

Africa: Mining - Overview

Africa produces more than 60 metal and mineral products and is a major producer of several of the world's most important minerals and metals including Gold, PGE's, Diamonds, Uranium, Manganese, Chromium, Nickel, Bauxite and Cobalt. It is interesting to note that Africa's contribution to the world's major metals (copper, lead and zinc) is less than 7%. As a result silver production is low (less than 3% of the world's production) due to the fact that most silver is produced as a by product of lead - zinc and copper mining. Although under explored, Africa hosts about 30% of the planet's mineral reserves, including 40% of gold, 60% cobalt and 90% of the world's PGM reserves - making it a truly strategic producer of these precious metals.

The increase in exploration and mine development in Africa has been primarily focused on gold and diamond exploration. Undoubtedly, there is still great scope for these commodities, but riding on the back of improving base metal prices, this sector could see an increase in activities. Mozambique, Nigeria and Madagascar are but a few countries that have tremendous potential for base metal and industrial mineral deposits.

South Africa, Ghana, Zimbabwe, Tanzania, Zambia and the DRC dominate the African Mining industry, whilst countries such as Angola, Sierra Leone, Namibia, Zambia and Botswana rely heavily on the mining industry as a major foreign currency earner. Unfortunately, several African civil wars are funded by (and often caused by) some of these commodities, in particular diamonds.

Major new mines opening in Africa or under development are distributed between South Africa, Namibia, Botswana, Tanzania, and Gabon producing gold, diamonds, niobium products, PGE's, chrome and base metals. Major discoveries over the last year include the discovery of several potentially diamondiferous kimberlites in Mauritania, and still in the diamond scene, the potential marine deposits in offshore southern Namibia.

Botswana now open for business - specific opportunities exist in the following industries: Leather, Textiles & Apparel, Automotive components, Jewellery, Pharmaceuticals, Mining, Printing & Publication, Packaging, Plastic and Beef products. Contact [Botswana Export Development & Investment Authority \(BEDIA\)](#)

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For detailed and up-to-date information about the global mining and minerals industry, buy the [country](#) and [commodity](#) reports of your choice, published by [Mining Communications](#).

For more information on business in South Africa, buy the [South African Business Digital Guidebook](#) published by [WriteStuff Publishing](#). This A-Z business resource, with an investment focus, provides a synthesis of key reference and resource information regarding doing business in South Africa. It

contains condensed information across a comprehensive range of subjects and sectors that are useful for corporate business, entrepreneurs, government and academic researchers

The [Industrial Development Corporation of South Africa](#) is a self-financing, national development finance institution focusing on contributing to economic growth, industrial development and economic empowerment through its financing activities.

The IIC is organising the [African Mining Indaba 2006](#).

The Mining Communications is Organising the [Mines and Money London 2006](#).

The [African Resource Network](#), comprising some of Africa's leading consultancies in their fields, provides a unique one-stop [African information / intelligence / research / advisory service](#) via the Internet to companies and business-people around the world with an interest in doing business in Africa.

[Africa Project Access](#) provides specialist consulting services and information regarding projects in Africa. The company publishes a monthly newsletter, *Africa Project Newsletter*.

The [CEF \(Pty\) Ltd](#) is the South African government's holding company in the petroleum industry. [CEF](#) is mandated by the state to engage in the acquisition, exploitation, generation, manufacture, marketing and distribution of energy from and to engage in research relating to the energy sector.

The Regal Exchange & Associates is organising [Banking Corporate Governance](#).

[The CWC group](#) is hosting the [Nigeria Oil & Gas 2005 Conference](#) .

[Cotnet - The Virtual Cotton Trading Floor](#) is an on-line cotton trading facility.

[The Truth About Oil & the Looming World Energy Crisis](#) published by [The Association for the Study of Peak Oil](#) addresses the topic of Peak Oil in a novel and refreshing way.

Zimbabwe - Mining: Iron Ore Mining

- Overview

In 2003 Zimbabwe produced 366 737 t of iron ore compared to 271 812 t in 2002. The Zimbabwe Iron and Steel Company (ZISCO) control iron ore mining and beneficiation in Zimbabwe. Subsidiary BIMCO (Buchwa Iron Mining Company) currently exploits the Ripple Creek mine, which provides iron ore and limestone as feeds to the ZISCO steelworks situated in the town of Redcliff in central Zimbabwe. The ZISCO steelworks are sub Saharan Africa's second largest steel industry (after South African ISCOR). Iron ore production has dropped dramatically, with 2001's production at 361 000t, down from 2000's 450 000t.

The government has declared the loss making Zisco a strategic company and has contracted Chinese and German companies to help turn it around.

Uganda - Mining: Iron Ore Mining - Iron Ore

Overview

Historically, Uganda's iron ore industry has been a significant contributor to the country's mining sector, particularly in the 1960's. Iron ore occurs in two areas, hematite ore of the Muko deposits in Kabale and Kisoro districts and the magnetite bearing ore at Sukulu and Bukusu in Tororo district. The Sukulu deposits are estimated to contain reserves of 45 Mt grading at 62 % iron and 2.6% phosphorous. Bukusu is estimated to contain 23Mt iron ore that also contain a high titanium content of 10 - 15 %.

Liberia - Mining: Iron Ore Mining - Overview

Iron ore mining and beneficiation was at one stage Liberia's economic mainstay, contributing as much as 64% total exports which provided nearly 25% of the country's GDP. However, the civil war that broke out in 1989 halted production from nearly all of the iron ore facilities. Liberia had five major iron ore deposits (Bomi Hills, Mano River, Mt Nimba South, Tokadeh and Bong mines). Of these most of the high grade iron ore (>65% Iron) has been mined. However, several large tonnage's (for example at the Bong deposit – 300 Mt at 37% Fe) of medium to low grade iron ore (30 – 60% Fe) exist.

Recent studies by SRK (South Africa) have highlighted a high grade ore deposit in neighbouring Guinea. The Pierre Richaud deposit apparently contains 463 Mt at a grade of 65% iron and is located very near the border between the two countries. It is anticipated that minimal capital injection would be required due to existing infrastructure in Liberia.

The Mifergui iron and steel project on the border of Liberia and Guinea was mined extensively in the past and produced 13 million tons a year at 60% iron. Reserves are estimated to be four billion tons of low phosphorous content ore. Some of this deposit extends 30 km onto the Guinea side of the border. A feasibility study is underway to increase the exploitable iron ore tonnage to 25 million tons a year. The rail line from Mifergui to the coast of Liberia would have to be rebuilt. The Buchanan harbour would also have to be deepened. Other alternatives include a slurry pipeline through Sierra Leone.

Angola - Mining: Iron Ore Mining

- Overview

Iron ore deposits have been identified at Kassala-Kitungo and at Cassinga, however, production at Cassinga ceased as a result of low world prices and the destruction of the railway to the coast (Benguela port) during the civil war. The state iron ore company, Ferrangol, was established in 1981 to oversee government plans for the rehabilitation of the Cassinga mine. Rehabilitation work was largely completed by 1986, but mining did not resume pending rehabilitation of transportation systems. The deposits at Kassala-Kitungo are estimated to contain 100 million tons of low to medium grade (35 – 40% Fe) iron ore. Japanese investors have shown interest in the development of a direct reduced iron plant using Cassinga ore as a main stock feed.

Côte d'Ivoire - Mining: Iron Ore Mining

- Overview

Poor infrastructure is curtailing plans for Cote d'Ivoire's large iron ore reserves, also situated inland. The vast iron ore deposits at Mount Nimba and Mount Kalayo, in the western border area, estimated at 3 000 Mt, have attracted little attention due to the grade of the deposits, estimated at averaging 40% iron. However, recent negotiations to develop a gas pipeline to service an iron ore pelletising plant on site has been discussed with Normandy Mining, SODEMI and a Chinese investment group. There has also been talk of a rail link between Mount Nimba to the port of San Pedro.

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Guinea - Mining: Iron Ore Mining

- Overview

Iron ore is not currently mined in Guinea however, the country does have significant iron ore reserves, although infrastructure could be a problem as the deposits are located in the south east of the country, close to the border with Liberia. Rio Tinto is investigating Simandou deposit, estimated to be one of Africa's largest iron ore deposits. Rio Tinto signed a 'Convention de Base' with the government in December 2002 for a 50-year mining licence to develop the mine. The Simandou Range comprises of high grade (65% iron content) hematite with resources estimated at more than 3 000 Mt.

Other major deposits include the Mount Nimba deposits (1 billion tons) and the Mifergui deposit. There are plans to mine and export iron ore from the Mifergui project provided that the ore can be railed safely to the Liberian port of Buchanan. The Liberian (20%) and Guinean (20%) governments and the Euronimba consortium (60%) comprising La Source (50%), BHP Billiton (30%) and Sumitomo (20%), are the shareholders in the 246 million ton Mifergui iron ore project on the Guinean side of the Nimba Mountains.

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Mauritania - Mining: Iron Ore Mining

- Overview

Mauritania's iron ore reserves are estimated at 155 Mt of hematite ore ranging from 60% to 68% iron and 531 Mt of magnetite ore ranging from 36% to 40% iron. Mauritania produced 10.1 Mt of iron ore in 2003 compared to 9.6 Mt in 2002. Iron ore production and beneficiation is controlled by Société Nationale Industrielle et Minière (SNIM) in the Tiris province in northern Mauritania. Iron is by far the most widespread metal in the country. It occurs in several geological formations, particularly in the Precambrian crystalline Regueibat Shield. The three main areas containing iron-ore deposits are Tiris, Sfariat and Tasiast. The deposits owned and mined by Société Nationale Industrielle et Minière de Mauritanie (SNIM) are located within Tiris and the mines are at Idjill Kédia, M'haoudat and Guelbs.

SNIM's traditional market is Europe. Recently, foreign mining firms have shown an interest in Mauritania's iron ore, either in joint venture with SNIM or independently. Australian-listed Sphere Investments Ltd has an option to earn a 50% interest in SNIM's Guelb El Aouj project by spending US\$11 million on a three-year feasibility study. El Aouj possesses a resource of some 500 Mt at 37.5% Fe, and the project envisages a beneficiation plant on the coast at Nouadhibou capable of producing super, high-grade pellet feed, with an Fe content of 70%. Early in 2003, the South Africa iron-ore producer, Kumba Resources Ltd, acquired an option to earn into Sphere's interest..

Nigeria - Mining: Iron Ore Mining

- Overview

The state owned National Iron Ore Mining Company operates the Itakpe iron ore mine which has an annual capacity of 5.5 Mt per year. The beneficiated product contains 64.7% Fe.

Senegal - Mining: Iron Ore Mining

- Overview

In 2004 South African Miner Kumba Resources Limited signed an agreement with Miferso, a Government of Senegal-owned project development company, granting it the right to conduct and develop a pre-feasibility study on the Faleme iron ore project situated in the south-eastern region of the country. Kumba will conduct limited exploration during the 10-month pre-feasibility study to prove that the mineral resource can support at least a 20-year life of mine with a sustainable 12Mtpa production output.

The Faleme project consists of three elements, namely a mine and associated infrastructure; a 741km railway line of which 311km still has to be constructed; and a new deep-water port for iron ore exports to be developed near Dakar.

The preliminary capital cost is estimated at US\$950 million and will be split between the mine and port handling facilities (US\$306 million), the railway line and rolling stock (US\$537 million), and the new deep-water port (US\$107 million).

South Africa - Mining: Iron Ore Mining

- Overview

Anglo American announced that it had acquired a 9.6% interest in Kumba Resources with the option to acquire a further 20.9%. In September 2003 Anglo's interest in rose Kumba rose above 35% following the approval of the competition authorities. Kumba has been benefitting from Chinese demand - exporting an annual 20Mt of iron ore of which 9Mt goes to China. In 2003 35,778,633 t of haematite were produced as well as 2,307,222t of magnetite and 39,941t of lead metal in concentrstes.

South Africa has 9 billion tons of iron ore reserves, of which 45% is located in the Northern Cape, adjacent to the massive Kalahari manganese field. South Africa is Africa's largest iron ore producer and is dominated by the South African Iron and Steel Company, Iscor. Following Iscor's unbundling in 2001, Kumba Resources has emerged as the new vehicle for Iscor's mining aspirations. Iscor Ltd retains its name as the iron and steel producer, producing both flat and long steel products from its facilities at Vanderbijlpark, Saldanha, Vereeniging and Newcastle. Kumba produces approximately 28 Mt/year from its two mining operations at Sishen in the Northern Cape and Thabazimbi in the Northern Province. Thabazimbi generally provides iron ore (2 389 000 tonnes in 2003) for Iscor Limited's steelworks in Vanderbijlpark and Newcastle, whilst the bulk of Sishen's production is exported via the Saldanha - Sishen railway to the West Coast port facility of Saldanha Bay. Rail capacity of the Sishen - Saldanha line is to be boosted to 38 Mt by the year 2010.

Sishen is a large open cast operation with pit dimensions of 12km by 1.5 km at an average depth of 375m. At current production, the mine has a life of mine of 40 years, although the mine is undergoing a \$90 million expansion project to increase production from its current 24 Mt to 27 Mt by 2010. It aims to do so through the exploitation of the Welgevonden deposit (now called Sishen South), located 60km south of the existing mine at Sishen. Sishen South is anticipated to begin production in 2006, adding an additional 2 - 3 Mt to the anticipated Sishen output of 25 Mt.

Assmang is South Africa's second biggest iron ore producer and has a single iron ore mine at Beeshoek, which has recently been expanded onto a neighbouring property, Olynfontein. This expansion has extended the life of mine to an additional 14 years. Assmang's export production is earmarked to reach 5.5

Mt (out of an anticipated 6 Mt total), with a view to expand production to 10 Mt by 2010. Assmang's current operations are well positioned to take advantage of its proximity to the Sishen - Saldanha rail link. In 2003 the company reported a decrease of 97% in first half profit due to a stronger rand. Net income for the six months ended December 2003 fell to R4,1 million from R137,5 million.

Highveld Steel and Vanadium operate an iron ore mine at Mapochs.

● **Participating Organisations**

[Assmang Limited](#)

Assmang operate the Beeshoek iron ore operations, located in the northern Cape, near Sishen.

[Kumba Resources Ltd](#)

Kumba is South Africa's and Africa's largest iron producer and exporter, operating facilities at Sishen and Thabazimbi.