMED CONFLICT, DIAMOND ECONOMIES EVOLVED WITH THEIR OWN RULES. DESPITE RECENT CHANGES FOR THE BETTER IN THE REGULATORY SYSTEMS OF ALL THREE COUNTRIES, THE ARTISANAL MINING SECTOR IS STILL CHARACTERIZED BY SUB-MINIMUM WAGES AND UNSAFE CONDITIONS FOR THOSE WHO MINE DIAMONDS, BY CHILD LABOUR, AN ABSENCE OF ENVIRONMENTAL CONCERN, BRIBERY, TAX EVASION AND OUTRIGHT SMUGGLING.

The strongest and most obvious conclusion is that the positive contributions of diamonds to the economic and social development of these countries are outweighed by the negative:

- The income received by all levels of government in the form of taxes and licence fees is negligible relative to the value of diamonds exported. A high proportion of the fees and taxes must be ploughed back into the diamond system to pay for monitoring, valuation and Kimberley Process compliance. The diamond industry generates a pittance for general government revenues and for any serious investments in development;

- The governments in question cannot charge higher taxes for fear of stimulating smuggling. As a result, their mines ministries are neglected institutions, often without the basic tools needed to carry out their supervisory mandates. Their officials – key links in the diamond chain – are poorly paid, and the incentives for corruption are enormous;

- There are a million diggers working in the diamond pits of Angola, the DRC and Sierra Leone, many of them supporting families. At least five million people, therefore, have some level of dependency on artisanal diamond mining. The enterprise is environmentally unfriendly. It is physically demanding, unhealthy work, with no job security. In many areas it is little more than indentured labour;

- While the diamond industry in these countries may appear to be competitive it is not. At the level of the digger, it is a dog-eat-dog casino economy. At the export level, the dominant market structure is dominated by a handful of companies and individuals. At the middleman or "dealer" level, price fixing, gouging, opportunism, fencing and smuggling are endemic. There is no free market in the artisanal alluvial diamond economy.

As noted at the outset, this study concludes that ***artisanal alluvial diamond mining will never generate large amounts of revenue for the governments in question***. The nature of alluvial diamonds and of artisanal mining makes any kind of meaningful taxation almost impossible. It is important, therefore, to ensure that any expectations about these diamonds are realistic. Second, it concludes that ***most artisanal diggers, working in a casino economy and, hoping to strike it rich, actually earn little more than a dollar a day***. Their work is hard, dirty, and it is completely outside the formal job market. This places them squarely in the "absolute poverty" income bracket. There can be no talk of "development diamonds" under these circumstances.

Given the large mark-up at the first point of sale, and the almost complete absence of a free market diamond economy in the digging fields, ***there are opportunities to increase the earnings of miners***. The constraints, however, are political, economic, social and historical, and they are enormous. Paradoxically, any increase in earnings for diggers may attract more people to the already overpopulated diamond fields. This does not make the challenge less important, however. ***Real change could reduce the chaos and instability that the diamond fields spawn. At a minimum, diamonds could be the generator of decent incomes for hundreds of thousands of families, rather than the centre of unsafe, unhealthy, badly-paid piecework.*** There are enough pilot projects and enough experience to know that the potential is real.

As noted at the outset of this report, change will not happen if it is left to chance, slogans and studies, and if those who know diamonds say that the responsibility lies elsewhere. Partnership Africa Canada and Global Witness welcome comments and suggestions, and look forward to working with the governments of countries where alluvial diamonds are mined, with Kimberley Process stakeholders, development organizations and civil society in seeking ways to bring meaningful and positive change to this important development challenge.

NOTES

1 World Bank, *Breaking the Conflict Trap; Civil War and Development Policy*, World Bank/OUP, Washington, 2003, pg. 127

2 *Ibid*, pg. 53

3 Namibia represents the only exception to this rule. There, before World War I, the German colonial government excluded almost everyone from a 26,000 km^2 coastal strip of diamond-rich territory. Still known as "the forbidden zone", each successive government has successfully continued the German policy.

4 International Labour Office, *Social and Labour Issues in Small-Scale Mines*, Geneva, 1999, pg. 1.

5 *Ibid*, pg. 3; emphasis added.

6 Economic Commission for Africa, *Compendium on Best Practices in Small-Scale Mining in Africa*, Addis Ababa, 2002, pg 21.

7 This is not as true in diamond mining as it is for artisanal gold mining. At the present time there is a major conflict in Ghana between large gold companies and artisanal miners which has resulted in deaths, injuries and forced displacement of artisanal miners. In Guinea a large Canadian gold mining company is attempting to move in on artisanal miners.

8 The project would like to thank Estelle Levin, Dawn McLean and Mark Renzi for helpful comments on an early draft, and for additional information for this section of the report.

[9] Williams John, Sutherland Donald, Cartwright Kimberley and Byrnes, Martin, *Sierra Leone: Diamond Policy Study*, January 2002. The study can be found at www.dfid.gov.uk.

[10] Government of Sierra Leone Gold and Diamond Office, *2003 Annual Report*, Freetown, 2004, unattached appendix.

[11] These are estimated maximum figures; the three per cent tax figure is taken from the GGDO 2003 Report. The tax does not work out to 3 per cent of all exports because of reductions for exporters over a certain amount. The licence fees are estimates based on actual 2004 licence rates and an estimate of the number of dealers, licence holders and agents

[12] Source: Sierra Leone Government Gold and Diamond Office, *2003 Report*, Freetown, 2004, p. 5 and estimates. Currency conversions at US$1 = Le2532

[13] A 2003 USAID study it is argued that the "actual market value" of Sierra Leone's diamond production in 2002 was likely around US$320-400 million, representing an output level of approximately two million carats. The study further stated that 90 per cent of these diamonds were being smuggled out of the county. *Sierra Leone Diamond Sector Financial Policy Constraints*, Management Systems International, Freetown/Washington DC, June 2003. These numbers are probably too high. The highest level of diamond exports was set in the late 1960s. The 2 million carats exported at that time represented all alluvial and industrial production, a level that could not have been achieved under the conditions of 2003.

[14] A progressive tax is one in which the percentage of tax applied to income increases as income increases. A regressive tax is one in which the percentage of tax applied to income decreases as income decreases, which is the case with the Sierra Leone incentive plan. All western democracies have progressive income tax systems.

[15] Reports on the DACDF are available at http://www.peacediamonds.org/publications.asp?id=06

[16] See the Second Sub Committee Meeting Notes of the Kono Peace Diamond Alliance (Code of Conduct), September 12, 2003 and October 9, 2003.

[17] For example, diggers do not work 12 months of the year. A calculation based on a seven month working year would almost double the calculation of their income, although some argue that most diggers receive significantly less than 30% of the export price. If their "take" was more like 15% or 20%, the calculation would result in the same rough estimate of $1 a day. It would mean, however, that the number of diggers is significantly higher.

[18] For a detailed discussion on the Lebanese diamond connection, see *War and Peace in Sierra Leone: Diamonds, Corruption and the Lebanese Connection*, by Lansana Gberie, Partnership Africa Canada, Ottawa, 2002.

[19] See *Sierra Leone 2004: Diamond Industry Annual Review*, Partnership Africa Canada, Ottawa, 2004, pg.7. Most of the information on environmental issues in this paper is taken from this report.

[20] UN Security Council Report S/2002/486

[21] "Angola police kill three in diamond region protest", Reuters 25/2/04

[22] http://www.unwire.org/UNWire/20040412/449_22679.asp

[23] Statement to Angola Press Agency (Luanda) November 25, 2003

[24] Alfred Zack-Williams, *Tributors, Supporters and Merchant Capital Avebury Press*, Milton Keynes, 1995

[25] Law No. 007/2002 of 11 July 2002

[26] Article 111, Chapter 1, Title V: Artisanal Mining Exploitation

[27] Source: Ministry of Mines

[28] Amnesty International, *Democratic Republic of Congo: Making a Killing: the Diamond Trade in Government-controlled DRC*, AFR 62/017/2002)

[29] De Soto, Hernando, *The Other Path: The Invisible Revolution in the Third World*, Harper and Row, New York, 1989. For a discussion of the economic and political characteristics of an underground economy, see especially chapters 1-4.

global witness

ISBN: 1-894888-62-6

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8th Floor, 1120 19th St. NW, Washington DC 20036 mail@globalwitness.org