**Major Challenges Ahead**

**Editorial Comment**

The War in Angola started in 1961 with the armed struggle for independence from the colonial power, Portugal. Angola obtained independence in November 1975 and concurrently, União Nacional para a Independência Total de Angola (UNITA) – one of three factions that had been fighting for independence – began a civil war that lasted 27 years. UNITA developed its resource war-strategy during the 1980s, when Angola fell victim to Cold War politics and apartheid South Africa’s wars against its neighbours. Brief periods of peace proved illusory; Angola’s civil war eventually ended in 2002, following the death of UNITA leader, Jonas Savimbi.

This first Annual Review of the diamond industry in Angola examines the state of the industry since UN sanctions against UNITA were ended in December 2002. It examines the potential for diamonds to serve as an engine of development rather than war. And it spells out some of the challenges that now face a government that has been widely criticized for secrecy, corruption and mismanagement.

In 2003, Angola ranked 164th on the UN Human Development Index, which conflates per capita income, literacy, infant mortality and life expectancy. A country slightly bigger than France, Angola is lightly populated. Although no recent census has been undertaken, the population is estimated between 12 and 16 million. The wars, however, have driven much of the rural population into the towns, with a quarter to a third of the population living in Luanda alone – now a city of four million people.

Angola’s problems, after so many years of war, are manifold, and cannot all be addressed quickly. The return of up to a million refugees and the resettlement of over three million internally displaced people add to the formidable problems of reconstruction. The estimated cost of restoring roads and bridges alone – essential to the movement of food, goods and people – is US$4 billion. Even though the war ended in 2002, 1.7 million people still require relief food from the World Food Programme. There are up to five million landmines, mainly in agricultural areas. Outside the principal coastal cities, there has been little space for safe investment or development, and state control over the country as a whole is only now becoming a reality. Capacity-building in social institutions is just beginning.

The diamond sector has been severely affected by war, but it is seen by many as a potential driver of development and re-investment in the provinces, although the starting point is very low. Some changes are clearly being put in place; the country’s diamond regulations are being changed and the government is currently in the process of expelling 350,000 illicit Congolese diamond miners. Against this background, redeveloping the diamond sector and making investments in the mining regions – in ways that benefit ordinary Angolans – will be vitally important in the months and years ahead. The Annual Review 2004 examines the state of the Angolan diamond industry today, and will hopefully serve as a benchmark against which future developments can be measured.

**Geology of Angola**

Diamonds occur in kimberlites and in a variety of placer deposits. Around 700 kimberlites of varying sizes (65-190 hectares) and shapes are known in Angola, the grade increasing with depth. The kimberlites are aligned along a SW to NE trend across the country and into the Democratic Republic of the Congo.

Alluvial diamonds are produced from the erosion of volcanic kimberlites 80-120 million years old. The richest diamond fields are located in the north-eastern corner of Angola in Lunda Norte. Past and present production is principally from recent alluvial river deposits, but some deposits occur in older alluvial terraces or Cretaceous conglomerates.

Diamond reserves were estimated in 2000 at 40 million carats in the alluvial and terrace deposits, and 50 million carats in kimberlite pipes, although the first figure is now considered by some geologists to be improbable, following the depredation of the alluvial resources. Interestingly, one effect of UNITA’s mining was to demonstrate that Angola has more diamond deposits than were previously known.
History

Angola is one of Africa’s greatest diamond resources, with both large-scale alluvial and terrace deposits along its rivers, particularly in the north-east of the country, and untapped diamond resources in its many identified kimberlite pipes. It is the world’s fourth largest producer of diamonds by value. Although market sources believe that with smuggled production, Angola is actually the third largest producer. Diamonds are Angola’s second most important export after oil, averaging US$700 million per year since 2000, and development of the sector is a national priority.

Diamonds were discovered in Angola in 1912, at Mussulala in Lunda Norte in a tributary of the Chicapa River, by the prospectors Johnston and McVey, who were tracing the source of diamonds found in the then Belgian Congo. A prospecting company, Companhia de Pesquisa Mineira de Angola (PEMA), was established in 1912 to prove the resources. The colonial mining vehicle Diamang (Diamond Company of Angola), a joint venture between De Beers, the Portuguese state and international mining finance interests, was established in 1917. The Lundas had been brought under Portuguese control by what are termed the wars of “pacification” of the Chokwe people. Although they are the major local ethnic group, extending into the Congo (and well known for their art and culture), the Chokwe tended to resist working in the mines, and workers were drawn from other areas of Angola. Portuguese colonialism legalized the use of cheap and not always voluntary “contract” labour imported from other areas of Angola. One example was of the provision of 5,500 of Diamang’s 17,500 African workers in 1947.1

From the company’s inception, Angola was a country of major interest to the most important players in the world of diamonds and mining capital. De Beers managed all of the company’s mining operations. Diamang was famously a “state within a state” with its own laws, mining police, food production and border controls.

Diamonds were produced during this period from alluvial mines in the hydrographic basins of the Cuango, Luachimo and Chicapa rivers, which have continued to be the backbone of mining in Angola. Country-wide prospecting was last carried out in the 1970s by CONDIAMA, a De Beers company. This remains the principal source of information on diamond deposits, although a Russian geological survey of Angola was completed in the 1980s.

At independence, the colonial vehicle Diamang ceased mining because of lack of technical capacity – Angolans had not at that point been trained to a level that would enable them to run the mining operations in the backward world of Portuguese colonialism, even as late as the 1960s.

In 1977, the government signed an operating agreement with Mining and Technical Services Ltd. (MATS), a vehicle set up by De Beers to mine in Angola. De Beers also trained Angolan diamond sorters in London. All the production was sold to De Beers’ Central Selling Organization (CSO) in London. MATS raised Angola’s diamond production to 184.5 thousand carats valued at US$233.9 million by 1980. However by 1986, relations with De Beers had collapsed, and UNITA attacks on mines had reduced output to US $16.6 million.

Between 1986 and 1991, Endiama continued to use mining operators. Joint venture contracts were not introduced until 1994. With Roan Selection Trust and ITM Mining acting as mining operators, diamond production rose to 87,139 carats, worth US$107 million. The diamonds were sold by tender at first, and later a sales system was set up in Antwerp, using five Belgian companies and Angolan diamond sorters. UNITA attacks on mines, in the Cuango in particular, continued until the end of this phase of the war, following the signing of the New York and Bicesse Accords between the government and UNITA.

The UN Peacekeeping and Sanctions

The United Nations’ first peacekeeping mission in Angola, UNAVEM I, was set up in 1988. UNAVEM II monitored elections in 1992, and UNAVEM III monitored the disastrous non-implementation of the 1994 Lusaka Peace Protocols and the return to war.

In September 1993, the United Nations Security Council imposed the first sanctions on UNITA’s arms trading. These were widely ignored. In 1997, only six months after UNITA had joined the Government of National Unity and Reconciliation, it became clear that large scale war was likely to restart. A second set of sanctions was imposed, this time on flights into UNITA territory and on the movements of UNITA members.

A third set of sanctions, in July 1998, was imposed on UNITA’s finances and diamond trading. These were the first to produce real effects, and they set the stage for investigations by UN panels inquiring into the relationship between natural resources and wars – ultimately in four African countries – and for the establishment of the Kimberley Process (see pg. 11). The British NGO Global Witness published A Rough Trade in December 1998. This widely publicized report on Angola and UNITA’s use of diamonds for war sparked global interest.
UNITA rejected the subsequent election results and, in October 1992, went back to war and seized most of the diamond fields. Only one formal government-run mine continued to work throughout the next three years, although others were able to operate sporadically. During this period, UNITA was the major producer of Angola diamonds, producing and smuggling as much as 90 per cent of the total reported production. State production and exports fell to $28 million in 1993, was close to $60 million in 1994-5 and only began to rise again in 1996, when these reached $147 million, after UNITA surrendered mining areas and the Lusaka Peace Accords began to be implemented.

Growth in the formal sector slowly increased, and several new mines came on stream and survived the 1998-2002 war, including the Catoca kimberlite and the Luzamba mines (see page 4). However, many scheduled mining projects halted, declaring *force majeure*, and working projects were again attacked by UNITA. War and the effects of uncontrolled *garimpo* mining resulting from so many years of instability have together kept Angola’s diamond industry operating far below its capacity.

**Structure of the Industry**

**The Ministry of Geology and Mines**
The Ministry of Geology and Mines is responsible for negotiating contracts for all mineral rights, both diamond and non-diamond; for ensuring the application of the Mining and Mineral Law; and for geological survey. All mineral rights belong to the state; all contracts, both for prospecting and mining, must be approved by the Council of Ministers and gazetted in the state journal, the *Diário da República*.

Prospecting rights are awarded for five years in the first instance. At the end of this period, 50 per cent of the area must be relinquished. Mining title, also negotiated by the ministry, may subsequently be granted, and is for the duration of the life of the deposit. Since 2000, mining rights have been limited to areas of 3,000km². Previous awards covered larger areas, but security conditions and the inability to prevent illegal mining led to the reduction. Companies can apply for more than one concession, but in practice the outcome appears to be the growth of many smaller joint venture companies.

Taxes for surface rights are between US$1 and $3 per hectare, per year in the first instance and $3 on renewal of the prospecting licence. A premium is payable on the awarding of mining rights, based on the size and value of the project. Royalties for mining ventures are between three and ten per cent of the gross value of minerals produced. Presently, the rate for diamond mines is five per cent, with a six per cent tax. Corporate income tax is 25 per cent on net profits up to US$5 million. Fifty per cent of capital investment can be written off in the first year of operation and 25 per cent thereafter.

**Endiama and Official Diamond Production**

New diamond legislation is expected before the end of 2004. At a minimum, the new law is expected to clarify the separate roles of Endiama (*Empresa Nacional de Diamantes de Angola*) and the Ministry of Geology and Mines. Angola’s diamond industry is a mixture of state and private interests, with the state diamond company Endiama being the controlling company in Angola’s diamond industry, since 1986. At present, the state, through Endiama, is a partner in all diamond ventures, with a majority

**The Players**

In 1974, the Portuguese colonial diamond company, Diamang, was largely nationalized and in 1986 was replaced by a new state mining company, Endiama. The 1994 diamond law gave Endiama “the sole rights of prospecting, research, exploration, reconnaissance, treatment and marketing of diamonds within the entire national territory, or to any joint venture in which it participates.” In 1999, however, Endiama transferred its marketing rights to a newly created 99 per cent Endiama subsidiary called *Sociedade de Comercialização de Diamantes* (SODIAM). SODIAM in turn entered into a joint venture to create ASCorp (an acronym for Angola Selling Organisation), in which it held 51 per cent. Israel’s Lev Leviev and Belgium’s Sylvain Goldberg held the balance. ASCorp’s contract ended in July 2004, and SODIAM will now market all Angola’s production.

During the 1990s, Endiama entered into joint venture arrangements with a variety of international mining companies. The Catoca mine, one of the world’s largest kimberlites, is a joint venture with Russia’s Alrosa, Brazil’s Odebrecht, and Leviev’s UK based Daumonty Financing. On the trading side, Endiama signed a contract with De Beers’ Central Selling Organisation (CSO) in 1991 to buy diamonds from the formal sector. This agreement was later suspended. In 1995, Endiama entered into joint ventures to buy diamonds from local diggers with international firms such as Omega (Belgium), Steinmetz (Belgium-Israel), Arslanian Frères, (Antwerp) Lazare Kaplan (Maurice Tempelsman, USA) and De Beers. When the marketing rights were transferred from Endiama to ASCorp, these buyers had their licenses revoked. Now, new informal sector buying ventures are once again being set up to replace ASCorp, with some of the same players reportedly negotiating for buying licences.

De Beers, which has a long history of mining in Angola, and which had a joint venturing relationship with Endiama during the 1990s, decided in May 2001 to go to international arbitration over its three contracts, following the loss of all its buying rights to ASCorp and the reduction of its prospecting areas. Also in dispute is the repayment of a $50 million loan and accrued interest.
shareholding of 51 per cent in all kimberlite ventures and the largest shareholding in all alluvial mines.

Endiama is a partner in the eight mines that are operational at present (see below), including Catoca, and in all new mining ventures. Gross revenue from the sector is expected to exceed $1 billion in 2005, up from an estimated $900 million in 2004, $800 million in 2003 and approximately $700 million in 2002. Endiama will have a 51 per cent stake in all new kimberlite mining projects and is the single largest shareholder in all alluvial projects.

Although production from Endiama’s joint ventures has been increasing steadily, and is expected to continue to do so, the next phase will be the development of Angola’s kimberlite pipes and the regularisation of artisanal mining. Artisanal miners will, in principle, be regulated by the joint venture companies on whose fringes they will be licensed to operate. However, at present there is no provision for training the small miners or for equipping them. This is a role which Endiama could usefully play. In so doing, it could improve the conditions of artisanal miners and break the hold of the middlemen, who currently supply them and buy the diamonds they produce at artificially low prices.

Endiama inherited the colonial structure of Diamang, with a major, and very expensive responsibility for maintaining facilities in the diamond regions. During the mid 1990s, many of Endiama’s facilities in the Lundas were moved to Luanda, including the company’s hospital and its remaining archives. The mining towns of Lucapa, Nzaji, Dundo and Saurimo have decayed over a long period. As in all towns in Angola, the facilities built for the colonizers have not been extended to meet the needs of local people. The towns have merely extended into slums as people have been drawn to them.

Endiama and its partner companies are the largest direct employers in the mining regions, and they are a major provider of infrastructure in the Lunda provinces, since much of it is directly for the support of diamond mining. Low wages and poor conditions for many workers, however, have led to strikes in the Lundas. Endiama itself directly employs approximately 10,000 people in Luanda and the provinces. Joint venture companies employ several thousand more, although expatriate workers are concentrated at the higher levels of management and technical expertise. Endiama, as a principal shareholder, has staff in all the mining ventures.

The mining companies provide training for their workers, including literacy training. However much work is semi-skilled to skilled, and low to non-existent education levels in the Lundas mean that considerable investment in training is needed to increase employment among local people, whose alternatives are agriculture or artisanal "garimpo" mining.

Mining Projects and International Companies

Major mining companies have long been attracted to Angola as a source of diamonds. But continued instability and attacks on mining projects by UNITA led to long delays in development. The war not only led to force majeure but massively increased costs. All goods and materials for mining had to be moved by air, roads were unsafe or impassable; security was expensive.

Although nearly 40 mining and prospecting ventures were gazetted between 1995 and 1999, only eight projects are mining at present. Many previous projects did not develop at all. Several had to stop because of UNITA activity, while others were never viable in the first place. At present, the principal international players are the Russian diamond group Alrosa, the Brazilian Odebrecht Mining Services Inc., South Africa’s Trans Hex, Petra Diamonds, and the Bermuda-Registered ITM Mining Ltd., which operates solely in Angola.

The Catoca Pipe

Alrosa – Almazy-Rossii-Sakha – the Russian state diamond mining company that operates the Siberian mines, is one of four shareholders in the Catoca kimberlite, the world’s fourth biggest pipe in surface area. Catoca is close to Saurimo, in Lunda Sul. The project was first mooted in the late 1980s, and the pipe was investigated by Alrosa. UNITA occupation of the area made further developments unfeasible until 1996.

Alrosa and Endiama each have a shareholding of $9.6 million (32 per cent); Odebrecht Mining Services has an investment of $4.8 million (16.4 per cent). In April 1997, Lev Leviev (see pg. 7) became a partner, providing the additional $25 million needed to complete the mine.
Cuango – SDM

Sociedade de Desenvolvimento Mineiro (SDM) is based in Luanda in the Cuango Valley and is a joint venture between Endiama and Odebrecht Mining Services Inc. (OMSI), the mining subsidiary of the giant Brazilian conglomerate Construtora Norberto Odebrecht S.A., which is also a shareholder in Catoca. Re-developing the Luanda mines cost $130 million. Odebrecht announced in January 2003 that it would withdraw from its Angola mining operations, but has since decided to stay, to increase its shareholding in Catoca and to look for new projects for SDM.

Odebrecht began mining the then Luanda Project in mid 1991, as an operator for Endiama. The $50 million investment for buying plant and equipment and developing the mine came from a loan made by De Beers to Endiama (see pg 6). De Beers was to buy all the diamonds produced in the Cuango, from Luanda and from the Calunfo mines 50 km north of Luanda. At that time, Cuango diamonds represented 80 per cent of Angola’s production — worth approximately $185 million a year. The project operated for only 15 months until UNITA seized the region and began its own large scale diamond mining operations.

Currently, Luanda is the only formal alluvial mining operation producing diamonds in the Cuango region. All other diamond production is from artisanal mining, although new industrial-scale projects are expected to come into operation. SDM produced $177 million of diamonds in 2003, but its present concession is expected to be exhausted in 2004.

Angolan Mining Companies

There is a strong policy of Angolanzing the diamond industry, so that no single foreign company dominates the landscape. The role of the foreign joint-venture partner companies is to bring in investment and mining expertise. Besides Endiama, about 17 Angolan companies currently hold mining concessions, and it is expected that all new projects will have some private Angolan ownership. Endiama stated in January 2004 that it had approved 14 new prospecting bids, all involving foreign investment — out of an astounding 17,000 bids. Not all of these ventures had been publicly announced at the time of writing, and not all will result in mining projects. Many will be joint ventures that were suspended in 1998 and have, or are negotiating, new contracts.

With assistance from ESCOM, Endiama plans to develop its own mining capacity, having established a further subsidiary, Endiama Prospecting and Production, to achieve this. ESCOM was set up to provide mining investment in Angola by the Portuguese banking group, Grupo Espirito Santo. The depredation of alluvial reserves means that medium and large-scale alluvial projects will play a reduced part in the future of mining in Angola. Grades are now thought to be too low to support this scale of mining in the longer term and the long-delayed development of kimberlite projects is now the priority.
Trans Hex – Luarica and Fucauma

Trans Hex, a South African mining company, is the second biggest producer of diamonds in South Africa after De Beers, mining about eight per cent of the country’s gems. Trans Hex, which declared force majeure on its project in 1998, returned to Angola in 2002, signing new agreements with Endiama for two alluvial projects, Luarica and Fucauma. The Luarica Project has a six year life expectancy and required investment of approximately US$15 million. The reserves are said to be 790,000 carats, worth US$70 million. Production started in April 2003 and Trans Hex sold its first diamonds from the project in July 2003 – 20,000 carats, at an average of more than US$300 dollars per carat.

The Fucauma project has a four year life expectancy. The initial investment was estimated at US$11 million, and the expected revenue is US$70 million. Trans Hex has a 32 per cent shareholding. Endiama holds 38 per cent, and the remaining 30 per cent is held by other Angolan companies. Development of the Fucauma Project has not yet started, however, and production stopped at Luarica because Trans Hex had not put in the necessary equipment, according to Endiama. The problems were said to have been resolved in mid 2004, with mining set to restart at Luarica and to begin at Fucauma later in the year.

SML – Sociedade Mineira de Lucapa

SML is a joint venture between Endiama (51 per cent) and the Portuguese rump of Diamang, Sociedade Portuguesa de Empreendimentos (SPE), formed in 1991 and based in the mining town of Lucapa. This was the sole mining project that remained open throughout the period after 1992, mainly because Lucapa was a major forças armadas angolanas (FAA) base. Nevertheless, mining personnel were killed in UNITA attacks, and production was low. SML has shareholdings in four alluvial mining projects, Lucapa, Mafuto Norte, Calonda and Yetwene, mining gravels and building river diversions.

SPE was the only formal Portuguese diamond interest in Angola until ESCOM Mining (see page 5) was set up to provide mining finance. Portugal had hoped for a considerable role in diamond mining in Angola and set up a joint venture buying operation in Portugal with De Beers, DIALAP. DIALAP bought smuggled Angolan diamonds on the open market in Lisbon. Portuguese nationals continued to smuggle diamonds out of Angola, but the buying venture, together with a cutting joint venture DIALAP, was shut down in 1999. The cutting factory is now a wholly-owned De Beers venture.

Chitotolo

The mines at Nzaji have been operated since 1998 by Associação Chitotolo Sociedade Mineira de Lumanhe (15 per cent), ITM Mining (50 per cent) and Endiama (35 per cent) are the shareholders. The project required an initial investment of US$15 million, to re-treat old tailings dumps and to prospect alluvial reserves. It is the third largest producer of diamonds in Angola at present. Prior to the formation of Chitotolo, Endiama’s Penz Project mined in Nzaji, albeit intermittently, since the region was a UNITA corridor from 1992 and the mines changed hands several times. The area was mined by Congolese on behalf of UNITA, and its reserves were heavily depleted as a consequence.

ITM Mining

ITM (Bermuda) Ltd was a subsidiary of the British company, ITM Mining Ltd., until 1994. It is now an Angola-based mining contractor, formed from staff who worked previously with MATS and Roan Selection Trust, and who had long experience of diamond mining in Angola. ITM stopped working with directly with SML at Lucapa in 1999, due in part to inadequate security conditions. ITM is now a major partner for the mining companies owned by past or present FAA generals, including Lumanhe Ltd., the smallest shareholder in Calonda and Chitotolo.

Projects in the Pipeline

Camufute: a medium-sized alluvial and kimberlite project, expected to produce 5,000 carats a month at approximately US$200 per carat. An Angolan company, Terraminas, has the mining rights and is looking for partners.

The Camafuca Camazomba Pipe: at 160 hectares, is the world’s largest kimberlite pipe in surface area, with reserves of 23 million carats. The Canadian firm, Southern Era Resources, carried out a feasibility study in 2000 and expected to begin mining in 2003 in partnership with Endiama, Minex (Israel) and Comica (Angola). At the time of writing, permission was still awaited to set up the Angolan company that would operate the mine.

The Lapi Project: near Catoca, Lapi will be mined by Australia’s New Millennium Resources with three partners: Angola Resources Pty. Ltd./New Millennium Resources, an Angolan company, Mombo Lda. and Endiama, which has a 51 per cent shareholding.

Adasta: Adasta, previously America Mineral Fields, was awarded two alluvial concessions in the northern Cuango in 2000, through its wholly owned Angolan subsidiary, IDAS Mining Resources Inc., in partnership with Endiama. Contracts have yet to be finalized. IDAS was originally a Belgian security company (International Defence and Security Resources).

DiamondWorks: DiamondWorks’ known remaining interest is in the Yetwene mine. Yetwene was closed in November 1998 following a UNITA attack which ended in the abduction and almost certain death of miners and technicians. In 2000, DiamondWorks stopped payments to the widows and children pending proof of death. No resolution has been announced. The two kimberlite pipes, Camatchia and Camagico have been re-assigned to the Luo project, and Luarica has been transferred to Trans Hex. In May 2004, DiamondWorks changed its name to Energem Resources Inc.

De Beers

De Beers has a long history in Angola as a major shareholder in, and operator of Diamang, and as a mining operator and buyer of Angola’s diamonds until 1985, when relations with government broke down. In 1991, after the first peace accords were signed, De Beers and Endiama signed a new contract. Relations broke down again in 2000, however, leading ultimately to De Beers seeking international arbitration of its contracts.

The contracts provided for:

- Purchase by De Beers’ Central Selling Organisation (CSO) of all diamonds produced from the Cuango Valley (then 80 per cent of Angola’s diamond production). De Beers made a $50 million loan to Endiama, which was used to develop the mines at Luzamba. This was to be repaid from the proceeds of diamonds sold to CSO.
• Investment of $50 million in prospecting for new kimberlites, and in developing any resulting mines as a joint venture between the two companies;

• Investment of $30 million in building a sorting centre in Luanda;

• Additionally, in 1995 De Beers set up an open market buying operation in Angola with Steinmetz and Endiama (CODIAM).

De Beers’ prospecting contract covered three areas: Lunda Norte, Quela in Malanje Province and Mavinga in Cuando-Cubango Province. The latter two were occupied by UNITA until September 2001, when they were declared free of force majeure. Prospecting for kimberlites in Lunda Norte began in 1996, however, and was successful, with De Beers discovering 45 new kimberlite pipes by early 1999. But large-scale sampling of the pipes, which would have involved bringing in a new drill rig, did not take place due to the suspension of De Beers’ buying contract and the reduction of its mining and prospecting areas to 3,000 km² in January 2000.2 The CSO’s contract to buy the Cuango production initially ran until October 1992, when UNITA seized the mines and the contract was suspended by force majeure. The contract remained suspended until 1998, after UNITA’s withdrawal from the mines and SDM started official production. De Beers also bought informal production from FAA-occupied areas of the Cuango in 1995 through its CODIAM joint venture. De Beers withdrew its buying staff from Angola in October 1999, and ended all open-market buying in Africa in response to the increasing profile of conflict diamonds. The company, however, kept its shares and management role in CODIAM. CODIAM was ended and the contract with the CSO suspended at the beginning of 2000, when, under UN pressure to implement better controls, Angola set up its ASCorp single-channel buying system.

In 2001, De Beers initiated international arbitration proceedings on three of its contracts with the UN Commission for International Trade Law (UNCITRAL) and the London Court of International Arbitration. A moratorium on the arbitration reportedly ended in April 2003, when talks between the two sides failed.3 The first arbitration case, concerning restitution of De Beers’ prospecting rights, was heard in Brazil in September 2003. The arbitration reportedly concluded for technical reasons, without a ruling or adjudication being made on whether De Beers prospecting rights should be restored to their original size. Endiama has stated that De Beers was ordered to pay 60 per cent of the costs, and considered the case a victory. De Beers has denied that they lost the case, and says it considers its underlying prospecting rights to be unaffected.4 Two further adjudications – on repayment of the $50 million loan and accrued interest of over $32 million, and on De Beers’ contract to buy diamonds from Angola – have yet to be heard. The results of the arbitrations will determine the future relationship between De Beers and Angola.

Artisanal Mining

Artisan or ‘garimpo’ mining was not the chief source of Angolan diamond production until the beginning of the 1990s. Artisanal mining is carried out by the hand digging and sieving of gravels. In practice, much of this production today is actually artisinal; 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 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 worth of

Leviathan

Lev Leviev, currently the principal buyer of Angolan diamond production, runs the world’s second largest diamond business after De Beers. He is not yet 50. The Leviev group’s diamond company, LLD, is thought to be one of the largest diamond polishers in the world, polishing between US$570 million and a billion dollars a year. Leviev also markets rough diamonds, said to be worth as much as $1 billion a year. The company’s total turnover is estimated at something between $2 and $2.5 billion.

Leviev’s first business venture in Angola was a partnership in the Catoca kimberlite pipe, starting in April 1997. He was Alrosa’s partner of choice because the Russian firm – in financial straits – needed a buyer for the mine’s production, which Alrosa was contracted to purchase. Between 1997 and 2003 the mine produced diamonds worth almost $910 million. The Angola Mining Corporation (ASCorp) was set up in November 1999, but it was not gazetted until January 2000. In the intervening period, Angola came under political pressure from Russia to begin channeling diamonds directly through Alrosa. Leviev has invested in the giant Camafuca-Camazomba pipe and elsewhere. The Leviev group also has diamond mining interests in Namibia and in Russia. It has diamond factories in Russia, where it has a substantial share of the polishing market, as well as in Ukraine, Armenia, China, South Africa, Namibia and Israel.

Leviev became involved in controversy in 2000 when billionaire Russian industrialist Arkady Gaydamak bought a 15 per cent share in Leviev’s Africa-Israel Investments. Gaydamak reportedly bought out Angola’s $5 – $6 billion debt to Russia in 1998 and has reportedly brokered it down to $1.5 billion, to be repaid in 31 installments over 10 years. Gaydamak was also said to have brokered arms supplies to the government of Angola through French intermediaries when the 1992-4 war was at its height and UNITA had re-armed. This procurement was investigated for illegality under French law. In addition, Swiss investigations are said to have found evidence of massive diversions of debt repayments owed to Russia into private accounts held by Russians and Angolans. Gaydamak was said to have returned to Moscow in February 2004, to take part in new negotiations related to Angola’s unpaid debt to the government.5

There are no allegations that Leviev was involved in the arms deals or the debt rescheduling, but his business association with Gaydamak received much negative publicity. In 2001 Leviev reportedly bought out Gaydamak’s interest in Africa-Israel for $75 million.
diamonds since the mid 1990s. This figure is likely declining because of the exhaustion of alluvial reserves due to years of uncontrolled digging. Smuggling will fall further if the government is able to control this sector.

Uncontrolled garimpo mining expanded for three reasons: 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 areas, and the government's inability to enforce administrative controls in the unstable diamond regions. Although garimpo 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.

In 1991 artisanal mining and the possession of diamonds by Angolan nationals were legalised and peace accords were signed. As a result, there was an influx of at least 50,000 illegal miners into the Lunda diamond provinces, with about $500 million worth of smuggled Angolan diamonds flooding the open markets and contributing to a major financial crisis for De Beers.

In October 1994, a new Diamond Act was passed, revoking the 1991 law, which had led to chaos in the diamond mining areas. A decision was reached to allow artisanal mining to continue, but to integrate the illegal mining and selling into the system, over time. Under this law, there is a framework for artisanal mining under license in special protected zones, allowing access to deposits that are not commercially viable for industrial-scale companies. Licenses were awarded by the state diamond company, Endiama. Mining companies were legally responsible for 'policing' the artisans who worked on the edge of their concessions, and for moving illegal miners out of their concession areas. If captured, they were handed over to the National Police, who reportedly often released them on payment of US$50.

Only local residents who have lived in the diamond areas for five years or more have the right to become artisanal miners. A license 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. This arrangement will remain the basis of artisanal mining under the new law, with miners working on the edge of company concessions. However, it is envisaged that there will be only small numbers of licensed artisanal miners, and that others will be employed by mining companies.

Whatever their origins and affiliations, for the miners diamonds are an escape from poverty and unemployment or a life of subsistence farming. All search for the big stone that will make their fortune. 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 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 that might contain diamonds – 'jewel-boxes' – in the rocky river beds.

The miners are in thrall to the patrocinador system – a supporter or middleman arrangement. The patrocinadores, who are mainly West Africans, fund the mining and buying operations, provide mining equipment, and sometimes food, medical supplies and other necessities. In return they buy the diamonds, or exchange 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, the patrocinador should pay the miner 50 per cent of the value of the diamonds.

Given reports of as many as 400,000 garimpeiros in Angola and the $252 million of artisanally-produced diamonds bought by ASCorp in 2003, each miner would on average have earned an income of US$351 if the patrocinador paid the amounts legally due. 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, however, lives on less than a dollar a day, roughly what the average miner might earn if he was treated fairly. In other words, fair prices – almost never enjoyed by the miners – result in a life of absolute poverty for most diggers.

It is clear that artisanal mining as it operates in Angola brings little economic benefit to local communities. It actually helps increase poverty through deflated diamond prices and "company store" prices for food and equipment. In addition, 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.

Although 10 per cent of 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. 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, except in the casino economy of illicit mining.

In the Lunda provinces, the UN Office for Humanitarian Affairs (OCHA) found almost 100,000 IDPs and estimated that a further 300,000 people in the region had been displaced by fighting in 2001.

**Expulsion of Congolese Miners**

The expulsion of tens of thousands of Congolese miners from Angola in 2003 and 2004 has created a refugee crisis and has brought issues around wildcat mining to the fore, as the government began to apply a military solution to the problems of illegal mining. It is estimated that there have been between 270,000 and 400,000 illicit miners in Angola during the last 12 years, at least 80 per cent of them Congolese by nationality. The numbers increased, following the end of the war in 2002. In December 2003, the FAA (Forças Armadas Angolanas), working with the national Police and Migration Services, was ordered to expel illegal aliens on the basis of threats to national security and territorial integrity.
The conditions of the expulsion resulted in a refugee crisis in the DRC, and strained relations between that country and Angola. The first major waves of some 25,000 illegal Congolese miners were expelled in 2003, followed by another 10,000 in February 2004. In April, the UN Office for the Coordination of Humanitarian Affairs (OCHA), reported the arrival of 68,000 exhausted Congolese in the DRC border provinces of Bandundu, Kasai Occidental, Kasai Orientale and Katanga. Estimates suggest that approximately 100,000 illicit miners had been expelled from Angola by mid-2004, less than a third of the estimated total.

UN agencies, Human Rights Watch and Médecins sans Frontières have publicized their concerns about abuses reported by returning miners, including rape, body cavity searches of both sexes for hidden diamonds, and general brutality. A human rights group, Voice des Sans Voix, or Voice of the Voiceless (VOV), raised the alarm over reported abuses soon after the first major expulsions took place. VOV reported that Angolan troops and civilians had subjected many of the Congolese to beatings and death threats.

Protests from the government of the DRC led to an agreement between the two countries that expulsions would be handled in a more co-ordinated and less repressive manner. Although the government of Angola has made it plain that the expulsions will continue, Angola has acknowledged that initially there was bad feeling in the area because local people had been dispossessed. The mine management improved relations with Sobas (local chiefs), began developing a school and a medical centre, worked with the local church to develop agricultural projects and is running a training centre for local workers so they can be employed in the mine, which had initially created 1,100 jobs. Although such projects improve conditions for the immediate communities, they are not sufficient by themselves to compensate for the overall lack of social development in the region.

Environmental Issues

Mining, by its very nature, significantly alters the landscape. Diamond mining is a large-scale earth-moving operation – at least a tonne of material is typically moved for less than a carat recovered. The material removed is stored in waste dumps. Diamond mining is also extremely water intensive, since water is used to wash the final gravels and separate the diamonds. Unlike other forms of mining, diamond mining produces little toxic waste. The only toxicity is through the use of dense media separation (DMS) chemicals, used in some treatment plants. Kimberlites present a different set of environmental problems. The Catoca Kimberlite mine was built to leave as small an environmental footprint as possible. At present, it uses mechanical crushers rather than dense media separation (DMS). The next stage of the project will use a DMS gravel treatment plant, however.

Environmental plans for future kimberlite mines in Angola, and any possible problems with the ores, are not yet known.

Mining environmental issues are regulated by Article 21 of Angola’s Mining and Geological law of 1992. Responsibility for protecting the environment, including water supply and vegetation, the wildlife and – not least – the health and safety of people who may be affected by mining operations, lies with the mining and prospecting companies. The law is not, however, specific in stating what practices are required from mining companies to achieve these ends, for example, environmental restitution at the end of the life of a project. These questions are covered – or not – in each company’s contract.

Mining and prospecting companies may pay indemnities if they are found to have failed in their responsibilities, and are subject to inspection by the Ministry of Geology and Mines.

Angola has a history of diamond mining stretching back almost 90 years, so the effects of long-term mining are a known quantity. As elsewhere, colonial mining companies did not institute environmental clean-up operations at the end of the life of a mine. It is possible to see the remains of old mining operations across most of the Lundas.

The most obvious environmental effect is that of diverting rivers to expose and mine diamonds in the rivers’ bedrock, a method of mining pioneered in Angola during the colonial era. This requires the creation of a canal and the damming of a short section of the river. At the end of the mining operation, the dam is, or should be, broken and the river returned to its bed. The remnants of many river diversions can be seen from the air, across the Cuango, Luachimo and Chicapa river systems.

Evidence of long-term detrimental impact on the riverine environment in the form of scientific
smugglers. The rivers tend to pollute the local water supply. The rivers also tend to kill fish stocks that feed local populations, and mining at the rivers' edges all displace mud. Diamond mining in rivers, small paddocks and sand dumped from them have turned vast areas into moonscapes. In properly run industrial operations, sand and gravels are formed into waste tips and can be revegetated at the end of mining. In unconstrained alluvial mining, however, has had the largest impact on the environment in the last decade. The thousands of pits and the sand dumped from them have turned vast areas into moonscapes. In addition, the washing of diamonds in rivers, small paddocks and mining at the rivers' edges all displace mud into the water and increase turbidity. This may kill fish stocks that feed local populations, and pollute the local water supply. The rivers tend to be fast-flowing and they do clear themselves, however a study of fish stocks in the rivers has not been undertaken.

The environmental impact of diamond mining in Angola needs to be properly studied before clear conclusions of effects beyond the cosmetic can be drawn. Certainly the development of other forms of mining that have a more toxic impact should lead to revisions of the minerals law.

Smuggling

Diamonds smuggled from Angola have provided a substantial proportion of world supply since 1991. Industry figures placed diamond production in Angola, including legitimate production, at close to $1 billion in 1996, although at that time, official exports were less than 15 per cent of this amount. In the absence of reliable statistics from diamond importers elsewhere, an accurate assessment of today's smuggling levels is not possible, but with over 300,000 illegal miners at work, there is no reason to believe that smuggling has not continued at relatively high levels.

Smuggling may, however, have declined in the last two years, with the end of the war and the exhaustion of the more accessible deposits. Greater illegal semi-industrial mining has been recorded, both in the Cuanjo and in Bié. While the mass deportation of diggers and buyers is aimed at reducing illegal digging and smuggling, the government's capacity to stop diggers returning is limited. Several mining operations, on whose fringes diggers may operate legally, have yet to move into their concessions. Cleared 'garimpo' areas are presently guarded by the FAA and National Police.

There is thought to be considerable smuggling from areas where there are no buying offices. ASCorp has an office in Bié only briefly and has concentrated its buying in the Lundas and Malange. Diamond from Bié and the south reportedly move through Namibia into South Africa. Apart from the absence of buying offices, there are two other motives for smuggling diamonds from Angola: avoidance of Angolan taxes, sometimes in favour of a country with lower taxes, such as the DRC, and avoidance of identification by the authorities.

ASCorp has not only paid the lowest prices it could negotiate, those selling to ASCorp were required to register with the authorities. With dealers outside Angola offering better prices, especially for larger stones, it is not surprising that smuggling continued. A new open market buying system will not make a significant difference without additional controls. The current worldwide shortage of rough diamonds will push prices up, and will likely encourage smuggling as dealers compete for supplies.

It is unlikely that Kimberley Process has had much effect on smuggling so far, because of the lack of internal controls in other countries. The UN Expert Panel identified Tanzania, Guinea, and the DRC as important routes for diamonds from Angola. Other destinations undoubtedly include the Central African Republic and Congo-Brazzaville. Smuggling directly into a cutting centre is another option, as is smuggling into a country which is not a participant in the Kimberley Process. A further complication relates to identification. Angola's diamond deposits straddle the border with the DRC, as do the smugglers. And better diamonds from the south of Angola can be hard to distinguish from Namibian gems.

Transparency and Corruption in the Diamond Sector

Corruption in Angola – placed in sharp relief by the country's oil and diamond wealth and by the contrasting terrible poverty of its people – has become a major focus of attention for many NGOs, journalists and governmental aid organizations. Detailed reports on corruption have been published in recent years by Global Witness, Human Rights Watch, Catholic Relief Services and others (although mainly with reference to oil). Transparency International has consistently placed Angola among the ten most corrupt countries in the world. The government of Angola has reacted angrily to these charges, saying that governance was negatively affected by the conflict and that it is just coming out of a 40-year war. A January article in The Economist, however, stated that "No one accepts these excuses any more".

As in Angola's oil sector, transparency in the diamond sector is also an issue for the International Monetary Fund. The IMF sees generic problems in the country's overriding lack of internal controls and its incomplete or inadequate accounting of central bank foreign assets and liabilities. The latter inevitably affects the diamond sector as the second foreign currency earner after oil. A weak statistical system was also identified as problematic. Membership in the Kimberley Process means that diamond export figures should be available quarterly, although as of mid 2004, Angola had provided no statistics to the Kimberley Process for any of the previous five quarters.

In accordance with an IMF agreement, a first phase diagnostic and feasibility study of Endiama was carried out by Price Waterhouse Coopers. Completed early in 2003, it provided Angola's Ministry of Finance with a technical and commercial overview of the diamond industry. Among the measures it was expected to address were monitoring and review of diamond production and revenues, procedures and structures in Endiama and the capacity of
Endiama’s partner companies. A separate audit of Endiama was also carried out. Endiama reviewed the initial report in July 2003, however progress in dealing with recommendations has been slower than expected.

Perhaps the most important issue relating to transparency and corruption recently has to do with reports that the President’s daughter, Isabel dos Santos, is a hidden shareholder in TAIS, one of the partner companies in ASCorp, and was said to be a shareholder in RDR, one of the main buying companies closed in 2000. Since TAIS is a Swiss company, its beneficial owners can remain hidden. Although Angola plans to open a stock market, there are well established methods everywhere for concealing the identity of shareholders in publicly quoted companies. The same problem of identifying ownership applies to mining concessions allegedly awarded to Futungoists – elite supporters of the government. Awards to companies with private military links and to Angolan companies run by former or serving FAA generals have also been severely criticised, though this appears to be a diminishing problem.

Both the UK-led Extractive Industries Transparency Initiative (EITI) and the NGO “Publish What You Pay” Campaign have focussed on publication of payments to government and state-owned entities, and on signing fees. In the diamond sector, signing fees to partner companies may be payable but are not always published. Where these are known, they have ranged between US$30,000 and US$200,000. Additional financing may come in the form of loans or consultancy fees from foreign joint venture partners to concession holders or mining projects. Publicly listed companies normally publish some details of project financing.

The Kimberley Process: Compliance in Angola

Angola was the first country to implement a certificate of origin system for diamond exports, following United Nations sanctions on UNITA’s diamond trading in 1998 and the launching of investigations in 1999. The first UN report on sanctions violations concluded that lack of meaningful controls within Angola facilitated UNITA’s trading of illicit diamonds, and recommended changes to the existing certificate of origin system. These were implemented at the beginning of 2000. The object was to make the exclusion of conflict diamonds verifiable, replacing the previous “wide-open system”. The country thus became a test case for diamond controls in government-controlled areas. ASCorp was established in 2000 to enhance compliance with UN sanctions, by providing a system that would tighten up Angola’s certificate of origin system, and ensure the exclusion of UNITA diamonds. The procedures were never fully implemented, however. They were monitored for their effectiveness by the UN, which ultimately concluded, in late 2002, that “existing controls fall far short of those envisaged for diamond purchases”.

With the ending of ASCorp’s contract in 2004, control of exports has now passed to SODIAM, which will be the principal player in this aspect of Kimberley Process (KP) controls. The Minister of Mines has stated that the change is part of a move to stop clandestine prospecting, in line with Kimberley Process requirements. The government has repeatedly stated its intention to become a KP pioneer in the effort to halt conflict diamonds, but the methodologies for achieving this have yet to be fully developed.

Under the new system, diamonds from the eight currently operating official mines are sent directly from the mines to SODIAM. Sales negotiations take place there between the companies’ valuators. SODIAM and Diamond Counsellor International, the official government valuator. SODIAM then exports the diamonds. Diamonds from the artisanal sector will now also be sold through SODIAM.

At present, however, there is no system for determining the origin of diamonds from this informal sector, beyond the records kept by buying offices – an incomplete paper-based system. The generic culture in this type of diamond buying is one of “no questions asked”, as the objective is to buy better diamonds at the lowest possible prices. However, if the government is successful in reducing the numbers of miners to its proposed level of 10,000, the sector will not be able to support many internal buyers, and regulation may be less difficult.

Proposed control mechanisms for artisanal miners have yet to be put in place, however. One of these will restrict small miners to the fringes of industrial mines. The mines will be responsible for controlling the miners. But it is not clear how deposits will be protected against re-occupation in areas where mining has not yet begun or in areas where no concessions have been awarded as yet.

Although it is intended that miners will be registered, it is not clear what controls and licenses are planned for the buying structures in order to establish a chain of warranties from the mine to the buying office. Prior to the ASCorp monopoly, many buying companies used middlemen who often worked on a sub-contracted basis, and who were not required to be licensed.

The Kimberley Process

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 are members. Under the terms of this agreement, each participating country 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 of origin.

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 mid 2004, Angolan statistics remained incomplete. A further general verification problem exists: monitoring, which must be universal in order to be effective, remains a voluntary arrangement in the KPCS. Although many countries have now volunteered for review visits, Angola is not one of them.
As part of the chain of control, ASCorp did license ‘collaboradores’ (sub-buyers) who were security checked and approved to ensure they had no UNITA linkages. Controls were never fully implemented during the life of ASCorp, however, and the license for the computer-based system for registering dealers expired in May 2003. The end of the registration system coincided with the end of the war and the lifting of sanctions, but it was also abandoned in favour of a more draconian solution to the problem: expelling illegal miners in advance of establishing any new controls. So questions remain as to how the new buying structures will be managed in order to establish the necessary chain of warranties, and whether diamonds will be bought direct from diggers, shortening the chain and permitting clear identification of the source of the diamonds.

A new body, gazetted in December 2003, is now responsible for implementing controls. The Corpo Especial de Fiscalização e Segurança de Diamantes (CSD) has a role which encompasses diamond security at every level of the system. The CSD reports to SINFO, Angola’s co-coordinating intelligence organ, rather than to the diamond authorities: Its wide-ranging mandate goes far beyond questions of smuggling and Kimberley Process compliance, and gives the CSD a crucial role in the diamond sector.

The policy during the war years was to legalize small miners, to license buyers, and to bring order into the diamond regions slowly, using non-military methods. This was only partially completed and may never have been fully possible, given the large numbers of illegal miners and buyers. The more draconian methods now being used, if successful, may help Angola to meet Kimberley Process standards. These come at a human cost, however, and it remains an open question as to how the new systems will work to control illegal mining and create a more secure, just and credible mining and trading environment in the process.

Notes

2 Council of Ministers Resolution 20/99, 26/10/1999 and Decree 7A/00 31/1/2000
3 Brendan Ryan, “Tangled in Angola”, Financial Mail, 1 August 2003
4 “Endiama apresenta provas contra a Dr Beers” Angop, 30 September 2003 and Polished Prices.com, 6 November 2003
5 Business Day (Johannesburg) 10 February 2004
6 Lei 16/94 dos Diamantes, Lei Sobre o Regime Especial Das Zonas de Reserva Diamantifera, both published 7 October 1994
7 UN Integrated Regional Information Networks April 21, 2004
8 Statement: “Angola pledges probe into alleged violence”, AP 17 February 2004
9 “Angola-DRC: Forced expulsion of Congolese results in backlash”, IRIN, 7 June 2004
10 Lei no 1/92 Lei das Actividades Geologicas e Minerais. 17 January 1992
11 The Economist, “The shameless rich and voiceless poor”, 22 January 2004
12 International Monetary Fund, Public Information Notice 03/114, 10 September 2003, Washington
13 See, for example, Time for Transparency: Coming Clean on Oil, Mining and Gas Revenues, Global Witness, London, March 2004

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Further information can be found at the following websites:
Partnership Africa Canada
www.pacweb.org
Mbendi – Angola Mining: Diamond Mining
http://www.mbendi.co.za/indy/ming/dmnd/al/a
n/p0005.htm

Global Witness
http://www.globalwitness.org
Institute for Security Studies
http://www.iss.co.za/Pubs/BOOKS/Angola
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