

In 1958, Sekou Touré rejected the proposal of General de Gaulle for Guinea to belong to an integrated French-led community, thus cutting all links between the then 'Pearl of West Africa' and the colonial power. The French, in the colonial period, carried out several studies and even began to exploit some bauxite deposits in the islands off the capital Conakry in 1952 but the widespread exploitation of the resources started only after they left. Blessed with more than a third of world bauxite deposits, often referred to as a 'geological scandal' Guinea's future looked bright, yet cursed by political mismanagement, today's Guinea rues its missed potential.

Guinea's dictator quickly understood the strategic importance of the country's geological assets and looked for foreign partners to develop them. Guinea opted for the Soviet camp, yet Sekou Touré, a pragmatist, invited both the communists and the Western powers to capitalise on the mineral potential of the young republic.

The Soviets chose a convenient location east of the capital, Conakry, in Friguia, and linked the site directly to the harbour at Conakry by a 145km railway. Began in 1960, this was to be the first ever on-site alumina refinery on African territory and started operations in 1973. A second bauxite mining facility at Kindia, OBK, (Office des Bauxites de Kindia) was created in 1969 with the aim of supplying the Nikolaev alumina refinery in Ukraine with Guinean bauxite.

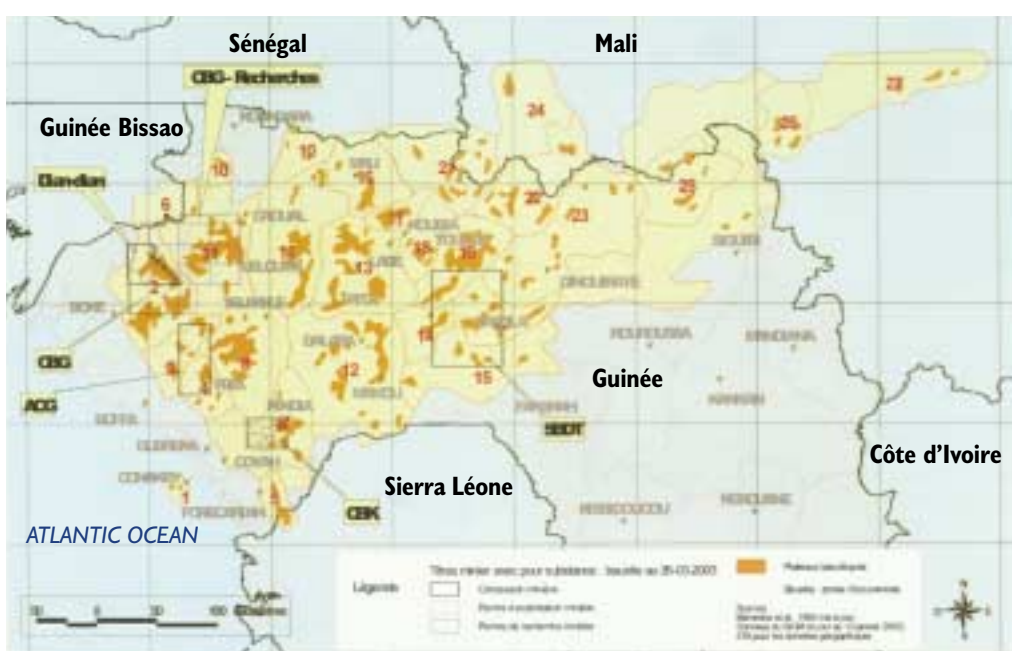
Around the same time, Sekou Touré entered into negotiations with a consortium of western companies to evaluate the country's Northwestern deposits, in the Boké region. In 1963, Alcoa, Alcan, Pechiney, VAW and Comalco, formed the HALCO group which accounted for 51% of a new semi-public company, 'Compagnie des Bauxites de Guinée' commonly known as CBG with the remaining 49% being owned by the Guinean government. Non-existent infrastructure hampered efforts to tap the geological anomaly of 63% alumina grade bauxite that they discovered in the Sangarédi deposit and not until 1973 were the first exports of Bauxite shipped.

Guinea then secured its predominant position in the industrial development of the aluminium industry with the creation in 1974 of the International Bauxite Association, seen at the time as the 'OPEC' of bauxite. The country, also known as the 'Water Tower of West Africa', was eager to capitalise on its unique hydro-electrical potential to develop other downstream projects, including aluminium smelters and become an integrated supplier.

Yet 30 years on, we have to recognise that whilst other players, such as Australia, Brazil and Jamaica, have successfully developed an integrated industry, the situation of the Guinean bauxite and alumina industry has remained stagnant. No new operators have joined the fray and no significant investment has been forthcoming.

CBG

CBG, with its steady 12.7Mt/y output, is still the behemoth of the Guinean industry being the largest employer and number one foreign exchange earner (accounting



Guinea: Transforming a geological scandal into an economic miracle?

Located on the coast of West Africa, Guinea has the world's largest share of known bauxite resources but its failure to develop infrastructure has hampered exploitation of the reserves and prevented the planned establishment of downstream smelters which could utilise the country's vast potential hydroelectric capacity.

BY SÉBASTIEN DELASNERIE* WITH THE PARTICIPATION OF AKOUMBA DIALLO**

for up to 70% of foreign currencies earnings). This makes CBG the world's largest bauxite exporter but its main investors have failed to develop any downstream activity in the country itself.

Much has changed within CBG over the past 30 years. Of the six original partners in the HALCO group, only three remain, with Alcoa and Alcan holding 45% each of the HALCO consortium. In June 1999, the company established itself as a limited company with management and technical operations being leased to Alcoa for a five year contract, due for renewal at the end of 2004 by the Ministry of Mines, Geology and Environment.

These changes resulted in greater transparency, management independence and a greater ability to carry out cost reductions. Such a programme commenced in 1997 aimed at maintaining a competitive edge on the global market. Times are getting tougher for CBG as the legendary Sangarédi deposit is now depleted thus necessitating changes in operations and export quality.

As Ron Renton, General Manager of CBG, puts it: "Sangarédi is a geological anomaly: in the early days of operations in Guinea we enjoyed a 63% grade, today we are struggling to deliver a 53% grade. Most of the bauxite in the remaining HALCO lease has an

average total alumina grade of 50%. So the only way we can deliver a 53% grade is by using 15 to 20% of Sangarédi bauxite with the other minerals we are currently exploiting."

Mr Renton expects CBG to be able to export its 53% alumina grade bauxite until 2015, maintaining exports of around 12.7Mt/y.

CBK

Meanwhile, the soviet-run facilities of OBK and Friguia have suffered from a lack of investment since the fall of the Soviet Union. In 2000 the assets of these companies were transferred to the newly born and ambitious Russian company, 'Russki Alumni' (RUSAL). In its bid to become the world leader in both alumina and primary aluminium, the company chose Guinea as its strategic partner. Meetings in Conakry and Moscow between RUSAL's President Oleg Deripaska and Guinean President General Lansana Conté ended in November 2000 with an agreement for the renovation and extension of the OBK deposits under Russian management and under the new name of Compagnie des Bauxites de Kindia (CBK). The second part of the plan involves the restoration and extension of the Friguia alumina refinery.

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"We are proud to be the partners of Guinea's development," says RUSAL's representative in Conakry, Anatoly Panchenko. This strategic partnership is reflected by the company's increasing role as a good corporate citizen, sponsoring cultural and sporting events in the country such as support for the fight against AIDs through the Henriette Conté, the First Lady's foundation and the organisation of the national football event, the 'President's Tournament'. So far, the newly born CBK has kept its promise with a steady increase in production, as Anatoly Panchenko proudly announces: "the launch of operation in the new Balandougou deposit increased reserves by a further 12.07Mt above the original 30Mt. This will help the company achieve its objective of a 3.8Mt/y export of bauxite by 2007 and raise the quality standards of the bauxite exported". Further down the line, the exploitation of the Kindia 2 project (Balaya, Kobélata, Féréfou) will coincide with the end of the life of the Kindia 1 installation.

In 2003, RUSAL also became the main shareholder of the Alumina Company of Guinea (ACG), following Alcoa selling its shares in this. ACG is Guinea's only operating alumina plant and RUSAL intends to upgrade facilities to enable them to keep up with the current 700kt/y alumina production. RUSAL is currently carrying the feasibility studies to double the current capacity to 1.4Mt/y.

Nevertheless, neither the changes in structure nor the coming of RUSAL as ACG's white knight can hide the fact that Guinea has failed to capitalise on its existing "20 billion tonnes deposits of exploitable bauxite" as Dr Alpha Mady Soumah, Minister of Mines Geology and Environment laments.

The reasons put forward by international observers for this failure are the lack of infrastructure, the high cost of operations in Guinea, the low productivity and high cost of Guinean workers, and the lack of a stable legal environment in which to operate.

However, this may soon be about to change as the complementary logics of operators following the global trend of building on-site refineries, and the Guinean government desire to benefit in terms of investment, employment, taxes and infrastructure, mean that both share a common goal: the establishment of alumina refineries on Guinean soil.

The Boké-Sangarédi-Kamsar region where CBG operates, could well be the next 'Alumina Eldorado' of the country, as it offers the best development possibilities. Enjoying seemingly endless reserves of low silica good quality bauxite, with an average 50% alumina grade, it is also located near the sea. Crucially, CBG, with a lease running until 2038 and exportable bauxite being exhausted around 2015, needs to find a new role in the country's future. Ron Renton puts it lucidly: If you make the assumption that CBG will go on exporting 12.7Mt/y of the highest grade it can manage, what is left behind is clearly not export grade bauxite but definitely is a very good feedstock for local refineries. It would make sense for CBG to be the supplier of choice of regional greenfield refineries



because it would reduce the investment and, in a sense, risk for those units, as we can share some of the existing CBG infrastructure and facilities.

GLOBAL ALUMINA

Operators are now queuing up. The most advanced project is that of New York based Global Alumina refinery project in Sangarédi. Started in July 2001 under the mandate of former Minister of Mines Ibrahima Soumah, the \$2 billion project consists of a greenfield alumina plant with a capacity of 2.8Mt/y, as well as the upgrade of existing railways, ports and housing infrastructures of the CBG facilities. The project also includes co-generation of power from coal and petroleum coke as opposed to heavy fuel, and Global Alumina is currently negotiating a bi-lateral coal/ alumina shipment with the Republic of South Africa.

Global Alumina, far from being an integrated aluminium company, is an ingenuous result of a meeting of minds amongst financiers and the conclusion among investors that, as Leonard Jacob, the General Manager in Conakry puts it "Guinea is a pretty good candidate at this time and juncture of the market." In this regard, timing was critical and based on predicted alumina shortages on global markets. "If we can get this project started as we plan to this year, we will be very well placed in the critical years ahead." High alumina spot prices, currently up to US\$500/t, will allow a good amortization ratio on the project and on this basis, some of the biggest names in banking such as Mitsubishi and Marubeni (who are already bringing 45% of the required capital), and partners such as RBC Capital Markets, CGMI and Citigroup are currently working to gather the necessary US\$2 billion. Bruce Wrobel, President of Global Alumina announced in October that "The project already mobilised \$600M, and benefits from \$240M from the Toronto stock exchange".

Mr Leonard Jacob, former GM of Friguia and current manager, explains the logic of the project: "the fundamentals are here. First Guinea contains a third of the world resources in exploitable bauxite. Secondly the site locations, situated less than 200km from the sea, make it easy to ship."

Work is in progress and on time, which, in Guinea, is a feat in itself, and the company plans to start construction in the second quarter of 2005 and aims for the plant to open by 2008 with an expansion potential of 1.4Mt/y, should the market – principally in China – require such volumes. Also, thanks

CBK's deposits are linked to the port of Conakry by a 147km railway

to the use of the latest technologies, the refinery is designed to be one of the lowest cost units in the world, "certainly in the top six or seven" proudly adds Leonard Jacob.

NEW INVESTORS

The possibility of such a project, based on CBG land, revived the interest of HALCO's main investors, Alcoa and Alcan in developing an alumina refinery in Kamsar, right by CBG's port infrastructures. The alumina refinery would have a capacity of 1.5Mt/y, and if the implementation goes to plan, production could start in 2008. Negotiations have been on going since September, and agreement was meant to be reached in November. However, the former Minister of Mines, Ibrahima Soumah called on Alcan and Alcoa to join the Global Alumina project to help speed up the process.

On their side, the Russians will not limit their investments to the Fria-Kindia region and want their fair share in the new Alumina Eldorado.

"The project of the Century" in the words of RUSAL's President Oleg Deripaska, was transferred in June 2004 to RUSAL after the supreme court of Guinea broke the agreement made between former Minister of Mines, Facinet Fofana and the UAE based OFFSET Group in 1998. Known as Dian Dian, the project includes the construction of a mine, an alumina refinery with a capacity of 2.4Mt/y and a feasibility study for an aluminium smelter of 240kt/y on the bauxite deposits of Dian Dian, North of Boké.

Reserves are evaluated as follows:

	Estimated	Proven
Dian Dian I (Sinthourou)	567Mt	222Mt
Dian Dian II (Dian-Dian)	466Mt	167Mt
Dian Dian III (Ourobé)	371Mt	175Mt

The zone, originally on the HALCO-CBG lease is being transferred to RUSAL which still implies some definite settlement of the land and asset situation. The project is valued at US\$2.5bn and the Worley cabinet is currently carrying out the feasibility studies for an additional mining port and railway. RUSAL has announced it will finance 50% of the budget with the Guinean government's financial participation still under negotiation.

CHINESE INTEREST?

The opportunities Guinean bauxite offers ▶



Guinea's 280km of railway consists of two lines both for alumina export



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have also aroused the interest of the Chinese, to whom most of the Guinean alumina is shipped. Earlier this year, China Aluminium Company (CHINALCO) representatives caused a stir with visits to several Ministry of Mines officials. The delegation visited various sites in the country and looked very interested by the Dabola Tougué site, North East of Conakry. However, they have not yet made good on their visit by taking any official position.

Guinea is now catching up on its competitors and very aggressively entering downstream activities. With a brownfield project for ACG/Friguia, two greenfield alumina plants totalling between the two of them 5.7Mt/y worth of production by the end of the decade, and an extra 2.4Mt/y when Dian Dian is operational, Guinea hopes to win back its place at the high table of aluminium producing countries.

Still, Guinea has not abandoned its old ways and two main obstacles remain to the development of downstream activities especially in the aluminium sector. Firstly, infrastructure remains poor as RUSAL's Anatoly Pantchenko describes "all agreements signed in recent years with the Guinean Government confirm that the establishment of the infrastructure needed will be an obligation of the investor, which indisputably has an impact on the amortisation of the projects to be executed."

Most of the existing infrastructure is left over from the by-gone age of French colonial rule. Since independence in 1958, most of the works undertaken have been in maintenance, with a few exceptions such as on the road connecting Conakry to Boké, the alumina capital of Guinea where a bridge over the Konkoré River has been built.

The country also lacks railways – the only operating railways are the 145km Friguia line from the refinery to the Conakry port terminal and a 136km line for CBG – to bring bauxite, alumina or, later, aluminium to the harbours, and to unlock the bauxite potential in the forest region, cut off from the sea by the still impassable Sierra Leone and Liberia.

HYDROELECTRIC

Another long-standing problem, which has handicapped the development of aluminium smelters, is the inability of the Republic of Guinea to extract value from its extraordinary hydroelectric potential. Out of 6000MW potential, the 'Water Tower of West Africa' has used a mere 3% of its potential with the building in co-operation with the Agence Française de Développement of the Garafiri dam in 1999. The 75MW it generates may be harnessed for domestic use but is insufficient for an aluminium smelter. Neither will the added power from the proposed Cogon (75MW) and Fomi projects (90MW) go far to solve the needs of an aluminium smelter.

Nearly half of the electricity produced in Guinea comes from industrial producers, mainly CBG and CBK who use most of the power they generate. There is great potential with the proposed 975MW dam in Souapiti Kaleta but the displacement of a population of 50 000 is deterring international financial institutions such as the world bank.

As the saying goes "where there's a will, there's a way" and there is no reason why

MINING SECTOR INTERNATIONAL FORUM 2004. 11-13TH OF OCTOBER BEL AIR

The three days International Mining Forum took place in the Bel-Air Hotel, near Kamsar where 250 participants exchanged their views on the regional and Guinean Mining sector and its regulations.

The result will leave both international visitors and Guineans with mixed feelings. The forum, designed to seduce new investors, was in this regard, a failure. The disastrous organisation prevented a fair share of participants from staying for the full three days.

Yet, the slippery path where Guinea was heading seems to have become a little more navigable, offering some encouragement to those companies already active there.

The re-negotiation of the existing mining convention is no longer evoked, and the massive revision of the mining code is now referred to as a 'Toiletage' (makeover).

The Guinean government is now concentrating on what most operators were calling for: a stricter and more consistent application of the existing regulatory framework.

Finally, Global Alumina took advantage of the Forum to sign its convention and lay the foundation stone of the mining port in Kamsar, finally making the downstream development of the industry a fragile reality.

Guinea could not catch up with Australia, Brazil or Jamaica, if private operators and government members define and implement a common strategy together. Unfortunately, this is where continuing weakness lies as the 'wills' all point in different ways.

MINISTERIAL ABRASION

After the edition of a new mining code in 1995, the Guinean government, in order to be more transparent, and offer more attractive conditions to the mining operators, took a decision to disengage from both the capital and the management of the main aluminium related companies (CBG, SBK and Friguia) resulting in management contracts with internationally recognised operators.

However, the price to pay in lost revenue makes the Guinean Government doubt the value of such a strategy and to look for ways to replenish their empty reserves of foreign currency. The Minister of Mines, Alpha Mady Soumah regrets the decision that

resulted in the annual state income from mining plummeting from \$260M to a mere \$60M. He laments: "Giving up the direct management of the mining companies took away the possibilities of control in our Governmental role as well as our shareholder role. We totally lost control of these companies and of mining sector revenues."

However, Dr Soumah's cavalier attitude is not necessarily helping the Guinean mining sector.

The task ahead is vast and in order to tackle the number of issues that the Minister wants to address, two areas of action have been mapped out:

- a tidying up of the existing mining code, which was previously re-written in 1995;
- a broad re-negotiation of the existing mining conventions.

The goal of this new mining policy for Dr Soumah is to 'guarantee the equilibrium between the maximisation and sustainability of the mining incomes for the state' as well as to 'promote the development of downstream activities'.

In a desperate attempt to salvage a deteriorating situation, the President himself, General Lansana Conté convened an extraordinary meeting in the Presidential Palace with mining operators and project representatives on the 8th of October. He publicly regretted the lack of co-operation and the tense relations between operators and the Ministry and he apportioned blame to Guineans heading the Department. The meeting, though easing tension before an International Mining Forum (see box), was not a complete success. The legal environment remains fragile and the rule of law is still regularly bent to favour the interest of powerful individuals. The General-President, in power since the 1984 coup, is known to consider Guinea as his country, the Ministers as his Corporals and the Guinean soil as belonging to the Guineans. The European Union and World Bank suspended aid and multi-million Dollar funding in a call for greater transparency, legal stability and political openness.

The drama is not finished as this article goes to print; and there is no doubt that many other acts will follow starting with the political future of Dr Soumah, the Alcan Alcoa refinery in Kamsar, the new mining code, and the uncertainty of the existing conventions.

But Guinea is Guinea and though it has always been tumultuous; this has not prevented companies from operating there and turning a profit. Guinea is a land of opportunities, with hard rules to play by.

The 2004 International Mining Forum in mid-October (see Box) and the modelling of the new mining policy are central to the future success of the downstream industry in the country.

As Guineans say 'If Africa is the school of patience, then Guinea must be the University.'