

MINING REVIEW

ISSUE NO. 28

August 2015

The Voice of Mineral Sector in Malawi

Order price MK200

Proudly
Sponsored
by



MALAWI GOVT. WORLD BANK GROUP



EUROPEAN UNION



Standard Bank
Moving Forward™



RAKGAS L.L.C.



SHAYONA CEMENT CORPORATION

Advertisers



Atlas Copco



Farming & Engineering Services Limited



Mahindra



ROYAL MOTORS



CAMCO



Ecology & Mining
Chiwandama
Geo-Consultants



Geo-Consultants



Cration Resources Consultants

Malawi tables mining prospects to investors

- US\$1-Billion Kangankunde deposit marketed
- Kanyika negotiations take new twist

By Marcel Chimwala

The Malawi Government is marketing mining projects to international investors in its quest to develop the budding sector and ensure economic diversification for the country which largely depends on agriculture as the major driving force for the economy.

According to a compendium of projects launched by State President Professor Arthur Peter Mutharika and presented to investors at this year's Malawi Investment Forum, Malawi has lined up the Kanyika Niobium Project in Mzimba, Songwe Hill Rare Earth Project in Phalombe, Mulanje Mountain (Chambe) Rare Earth Project, Kangankunde Hill Rare Earth Project in Balaka, Block 1, 2 and 3 Oil Exploration Projects in the Northern Region, Mulanje Mountain Bauxite Project and the Chimutu Graphite Project in Lilongwe as some of the potential projects for the country that investors need to seriously pursue.

"These projects are among the exciting mining projects that investors have to consider. Government is inviting private investors to consider seriously exploring what Malawi has to offer and ultimately establishing mining projects in the country," says Professor Mutharika, who officially launched the Investment Forum, in a speech contained in the compendium.



Mutharika and former UK Premier Gordon Brown in US where the Malawi leader wooed investors at Corporate Council on Africa Business luncheon at Grand Hyatt Hotel in New York

cont. on page 3

INSIDE



Malawi applies for EITI 'Candidature'

Pages 2



Globe Metals to develop modern town at Kanyika

Page 4



Mining investors ask for incentives

Page 8



FARMING & ENGINEERING SERVICES LIMITED

P.O. BOX 918 | BLANTYRE | TEL: 01 879 111 | FAX: 01 879 088
P.O. BOX 64 | LILONGWE | TEL: 01 754 988 | FAX: 01752 949
EMAIL: fes@fesmw.com | WEBSITE: www.fesmw.com



MALAWI'S SOLE DISTRIBUTOR OF **KOMATSU** & *Challenger* SALES, RENTAL & AFTER SALES SUPPORT

Malawi applies for EITI 'Candidature'

By Chiku Jere

The Malawi Government has finally applied for Extractive Industries Transparency Initiative (EITI) candidature to ensure transparency and accountability in managing mineral revenue.

Chief Economist for the Ministry of Finance, Mr. George Harawa, tells *Mining Review* in an exclusive interview that the government has lodged the application after satisfying all requirements to join the grouping, which started with a commitment by State President His Excellency Professor Arthur Peter Mutharika during his inaugural State of the Nation Address of June 17th, 2014.

Mutharika, who has been at the forefront marketing Malawi's Mineral Wealth to investors during his international escapades, has since his inaugural speech been championing the EITI course that will ensure that benefits from mining trickle down to the local masses.

EITI is an international initiative targeted at promoting revenue transparency in the extractive industries as one way of enhancing good management of benefits from natural resources.

Malawi has since nominated Hon. Goodall Gondwe as Acting National EITI Champion as per mandatory requirement for a particular country's EITI candidature.

The country has in place a multi-stakeholder group comprising Mr. Chrispin Kulemeka who is the Director for Revenue Division in the Ministry of Finance, Mr. Charles Kaphwiyo the Commissioner for Mines, Mr. Bartwell Chingoli of the Reserve Bank of Malawi, Mr. Charles Maseya Deputy Auditor General at the National Audit Office, Mrs. Martha Khonje Country Director for Actionaid, Mr. Reinford Mwangonde Executive Director for Citizens for Justice, Mr. Success Sikwese Project Officer Extractives Catholic Commission for Justice and Peace, Mr. Kossam Muthali Executive Director Foundation for Community Support Services (FOCUS), Mr. Greg Walker General Manager Paladin Africa, Mr. Neville Huxhum Executive Manager Globe Metals and Mining, Mr. Misheck Munthali Director Bwanje Cement Company and Mr. Burton Kachinjika Country Director Mkango Resources Limited.

Committing to this global transparency initiative implies that Malawi has subscribed to the idea on the need to promote improved data and dialogue in natural resources governance.

After the confirmation of the candidature, Malawi will have 18 months to submit the first EITI report of contextual information on the extractives sector in Malawi and data on revenues, licences, production, exports and contribution

to the economy.

The report will have to include companies' published payments and government receipts and it is used as a tool to improve extractive sector governance by identifying challenges and weaknesses, and defining priorities for natural resource management through reformatory dialogue.

The EITI Standard lays out seven requirements on how to report activity in the oil, gas and mining sectors along the value chain of extracting a resource turning it into public benefit.

By virtual of pledging to adhere to the EITI Standard through the submission of the application, Malawi has now become a 'candidate' and it has 2.5 years from the date of admission as a candidate to meet the requirements to attain 'compliant' status which guarantees membership.

According to EITI Fact Sheet 2015, so far, 48 countries implement EITI, 31 comply with the requirements, while 17, are just 'candidates'.

Countries are assessed every three years and can be suspended from the transparency standard at any time the member country fails to fulfil the requirements.

Among the seven requirements of the EITI Standard are effective oversight by the multi-stakeholder group, timely publication of EITI reports, the production of comprehensive EITI reports that include full government disclosure of extractive industry revenues, and disclosure of all material payments.

The country is then evaluated independently, and if deemed to have met the EITI requirements for transparency, becomes 'compliant'. From then on, countries are assessed every three years and can be suspended from the transparency standard at any time.

Reports indicate that implementation of EITI by other countries has led to a wide range of benefits such as improved tax collection and budgetary planning as well as improved governance systems which enhanced citizens' trust in government.

It is also said that adherence to EITI Standard levels the playing field as all companies are required to disclose the same information hence operating on same rules.

Further reports say that through the initiative, companies also benefit from improved and more stable investment climate which is ushered by open and effective engagements with the citizens and civil society. On the other hand, citizens benefit from receiving reliable information about their country's natural resources which enables them to hold the government and companies to account.

This far, the Malawi government has introduced



Hon. Goodall Gondwe: Malawi's EITI Champion



Lyddia Kilpi: EITI Conference Manager

reforms as well as effected some relevant policy changes and projects to do away with investment constraints in keys sectors, the mining sector inclusive.

In May this year, EITI International Secretariat's Conference Manager, Lyddia Kilpi, visited Malawi as part of the required EITI membership process.

During her stay she fulfilled several engagements, which included conducting a stakeholders' workshop and participating in the second EITI Multi-Stakeholder Group (MSG) meeting, whose members include government, industry and civil society representatives, independently elected by their respective constituents.

Kilpi also had audiences with the Minister of Finance, Economic Planning and Development, Honourable Goodall Gondwe, as well as the Minister of Natural Resources, Energy and Mining, Honourable Bright Msaka SC.



Durable and Affordable

CAMCO EQUIPMENT LIMITED

Cell: 0999-888678 0888-851888
 Tel/Fax: 01-842546(BT) 01-754680(LLW) E-mail: malawi@camco.cn
 Plot NO. : L/C 13 Mkulumadzi house Churchill road Limbe, Blantyre
 Plot NO. : 3/401 at Area 3, Lilongwe



BACKHOE LOADER



VIBRATORY ROAD ROLLER



BULLDOZER



FRONT END WHEEL LOADER



HYDRAULIC EXCAVATOR



GRADER

...from front page

In the speech that was made last year at the Corporate Council on Africa Business Luncheon at Grand Hyatt Hotel in New York, USA, President Mutharika says Malawi has a lot of unexploited minerals including coal, niobium, gemstone, heavy mineral sand, uranium, rare earth, silica sand and pink granite.

He says: "In fact, the deposit of rare earth is supposed to be one of the largest in the world. We are exploring for oil in Lake Malawi and there is good evidence that we have deposits of oil and gas under Lake Malawi."

"Concessions have been given for exploration and we will be careful to protect the lake as you know Lake Malawi is the third largest lake in the world. It is a lake with over 4,000 species of fish thus more than any other lake in the world. We will try to protect it as we develop our mining industry."

Oil exploration subsector

According to the compendium; in the oil exploration subsector, Malawi is seeking private investors to partner tenement holders in prospecting for hydrocarbons in Block 1, 2 and 3 oil exploration blocks located in the northern side of Lake Malawi.

Block 1 tenement is held by South African company Sacoil Holdings while Blocks 2 and 3 are owned by UAE firm Hamra Oil Holdings.

Malawi also granted oil exploration licences for Blocks 4 and 5 to giant UAE firm RAKGAS and Block 6 to another expatriate firm Pacific Oil Limited.

Hamra Oil completed a Full Tensor Survey for Blocks 2 and 3 while RAKGAS also completed the same in Blocks 4 and 5.

Pacific Oil is yet to conduct a full tensor survey because the time to launch the survey in Block 6 coincided with a recent suspension order for oil exploration by the Malawi Government, which the Ministry of Natural Resources, Energy and Mining issued to give a chance to the Government to review oil exploration licence terms.

Kanyika Development Agreement Negotiations

On the Kanyika Niobium Project, which is owned by ASX listed Globe Metals & Mining, the Government is still negotiating for a developing agreement with the firm which has acquired a mining lease for the area.

Sources say the development agreement talks have taken a new twist as the Chinese majority shareholder in Globe Metals has indicated that it is not comfortable with the 5% prescribed royalty rate offered by the Malawi Government which is said to be higher than the average royalty rate in Africa pegged at 3%.

The sources further reveal that the broker of the negotiations is considering that if an agreement to suite the Chinese investors is not reached, a controlling 90% shareholding in the project be sold to local investors who would be willing to strike a deal based on the 5% royalty rate prescribed in the country's Taxation Act.

Globe Metals & Mining dangled a deal to the Malawi Government, which was similar to the development agreement for Paladin Africa owned Kayelekera Mine in Karonga that gave the Malawi Government 15% shareholding in exchange for a reduced royalty rate of 3%.

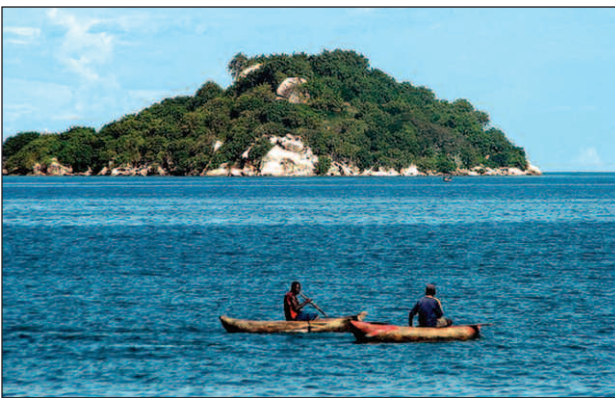
ASX listed Globe has completed ground work on the Kanyika Mine, which seeks to produce niobium, uranium, tantalum and zircon.

Songwe Hill Rare Earth Project

On the Songwe Hill Rare Earth Project, the Ministry of Trade and Industry indicates in the compendium that the cost of operating the project stands at US\$200-million.

"Exploration work carried out so far has indicated existence of about 140-million tonnes of rare earth elements," says the Ministry in the Compendium.

The deposit with over a 20-year mining life is owned by UK Firm Mkango Resources through its wholly owned



Lake Malawi is believed to have oil deposits



Exploration work at Kanyika mine



Rare Earth drilling by Mkango at Songwe Hill



Chambe basin in Mulanje



Airborne Geophysical survey

subsidiary Lancaster Exploration.

Mkango, which is listed on the TSX Venture Exchange, completed a pre-feasibility study of the project and is working on launching a definitive feasibility study.

Kangankunde Mine Legal Wrangle

The Kangankunde Rare Earth Project, which is owned by ASX listed Lynas Corporation is estimated to be worthy over a billion dollars and so far 11-million tonnes of ore with an average grade of 2.0 % REO and 8% for strontium have been proved at the site.

However, development at the site has been affected by legal wrangling pitting the Government and tenement holders as a South African company that originally owned the exclusive prospecting licence for the site, Rift Valley Resources, sued the government for not renewing its licence. The Government had awarded the licence to another company Rare Earths which later sold it to Lynas Corporation of Australia which is failing to make substantial progress at the site because of the wrangle that has resulted in a number of injunctions restraining the project.

Mulanje Bauxite Project

The Mulanje Mountain Bauxite Project seeks to extract and process bauxite reserves in excess of 25.6-million tones discovered so far.

The economic deposits of bauxite are found on the Lichenya and Linje Plateaus on Mulanje Mountain at an elevation of 2000 metres above sea level.

The Project, owned by Springstone Limited, a subsidiary of Canada's Grand Canyon Resources, is expected to produce an annual mining output of 500,000 tonnes of bauxite to produce 200,000 tonnes of alumina to be refined into 100,000 tonnes of aluminium.

Chimutu Graphite Project

The Chimutu Graphite Project seeks to explore 2.7 million tones of graphite ore averaging 5.8% carbon delineated from a drilling and trenching programme during the course of a feasibility study.

"Detailed evaluation of the resources is required but the provisional average grade of ore is about 10% of the carbon," says the Ministry of Trade in the compendium.

The graphite project is owned by another ASX listed firm Sovereign Metals which is yet to establish the total cost of extracting the ore.

Mining Governance and Growth Support Project

With funding from the World Bank and the European Union courtesy of the Mining Governance and Growth Support Project (MGGSP), the Malawi Government has intensified promotional activities for the mining sector which have involved the launch of a new Mines and Minerals Policy.

The new policy seeks to guide the government in its quest to ensure economic diversification from overreliance on agriculture and consequently see Malawi making a paradigm shift from an agro-based to mineral based economy.

With the support of MGGSP, the Ministry of Natural Resources, Energy and Mining also conducted a high resolution country-wide Airborne Geophysical Survey Programme involving magnetic, radiometric and gravity survey.

The survey was aimed at acquiring critical mineral occurrence data for updating the current geophysical and geological database and, according to Director of Geological Survey Department Mr. Jalf Salima, the data will be put online soon for prospective investors' to easily access.

Under the same project, the Government is developing the Artisanal and Small Scale Mining Policy and is reviewing archaic legislation including the Mines and Minerals Act of 1981 and Petroleum Exploration and Production Act of 1983.

shayonacement.com

AKSHAR CEMENT

BUILT FOR ENDURANCE

Akshar Cement is the ideal cement for bridges, multi-storey buildings, road works, water storage tanks, suspended slabs and other medium to heavy concrete projects.

NOW AVAILABLE IN CHIPIKU STORES, FARMERS WORLD, KULIMAGOLD, CASH BUILD AND ALL LEADING HARDWARE STORES AND AGENTS.

AKSHAR® CEMENT is a product of SHAYONA® CEMENT CORPORATION. P.O. Box 679, Lilongwe, Malawi. **CUSTOMER CARE 088 884 2084 / 088 887 0624**

Globe Metals to develop modern town at Kanyika



Mr. Neville Huxham speaking at the conference

By Chiku Jere

ASX listed resources group, Globe Metals & Mining, says it plans to develop a modern town of 2500 people at Kanyika in Mzimba district, where it has a 'mining lease' for a niobium mining project.

Globe Metals Malawi Company Executive, Neville Huxham, disclosed the plan in his presentation on mining experience in Malawi at a side mining conference during the recently held Malawi Investment Forum which was hosted at Bingu International Conference Centre in Lilongwe from June 29 to 30.

According to Mr. Huxham, the town will have all necessities like power supply, water and sewage treatment system.

The plan also indicates that a shopping mall with banking and office facilities as well as supermarkets is in the offing, all as part of Globe Metals & Mining's corporate social responsibility as well as business development programme.

"Our plan is to introduce improved local facilities in the area such as upgraded health services, policing and security. We also envisage improved roads, reliable bus as well as other transport options," Mr. Huxham told the high level conference that included investors, senior government officials and representatives of financial institutions.

He also said that the Africa-focused firm will aid the people of the area in entrepreneurial opportunities by introducing a farming enterprise scheme.

"We are also thinking of proposing a railway link, which, apart from serving the mine's business operations will open up the area as farmers will easily transport their produce and farm inputs to and from the markets elsewhere," said Mr. Huxham.

He said the Kanyika Project, which he labelled as 'Malawi's most exciting mining project' will require a capital investment of US\$450 million (MK240billion) and has an initial mine life of over 20 years with an annual production of 3,000 tons of niobium and 200 tons of tantalum.

Niobium and tantalum are key additives in special steels production and are also predominately used in the manufacturing of electronic gadgets.

At current market prices, Kanyika is projected to gross an annual revenue generation of about US\$215 million, which is equivalent to MK114 billion at current exchange rate.

The investment indaba attracted over 400 potential investors from 31 countries, who showed interest in establishing businesses in various key sectors such as energy, transport, agriculture and mining.

Speaking when he presided over the official launch of the event, Malawi President His Excellency Professor Arthur Peter Mutharika, pledged that government will do anything possible to provide a stable environment for business operations in the country.

He assured investors in the mining industry and other key economic sectors that government will provide both fiscal and physical security to those who want to start businesses in the country.

Mutharika reiterated his government's belief in private sector describing it as the engine for economic growth.

He said: "Given necessary support, the private sector could transform the economy of Malawi from predominately importing and consuming to being predominately exporting and producing."

"We will do all we can to help businesses grow by among others things introducing necessary incentives and motivation that would lead into the creation of a vibrant and thriving private sector."

The president further promised government's flexibility when it comes to repatriation of profits.

He said the country is on the right path to creating a permitting environment for business citing the stabilisation of the local currency, the kwacha, for over a year as a sign of stability of the economy.

The Malawi leader said his government is maintaining a liberalised exchange rate policy in order to uphold a stable environment for running of businesses.

"We promise to uphold the status quo for a foreseeable future as a way of giving a chance to businesses to grow and become profitable," he said.

He also said that his administration has already embarked on projects that will result in the provision of reliable electricity supply, accessible road network, among other necessary developments that have a positive impact on business operations.

Mutharika cited the upgrading of electricity generation capacity and the on-going reforms as measures that his government has embarked on to facilitate transformational way of service delivery.

The Kanyika Niobium Project would require, among other attributes, 20 Megawatts of power (whether through diesel, hydro, solar or wind generation), water storage and purification, waste treatment and haulage services, in essence, providing business opportunities to the would-be suppliers.

The mine will also require supply of equipment, accommodation, catering and other consumables, such as dairy, vegetables and fruits thereby creating a market for produce of surrounding farming communities.

The Kanyika resource is located to the South of Mzimba District in the jurisdiction of Inkosi Mabalabo close to the border with Kasungu District and 250 kilometres North-East of the Capital City, Lilongwe.

Market hiccups choke Eland Coal operations

• Firm feels heat of Tanzania's ban of coal imports

By Deborah Manda

Coal miner, Eland Coal Mines, says lack of a stable and reliable market in the wake of Tanzania's ban of coal imports is affecting its operations.

Managing Director of Eland Coal Mines, Mr. Biswick Kaswaswa, tells *Mining Review* that though the company is able to produce large quantities of coal at its Mwabulambo Coal Mine in Karonga, markets for the product have become scarce as the company is no longer exporting to its Tanzanian customers.

"In the past, we used to export our coal to Mbeya Cement Company in Tanzania but now it is two years since we stopped exporting due to the policy the Tanzania Government embraced of banning the import of coal opting to use their locally produced coal," says Kaswaswa.

He says in consequence, Eland is endeavoring to establish itself on the local market which is difficult because of transportation costs since most of the buyers are based in the commercial city, Blantyre which is a bit far from the mine.

Kaswaswa, therefore, says companies in the South have resorted to import coal from Moatize Coalfield in Mozambique, which is closer to their operational bases in Blantyre.

"Transportation of coal from Karonga to other regions is very expensive thereby restricting us to sell our coal mainly in the Northern Region," says Kaswaswa.

He, therefore, urges the government to emulate the example of Tanzania to protect the local coal industry, which is one of the biggest employers for the country, from collapsing.

Meanwhile, Eland has appealed to the government to assist it in relocating the communities at the mining site.

"It is important that we sit down with the government to iron out compensation issues for the members of the community. When the government does not say anything about these issues, it becomes difficult for companies to decide on their own how much to disperse to the people being displaced due mining activities happening in their area," he says.

The Mwabulambo coalfield is estimated to have 50 million metric tonnes of coal.

Due to long distance from the national power grid, Eland uses diesel for its operations including processing of coal.

Kaswaswa says such a situation affects the operations of the company as use of diesel is more expensive than power from the Electricity Supply Corporation of Malawi (Escom) grid.

Another coal miner, Intra Energy also complained of cheap imported coal flooding the Malawi market and asked the government to follow Tanzania's example by taking necessary action to save the local coal industry.

State President His Excellency Arthur Peter Mutharika pledged to protect the country's investors "physically and fiscally" in his address at the recently held Malawi Investment Forum.



craton resources consultants

Specialising in coal, industrial minerals and base metals exploration and assessments; projects supervision, mineral rights acquisitions and negotiations.

Craton Resources,
P.O. Box 320, Zomba City, Malawi.
Mobile: +265 993 789 398. E-mail: jchatupa@yahoo.com

EDITORIAL

Malawi must protect its local industry



BY MARCEL CHIMWALA, PUBLISHING EDITOR

In our article on Eland Coal Mine operations on Page 4, you will notice that the local coal industry is feeling the pinch of imports choking the market for coal to the effect that Company Executives are pleading with the government to find a way of dealing with the situation.

It is said in Tanzania where there was a similar situation; the country's government has banned coal imports to protect the local industry. The Tanzanian situation is worse still having a knock on effect on the revenue of Malawian companies which used to export to Tanzania such as Eland Coal Mines.

First to express worry over the situation in one of our previous editions was Intra Energy which owns the Nkhachira Coal Mine in the same Northern Region. Its Country Manager Mr. Eugene Khoriyo urged Malawi Government to introduce limitations on coal imports in order to save the local coal industry.

Now it is Managing Director for Eland Coal Mines Mr. Biswick Kaswaswa repeating the same story, which shows that there is indeed a problem here for the government to look at.

We understand that Malawi is a free market and is a signatory to a number of free market treaties which can stand in its way if decisions are made to protect the local coal industry.

However, we also feel Malawi is a sovereign state and the decisions made by its leaders are primarily meant to protect the citizens.

In this vein, we are not looking at protecting the companies, which we understand, have an initial goal to make profits. Rather, we are looking at the plight of the employees of the coal mining companies who stand to lose their jobs if the companies close their mining operations.

Of course, we understand that local companies need to have the stamina to compete globally in this free market era. However, we also have to bear in mind that due to several factors, among them lack of availability of cheap and reliable power, production costs for coal and other significant minerals in Malawi are higher than in neighbouring countries.

On that note, we say that it is not only the coal subsector that needs such protection. Cement producers, which are also big employers, too need similar protection.

So, if Tanzania has made that decision to protect its local industry, what is failing us Malawians?

It was not a long time ago that we used to have long queues at pump stations due to scarcity of fuel. It was said that the reason for it was low foreign exchange levels at the country's reserves which made it impossible for the country to buy adequate fuel.

The country's economists said such a situation resulted from the country's huge appetite for imports thus we have been importing more than we are exporting.

We at *Mining Review* believe embracing a policy to protect our local industry and nurturing it can help us to resist from falling into the same trap again.

We, therefore, have hope in the words of the State President His Excellency Professor Arthur Peter Mutharika who pledged to protect investors "fiscally and physically" in his address at the recently held Malawi Investment Forum.

MINING REVIEW

The Voice of Mineral Sector in Malawi

For advertising, subscription and editorial inquiries

Tel: +265 (0) 111 744 071

Cell: +265 (0) 888 356 536/ (0) 993 252 656

Email: marcsmediamw@gmail.com

For electronic copy visit: www.mininginmalawi.com

or facebook page: Mining Review Malawi

EYE ON MALAWI'S

EITI Extractive Industries Transparency Initiative

By Rachel Etter and Leonard Mushani



Examining Malawi's journey towards EITI compliance

Malawi and Zambia meet on EITI

All of Malawi's neighbours – Zambia, Tanzania and Mozambique – were declared compliant with the Extractive Industries Transparency Initiative (EITI) three years ago. Malawi reached a decision to join EITI last year and this was officially announced by the President, Professor Arthur Peter Mutharika, during his inaugural State of the Nation Address. Since then, Malawi, under the guidance of the Ministry of Finance, Economic Planning and Development's Revenue Policy Division, has been laying the groundwork to apply for the EITI to become a candidate country and then be deemed compliant two or three years later.



Malawi's EITI delegation with ZEITI at the Zambian Ministry of Mines, Energy and Water Development

Malawi's application to join the EITI was submitted by the government in July. A month earlier, in June, the Malawi Extractive Industry Transparency Initiative (MWEITI) team, made up of members and alternates in the multi-stakeholder group as well as other government officials, visited stakeholders from the Zambia Extractive Industries Transparency Initiative (ZEITI) in Lusaka. This study tour, funded by the Gesellschaft fuer International Zusammenarbeit (GIZ), was held to learn from Zambia's vast experience of the EITI implementation process, as Zambia first signed up to the EITI in 2008.

Zambia decided to join the EITI because of the historical and on-going significance of mining to the country's economy. In 2014, mining and quarrying contributed 7% to gross domestic product and the sector accounts for about 70% of exports and 2% of direct employment. According to the ZEITI Secretariat, "Historically there was no transparency and accountability in the mining sector. [...] There was also a perception that the mining sector was not contributing to the poverty reduction and sustainable economic development". These factors motivated Zambia to join the EITI. In particular, through the EITI, mining companies wanted to show the public the size of their tax and royalty contributions to the country and the government wanted to publicise the revenue collected from the sector.

During the Malawian delegation visit to ZEITI from 21 to 27 June, 2015, the team, led by Grecium Kandio, Deputy Director in the Revenue Policy Division of the Ministry of Finance, Economic Planning and Development, had the opportunity to meet with stakeholders from civil society, government and industry who all agreed that the EITI has improved the mining sector. Meetings were held with senior officials in the Ministry of Finance and Ministry of Mines, Energy and Water Development, the ZEITI Council (the 18-member multi-stakeholder group of industry, civil society and government that directs the ZEITI implementation), the Zambia Chamber of Mines and civil society organisations. The delegation also had the opportunity to visit Munal Nickel Mine, which is currently on care and maintenance, and paid a courtesy call to the Malawi High Commissioner to Zambia.

In a visit to the Zambia Chamber of Mines, Maureen Dlamini, CEO, explained to the Malawian delegation that the "EITI has brought to the fore the contributions of mining [...] questions have moved from what has been received to how is money being used by government. There is increasing accountability between all stakeholders". This was confirmed by Siforiano Banda, National Coordinator of the ZEITI, who revealed that the EITI in Zambia has stimulated demand for accountability by communities on the receipt and utilisation of mining funds held by local councils. It has also served as a deterrent against tax evasion and misappropriation of funds by mining companies and government, respectively.

To date, Zambia has produced six EITI reports. In the last two reports, 30 companies reported data. The reports include data on taxes and other payments made to the Zambian Revenue Authorities, to local councils and to the ministries responsible for mining, land and finance, as well as revenue received through government's minority interests in privatised mining companies and the social responsibility payments made by mining companies. Contextual information is provided in the report for mining as well as oil and gas, which, like Malawi, is in the exploratory stages. The availability of data and up-to-date contextual information has raised the level of debate around the extractive industries in Zambia and there has been more "fact-based conversation", according to President of the Zambia Chamber of Mines, Matthew Banda.

Zambia has faced some challenges during its journey towards EITI compliance. Delays in the submission of data by mining companies and government agencies has slowed down the process, especially when companies did not provide information based on audited accounts, which is required by the EITI Standard. As a result, Zambia is developing an EITI policy and bill to ensure that companies comply with the initiative, especially in declaring beneficial owners, and that government agencies provide details that they "may not find palatable", according to Ian Mwiinga, Communications Officer for ZEITI. The ZEITI Secretariat has also found that poor cooperation and communication between civil society organisations and inadequate and untimely funding for the Secretariat's activities have been problematic for ZEITI implementation.

Shortly after the study tour, during the week of the 12 July, the Ministry of Finance, Economic Planning and Development issued a press release on MWEITI to explain the current status, to announce the EITI champion which is the minister responsible for finance, currently Hon. Goodall Gondwe, and the multi-stakeholder group members. By the time this edition goes to print, Malawi's EITI application will be with the International EITI Secretariat in Oslo for review by the Board.

For more information about ZEITI, visit <http://www.zambiaeiti.org/>



No vehicle is complete without Bosch



Diesel Systems • Braking Systems • Gasoline Systems • Lighting Technology • Filtration • Spark Plugs • Wiping Systems • Starters and Alternators • Body Electronics • Energy Supply

Royal Motors - Sole authorised distributor of Bosch products in Malawi

Blantyre Headquarters
Tsirana (Zomba) Road
Tel: 01 84 30 84 / 84 77 45

Lilongwe Branch
Paul Kagame Road
Tel: 01 75 99 02 / 75 99 04



Standard Bank delivers solutions for mining

“Our appetite for mining projects is quite strong”



Mr. Mashanda: We are always ready to finance business ventures

Standard Bank says it has a comprehensive suite of financing solutions for the mining and metals sector in Malawi and across Africa.

Standard Bank Malawi Chief Executive Officer Andrew Mashanda tells *Mining Review* in an exclusive interview that the products on offer include project finance, corporate finance advisory solutions, working capital facilities, bridging finance, acquisition finance, inventory financing, structured trade and commodity finance, commodity price risk management solutions, foreign exchange and interest rate hedging.

“We are always ready to finance business ventures with an established business plan and viable outlook,” says Mashanda.

He says with MWK32.7 trillion Kwacha in gross loans and advances at the end of 2014, Standard Bank Group, definitely, has the financial muscle to finance large-scale mining ventures in Malawi.

Mashanda also says as Africa’s largest bank with a strong presence in Malawi, Standard Bank’s strength and passion is for Africa as a region so when clients speak with Standard Bank Malawi, they are actually having a conversation with an entire regional backbone, which has

trillions of dollars in stock for project financing.

He also says despite challenges currently bedevilling the global mining industry, Standard bank remains optimistic of the future of mining in Malawi.

Mashanda says: “2015 has so far been challenging for the global mining industry. In terms of the outlook, commodity prices are not anticipated to exhibit material improvement, impacting on sector valuations and the ability to raise financing. But Standard Bank Group research shows that African mining remains underexplored. In 2013, African exploration accounted for 17% of the worldwide exploration budget despite the fact that the

continent holds more than 30% of the world’s mineral resources. So amid a more sober outlook, the prospects for mining in Africa remain essentially intact over the medium term. And although cautious, our appetite for mining

projects, especially in an untapped market such as Malawi, is quite strong.”

He explains that due to its history as a mining bank and enduring expertise in the sector, Standard Bank understands mining sector clients’ individual requirements.

Standard Bank group’s activities in mining dates back to the development of the Kimberley diamond fields in South Africa in 1878 and since then the Bank has evolved as a key financier in numerous landmark mining projects throughout Africa.

“Our multi-disciplinary teams based in key financial hubs around the world strongly position us to assist our clients in dealing with the rising opportunities and associated risks and challenges in this sector,” says Mashanda.

In 2012, Standard Bank was among the syndicate banks that provided US\$180-million in project financing for the



Standard Bank financed Kayelekera Uranium Mine

Kayelekera Uranium Mine, which is so far Malawi’s largest mining investment.

In Zambia, Standard Bank acted as a joint lead arranger to First Quantum Minerals on their recent US\$1-billion corporate financing. The facility provides the company with funding lines for planned capital works at Kansashi and the construction of the Sentinel Project in Zambia, which has an estimated capex cost of US\$1.7-billion.

In Namibia, Standard Bank was appointed as the sole lender and arranger to De Beers Marine Namibia (Debmarine) on a US\$70-million term facility.

“As part of an international banking group, we are able

“With the digital platforms that we offer, we see no reason why payments should be delayed as delays usually affect the relationships between customers and their counterparts, be it suppliers or staff. With these technologies, we believe that Standard Bank is in the opportune position to meet the transactional demand of the mining industry and the country as a whole.”

to structure much larger capital injections for our clients with easier access to foreign currency where need be. Standard Bank aspires to be the leading Corporate and Investment Bank in,

for and across Africa with a deep specialisation in natural resources,” he says.

Mashanda also explains that Standard Bank’s strategic presence in key funding markets such as Johannesburg, London, New York, Dubai, Hong Kong, Beijing and Singapore enables it to connect to various pools of capital.

Standard Bank has also a strategic partnership with Industrial and Commercial Bank of China which owns 20% shareholding in the Bank.

“This relationship has enabled us to partner with key Chinese investors in some major projects in Africa,” he says.

Standard Bank boosts as the only bank in Malawi with a fully fledged investment banking division, which is able to assist mining companies in sourcing capital locally and through international markets.



Historical connection: South Africa's Kimberley Diamonds fields

angles financing mining sector

ng; we plan to bank each miner in the country”

Mashanda says the Bank is also well positioned to serve clients including multinationals that are involved in international transfer of funds as it has stayed abreast with international money transfer technologies.

“The digital revolution is here and Standard Bank is a key player in using information technology to deliver unprecedented digital platforms to our customers,” he says.

Among other innovations, Standard Bank has a New Business Online (NBOL) system that gives its customers a global view of all their accounts held by Standard Bank as well as any other agent bank.

The system keeps an 18-months transaction history and allows customers to check their account balances, transfer funds between accounts and make payment from the comfort of their offices.

The system is compatible with accounting systems such as SAP and sends email and SMS alerts as agreed before hand with the customer.

“This also implies that our customer does not have to visit every bank to which they are making payment as they can submit a single file that makes payment to all banks in Malawi,” says Mashanda.

He says the Bank’s Electronic Funds Transfer System

enables its customers to make bulk payments like salaries and contractor/supplier payments securely and efficiently.

Mashanda says: “Our digital payment systems mean that mining companies do not have to expend their resources to take salary and allowance money to the employees working in the field. They can instead use the technology platforms we provide to pay their employees in the field through the mobile banking platforms. The employee will then go to the nearest agent to get cash if

The Bank has also recently started to offer the “funeral plan” product to customers to cover funeral expenses.

they need to do so. Our clients will also benefit as it means their employees do not have to spend long periods travelling back and forth to check their balances or pay bills during working hours.”

“With the digital platforms that we offer, we see no reason why payments should be delayed as delays usually affect the relationships between customers and their counterparts, be it suppliers or staff. With these technologies, we believe that Standard Bank is in the opportune position to meet the transactional demand of the mining industry

and the country as a whole.”

Standard Bank also offers companies the opportunity to provide their employees with accessible, flexible and relevant personal financial solutions.

Mashanda explains that through its workplace banking capability, the Bank is able to conduct banking services on site for the employees as agreed with their employer.

He explains that even though the Bank offers this service at no additional cost for the employer, it offers affordable banking services to the employees across all levels in the organisation.

As for the employees, the Bank offers them everything from current accounts, savings accounts and various types of loans with competitive disbursement times.

The Bank has also recently started to offer the “funeral plan” product to customers to cover funeral expenses.

“Standard Bank is heavily invested in delivering excellent and competitive digital banking solutions and we hope that by doing so, we are able to be there for customers where we do not have physical presence. Clearly we intend to be the miner’s bank, and we plan to bank each miner in the country,” says Mashanda.



The Bank was a sole lender and arranger to Debmara in Namibia



The Bank also financed Quantum Minerals mining projects in Zambia



Geomine

SERVICES

Experts in Mineral Resource Evaluation,
Environmental Management and Mining,
Events Management and Marketing.



Mining investors ask for incentives

- Malawi must see foreign investors as partners in development and nurture them - Walker



Mr. Walker making a presentation on mining investors experience in Malawi

By Marcel Chimwala

There is need for the Malawi Government to put in place appropriate incentives for investors in the mining sector if Malawi is to realize its dream of making a paradigm shift from agro-based to mineral based economy, a representative of the private sector said at the Malawi Investment Forum.

Paladin Africa General Manager, Mr. Greg Walker, who made a presentation on the business environment in Malawi from a mining investor's perspective, said Malawi, which is currently reviewing its archaic mining legislation including the Mines and Minerals Act of 1981, must focus on creating attractive conditions for foreign investors, not just on industry regulation.

"Good legislation is necessary, but that is just the start. You have to become an effective and efficient regulator. See foreign investors as partners in development and nurture them. Value what you already have. Others will judge Malawi on its treatment of operational investors. Be aware of what others offer. Botswana is a good role model - Zimbabwe is not," said Walker, whose firm owns the Kayelekera Uranium Mine in Karonga, which is Malawi's largest mining investment.

He said Malawi will be able to compete for foreign direct investment (FDI) with other countries globally if it

puts in place incentives that give the country a competitive edge against fellow nations yearning for FDI.

Mr. Walker noted that in the internationally recognised Fraser Institute Annual Survey of Mining Companies which rates 122 jurisdictions around the world based on geological attractiveness and government policy encouragement for exploration and investment, Malawi was considered in 2014 but not included due to insufficient response.

"This must change by next year if the country is to be considered a viable mining destination for global investors," he told the delegates at the mining conference that was held as part of the Investment Forum.

Mr. Walker also mentioned high levels of corruption as one of the areas the country has to look at if it is to attract investment.

"Malawi first appeared on Transparency Initiative's (TI) Corruption Perceptions Index in 1998 – and ranked 45th of 99 countries surveyed. In 2010, Malawi ranked 85th. Today Malawi has slipped to 110th – a trend that can and must be reversed," he said.

Mr. Walker observed that Paladin's experience in doing business in Malawi shows that there is need for strong government support to attract FDI.

He cited a robust security of tenure, unambiguous discovery-to-development rights, a clear fiscal and regulatory framework – stability period, appropriate

incentives for investment, statement of support for project development terms, and ongoing project mentorship as some of the key attributes required to create a thriving mining investment environment.

Mr. Walker said: "Social mandate is important but not absolutely essential. Government must take into account national interest considerations. Managing community expectations requires Government intervention."

He also urged the government to ensure that there is supply of adequate, reliable and reasonably priced power to support mining investments.

"Our experience with Kayelekera indicates that self-generation of electricity is a major cost impediment," he said.

Mr. Walker explained that Malawi's target should be to attract 8-10 additional junior prospecting companies to invest in exploration in the next 10 years.

"Exploration is the life blood of discovery as without exploration, there will be no further discoveries and without discoveries, there will be no further development," he said.

Mr. Walker said Paladin would like to see more foreign investment in the resources sector in Malawi and as one way of fulfilling that objective, the company is supporting the establishment of the Chamber of Mines and Energy of Malawi to promote the growth and strengthening of the industry.

"We need to work together to promote a "mining culture" in Malawi so people better understand the social and economic benefits that resource development brings," he said.

Paladin Energy, which is listed on both Australian and Toronto Stock exchanges, has an 85% controlling interest in the Kayelekera Uranium Mine with the Malawi Government owning the remaining 15%.

The company acquired the Kayelekera deposit, which was discovered by the Central Electricity Generating Board of Great Britain, in 2005 when it commenced a Bankable Feasibility Study that was followed by an Environmental Impact Assessment in 2006.

In 2007, Paladin Africa signed a Development Agreement with the Malawi Government which issued a mining licence but legal actions by non-governmental organisations opposed to the development of the project delayed project start-up for 9 months.

In 2008, the firm commenced the US\$ 300M Construction Phase and subsequently launched production in 2009.

Production at Kayelekera was suspended in 2014 due to sustained losses which came about due low prices resulting from low demand of the yellow cake in the aftermath of the Fukushima Nuclear Disaster in Japan which lead to the closure of many nuclear power plants in Asia.

Consequently, Paladin placed Kayelekera on Care and Maintenance after an expenditure of US\$620M and is eagerly waiting for prices to rebound.

Malawi launched a Mines and Minerals Policy in March 2013 which seeks to turn the country from an agro-based to mineral based economy.

The country hopes to fulfill this dream through the exploitation of various minerals including uranium, heavy mineral sands, strontianite, rare earth minerals, phosphate, bauxite, gypsum, vermiculite, precious and semi precious stones, limestone, dimension stones, silica sands, sulphides and coal.

There is also potential for discovery of sizeable quantities of oil and gas and other high value minerals including gold, platinum group minerals and diamonds.

Atlas Copco

Committed to Sustainable Productivity

Contact Persons

S.I Mojoo:

+265 (0) 999 963 944

P.E. Makungwa:

+265 (0) 999 926 409



Atlas Compressors & Tools (MW) Ltd, P.O. Box 578, Blantyre, Malawi. Hayter Road, Ginnery Corner Blantyre. Contacts: Tel.: +265 (0) 1 873 539, Fax: +265 (0) 1 874 019. E-mail: actl@atlascommw.net

Finnish company offers energy solution to mining companies

...ready to invest in biogas power generation to cover Malawi's electricity deficit

By Chiku Jere

Finland-based company, Nocart, says it is ready to help end the energy woes that Malawi's mining sector is encountering by introducing biogas power plants that generate electricity using readily and locally available biodegradable waste materials.

According to a Nocart representative, Mr. Manasu Tsvangirai, the company is capable of using waste from the food industry, municipal waste; green waste as well as animal manure from cattle, pig or poultry farms to produce energy that can power machines used in mining operations.

Mr. Tsvangirai's offer came at a mining conference that was conducted on the sidelines of the recently held Malawi Investment Forum at Bingu International Conference Centre (BICC) in the Capital City, Lilongwe.

He was directly responding to presentations on 'mining experience in Malawi' delivered by two mining investors' representatives, Mr. Greg Walker of Paladin Africa Limited, a company that is mining Uranium at Kayelekera in Karonga District and Mr. Neville Huxham of Globe Metals & Mining an entity that was granted a 'mining lease' for a Niobium mining project at Kanyika in Mzimba District.

The two gurus cited energy deficiency as one of the challenges that impact negatively on mining operations in the country.

Mr. Walker, who is the General Manager for Paladin Africa Limited, said self-generation of electricity has remained a major cost impediment for Kayelekera mine, while Mr. Huxham, of Globe Metals & Mining said the Kanyika Niobium mining project would require a steady and reliable supply of power of over 20 Megawatts.

In response, Tsvangirai said: "The Company I represent has a solution to the energy challenges that the two gentlemen cited. We are ready at your asking to rollout our



Tsvangirai (4th from left) marketing Nocart services to interested participants at mining conference

operations and provide you the power you need."

He also said that Nocart is ready to engage Electricity Supply Corporation of Malawi (ESCOM) and formulate an agreement for it to be supplementing the power it produces into the national grid.

"I am sure this can help the country achieve its energy requirement levels that would spur industrialisation, eventually leading to economic growth and development," Tsvangirai said.

Information from a brochure that was distributed at the forum says one Nocart biogas power plant can produce

electricity ranging from 30kilowatts to 2megawatts.

The process of converting biogas into electricity is achieved by anaerobic digestion of biodegradable material into biogas.

It is further indicated that with 12500 kg of cow manure, 3000kilowatts of electricity can be generated using a biogas plant, which is composed of a biogas reactor, gas processing unit and power management unit.

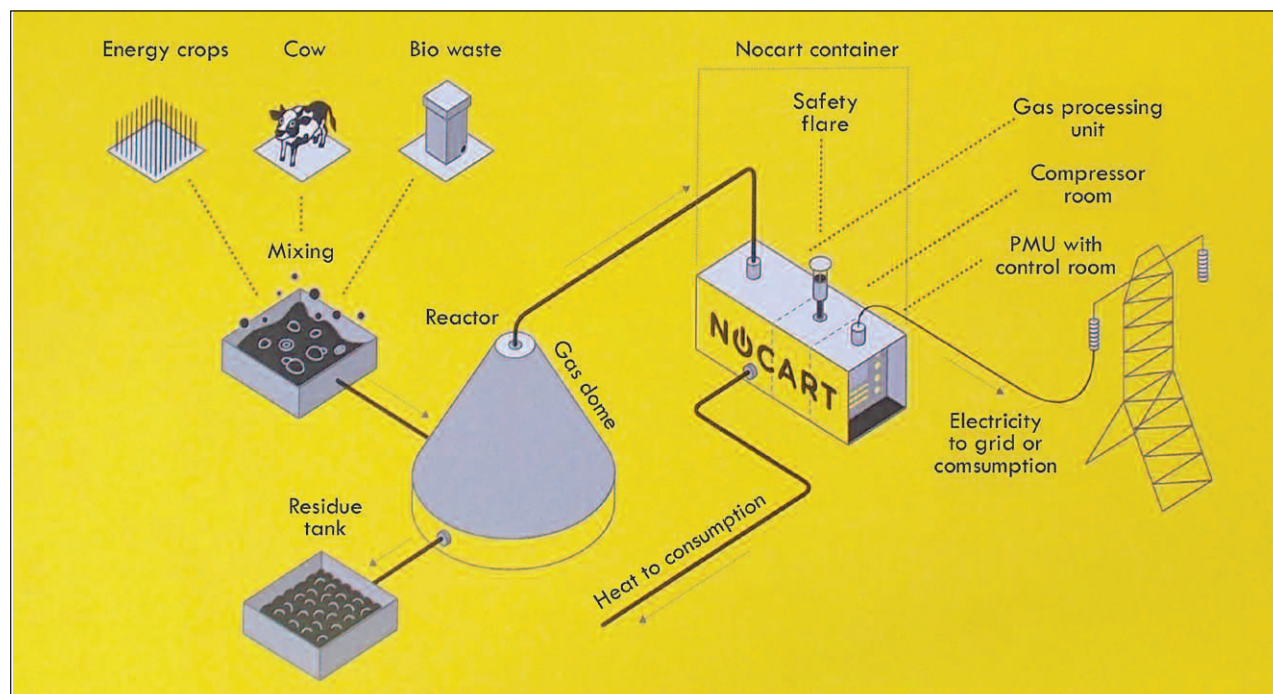
A simple explanation of this, somehow magical, but simple power generation technique is that the source material – waste or manure- is fed into the mixer and mixed into sludge, which is then pumped into the reactor pool where anaerobic bacteria create methane. The product then travels in a pipe to the gas processing machine and power management unit where gas is compressed and cooled before it is burnt in engine generators generating electricity in the process that is fed into a local micro grid or any existing grid.

Furthermore, Nocart biogas power plants are said to be not only easy to install and maintain, but are also cost-effective, simple and durable. And its modularity allows easy upgrading, with the system guaranteeing a 24/7 power feed regardless of circumstances.

Apart from the aforementioned advantages, it is also said that the excess material left after the biogas process can be used as fertilizer for crops.

Generation of energy through biogas has long been touted as a viable option by environmentalists in a world grappling with high pollution levels as its rare attribute of less greenhouse gas emissions qualifies it as environmentally friendly.

Meanwhile, Tsvangirai said several agreements with local companies are in process and that his bosses from Finland will be coming into the country for final engagements that would hopefully result into deals.



Illustrative diagram of Nocart biogas power plant



Chiwandama Geo-Consultants

Experts in geological mapping, mineral exploration and evaluation, geotechnical assessments, mine design and environmental impact assessments for mining and quarrying projects.

Located in Capital City Lilongwe CALL: 0888 825 277

Email: johnkhoma@yahoo.com

TECHNICAL FILE

by Grain Wyson Phillip Malunga FIMMM
Mining and Environmental Management Expert



STRATEGIC MINERALS FOR A DEVELOPING ECONOMY

Abstract

Ever thought of how simple life is with commodities that surround us? Ever noticed that life is supported by electricity, metallic materials, cement products and glass. Without coal, iron ore, limestone and glass sand we would not enjoy luxurious life of cars, living in apartments, seeing through our closed windows and crossing rivers through bridges. Every country should strive to look at these four minerals/commodities as a basis for economic development and of strategic importance.

INTRODUCTION

Coal, iron ore, limestone and glass sand are bulky low value minerals; but of strategic importance for any country to develop its primary industry and infrastructure. Coal is required for electricity generation and steel production from iron ore. A country needs steel for infrastructure development such as bridges and high rise buildings. Limestone is essential in cement production which is required in buildings, bridges and other infrastructure products. Glass sand or silica dioxide is needed in manufacture of glass be it for windows, wind screens and containers.

These are building blocks for the economy and nations should strive to encourage its citizens to develop these mineral resources through economic empowerment or state owned enterprises that strategically look into import substitution and regional exports.

STRATEGIC MINERALS FOR A DEVELOPING ECONOMY

Coal

Coal is one of the three most important fossil fuels that include oil and gas. Coal is formed from accumulation of plants in a non-oxidizing marine environment. This type of environment prevents plants from decay and their continued burying by mud and sand compacts them for a long period forming coal. 10 metre layer of compacted plants forms 1 metre seam of coal.

The main use of coal is for electricity generation and in Malawi it is mainly used for generating steam that is required in agro-processing such as tobacco, tea and textile manufacturing. Ethanol and fertilizer manufacturing also uses coal for heating their boilers. High grade coal is used in the manufacture of coke for use in the steel industry. During thermal power generation, coal residues such as gases, tars and others can be captured and used in a number of manufacturing processes. Plastics, roofing, linoleum, synthetic rubber, insecticides, paint products, medicines, solvents and synthetic fibers can come from coal-derived compounds. Coal can also be used as a household fuel in form of briquettes.

Heat and pressure transforms coal into various stages of composition and properties. The whole process turns coal from peat (carbon content of less than 60%) to anthracite (carbon content of over 87%) through lignite (carbon content of 60 – 70%), sub-bituminous (carbon content of 71 – 77%) and bituminous (carbon content of 77 – 87%). Malawi coal is sub-bituminous to bituminous and is found in the Lower Shire Valley and northern region.

Coal in the north has been found in Livingstonia, Nthalire, North Rukuru and Ngana basins while in the south it has been found in the Lengwe and Mwavvi basins. Coal in Malawi has been observed in the rocks of the Lower Karoo age commonly known as the K2 beds. These beds are usually characterised by conglomerates, sandstones, shales and mudstones with carbonaceous shales and the coal itself.

Vwaza basin has the possibility of hosting coal.

Iron Ore

Iron ore is a source of metallic iron or pig iron which is integral to the global economy. Its main source is magnetite (Fe₃O₄) and hematite (Fe₂O₃) which when they constitute greater than 60% iron form natural ore. Iron ore can vary in colour from dark grey, bright yellow, deep purple, to rusty red.

Mindale Hill deposit outcrops for about 300 metres within a width of 15 metres. The deposit is magnetite interbedded with granular apatite. Three or four thinner bands dip at 700 to the west. The ore requires crushing and magnetic separation to recover the two minerals.

A band of iron ore, in the form of specular hematite, is found near Dzonze Mountain, along Mtendere, in Ntcheu district. Magnetic survey reveals that the deposit may be wider and spanning to several kilometers. Other smaller pockets or bands have been noticed in pegmatite bands and carbonatites such as specular hematite at Tundulu.

The main constraint of mining iron ore economically is its position relative to market, the cost of rail infrastructure to get it to market and the energy cost to beneficiate and turn it into pig iron or steel. This is a high volume but low value business and yet crucial to modern life of structural engineering applications, maritime purposes, automobiles, and production of various types of machines.

Limestone

Limestone in Malawi is dominated by marble bands in metamorphic rocks of central and southern Malawi while sedimentary limestones are common in the northern region. Other limestone resources that have potential to be extracted are carbonatites at Chilwa and Tundulu carbonatites in Zomba and Phalombe respectively. The most important resources are at Njereza in Mangochi, Chenkumbi in Balaka, Chikowa-Livwezi in Kasungu and Malowa in Ntcheu. Here high calcium and low magnesia limestone has been delineated (Table 1).

Limestone will continue to be the most important mineral resource in the absence of uranium production at Kayerekera. The emergence of Shayona Cement Corporation and Cement Products Limited has increased exploitation of limestone for cement production. Limestone for soil conditioning is being undertaken around Matope area and Chenkumbi.

Sedimentary limestones have been observed in Karonga at Chiweta, Uliwa, Mwesia and Ngana. These are associated with Chiwondo beds made up of mudstone and shaley sequences. They occur as marl stone or nodular limestone.

Glass Sand

Glass sand is commonly known as silica sand because it is almost entirely composed of silica dioxide and contains minute impurities of iron (Fe₂O₃), aluminium oxide (Al₂O₃), calcium oxide

(CaO) and magnesium oxide (MgO). This is typical of Mchinji dambo sand (Table 1). Heating sand to about 17000C melts it into a liquid that turns into glass after cooling. When glass is molten it is easy to shape and when it is set into various shapes such as flat sheet (for windows) and glass containers (e.g. bottles or tumblers), it becomes chemically inert so as not to react with any chemical and it can be recycled many times. The glass that we use is a product of sand,



Figure 4: Kanjira Glass sand



Figure 5: Tsumba Glass sand

Table 1: Chemical characteristics of glass sand

PRODUCT	% SiO ₂ Minimum	Mchinji Mean % SiO ₂	% Fe ₂ O ₃ Maximum	Mchinji Mean % Fe ₂ O ₃	% Al ₂ O ₃ Maximum	Mchinji Mean % Al ₂ O ₃	% CaO + MgO Maximum	Mchinji Mean
Optical Glass	99.8		0.02		0.1		0.1	
Flint Containers and Table Ware	95.0 - 98.5	98.2	0.04		0.5 - 4.0	0.28	0.2 - 0.5	0.28
Sheet and Plate Glass	95.0 - 98.5	98.2	0.06		0.5 - 4.0	0.28	0.5	0.28
Green Glass	95.0 - 98.0	98.2	0.3		0.5 - 4.0	0.28	0.5	0.28
Amber Glass	95.0 - 98.0	98.2	1.0	0.42	0.5 - 4.0	0.28	0.5	0.28

soda ash (NaCO₃), and limestone (CaCO₃) to make sodium-lime-silica glass that we see around us. Soda ash reduces the temperature at which sand melts while limestone makes the glass not to dissolve in water.

Glass can assume different appearances through addition of chemicals and metals. Addition of iron and chrome will make glass tinted green while addition of metals make glass look stained. Addition of boron oxide makes glass tougher to be used in microwaves. PYREX is a good example of glass added with boron oxide.

MINERAL RESOURCE DEVELOPMENT AND CONSTRAINTS

Table 2 shows the level of knowledge on quantity of minerals in demarcated areas. This only indicates the reserves in specific areas where work was done. The classification of tonnage from inferred to measured resources is a factor of level of certainty where "inferred" gives less confidence and "measured" gives more confidence that the mineral is there and a feasibility study can be undertaken to determine whether mining can take place at a profit.

Table 2: Strategic commodities for economic development in Malawi

Prospect	Resources (Mt)			Remarks	Remarks	
	Measured	Indicated	Inferred			
COAL	Ngana	15	50	30.2% ash, 2.2% S and 4708 Kcal/kg	Feasibility	
	North Rukuru		5	32.4% ash, 0.6% S and 4781 Kcal/kg	Follow-up	
	Nthalire			15		Follow-up
	Livingstonia	1.4	5	20	17% ash, 0.5% S and 6800 Kcal/kg	Pre-feasibility
	Lengwe		10		59.2% ash, 0.51% S and 2746 Kcal/kg	Follow-up
	Mwavvi	5	10		40% ash, 0.76% S and 4173 Kcal/kg	Pre-feasibility
	Mchenga		1.4	5	14% ash, 4799 Kcal/kg	Feasibility
Iron ore	Mindale		0.5	3.3	67.5 Fe	Pre-feasibility
	Mtendere		0.5			Follow-up
Limestone	Uliwa and Mwesia sedimentary limestones		709,629		42% CaO, 15% SiO ₂	Pre-feasibility
	Njereza	98.0			53.0 CaO, 2.0% MgO	Feasibility
	Chikowa/Livwezi	10			Approximately 17 Mt of cement grade, 51.0% CaO, 0.7% MgO	Feasibility
	Chenkumbi	20	300		46.1% CaO, 6.3% MgO	Feasibility
	Malowa	14.0	3		53.6% CaO, 1.4% MgO	Feasibility
	Lirangwe					Follow-up
	Matope					Follow-up
	Chilwa Island				52.1% CaO, 0.2% MgO (grab sample)	Pre-feasibility
	Tundulu Hill				50.9% CaO, 0.8% MgO (grab sample)	Pre-feasibility
	Songwe Hill				46.5% CaO, 0.6% MgO (grab sample)	Follow-up
Glass Sands	Mchinji: Chimwang'ombe, Chitapume, Tsumba, Kachusi-Thumba, Nabiumi, Elenesto		1.6		97% SiO ₂ < 0.2% Fe ₂ O ₃	Pre-feasibility
	Lake Chilwa Sand Bar			25.0	92.7, 0.62 Fe ₂ O ₃	Pre-feasibility

resource development. All these are compounded with unfair extreme expectations on the contribution of mining to community engagement and social development.

Two initiatives can be undertaken to fund such projects. One is to speed up the establishment of a Development Finance Institution to fund strategic economic ventures such strategic minerals and agro processing facilities for value addition in order to boost exports and self-sufficiency. Malawi Savings Bank would have been an appropriate vehicle for easy set-up. The second initiative would be to re-establish Mining Investment and Development Corporation (MIDCOR).

Unfortunately, MIDCOR was heavily politicized and fell victim to the so call "Structural Adjustment Program" which in Malawi was not well thought off and led us to economic misery that we see now. The idea of having MIDCOR was to promote and speed up the development of the mineral sector. All mature projects were to undergo divestiture to Malawians as an initiative of creating a middle to upper class Malawian employers and to reduce capital flight by global companies due to various reasons such as global financial crisis and political insecurity.

CONCLUSION

Malawi's economic policies need to be redefined if the country can move forward in promoting economic independence. Institutions of higher learning should now focus on minerals and industrial education producing quality technicians and graduates that are relevant with the needs of the industries and Malawi's economic development path. Universities should develop relevant curriculum that will fit in with the growing financial and economic needs of the nation.

REFERENCES

- 1.0 Bloomfield, K. and Garson, M. S. 1965. The geology of the Kirk Range-Lisungwe Valley area. Bull. Geol. Surv. Malawi, 17.
- 2.0 Malunga, G. W. P. 1996. Coal in Malawi. Unpublished Report
- 3.0 Malunga, G. W. P. 1996. Limestone Resources for Production of cement in Malawi. Unpublished Report
- 4.0 Malunga, G. W. P. 1997. Mineral Potential of Malawi. Unpublished Report.
- 3.0 Malunga, G. W. P. 2014. An analysis of the Mineral Resources of Malawi, ISBN 978-99908-950-01

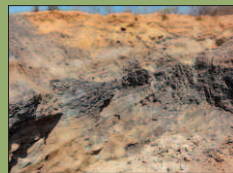


Figure 1: Vungu coal seam within Mwankenja coal field



Figure 2: Mtendere Iron Ore Deposit



Figure 3: Njereza Limestone Deposit

AFRICA IS RISING AND WE'RE HELPING BRING LIGHT TO IT

A thriving Africa. That's the objective that underpins every investment banking deal we execute. We are honoured and humbled that the mining sector recognises our efforts in pioneering landmark transactions in Africa. We are committed to helping Malawi and the rest of Africa move forward through ground breaking deals.

Standard Bank – Landmark deals in the mining sector

				
<p>African Barrick Gold Bulyanhulu Gold Limited Tanzania 2013 USD 150 million Mandated lead Arranger and Underwriter of ECA backed funding</p>	<p>Impala Platinum Holdings 2013 ZAR4.5 billion (USD 500 million) Convertible Bond Joint Bookrunner Debt Sponsor</p>	<p>Namibia 2014 USD 130 million Project Finance and Working Capital Facilities to Refinance Existing Debt Joint Mandated Lead Arranger</p>	<p>Namibia June 2014 BWP68,705,000 Property Finance facility Lender</p>	<p>BCM 2013 USD 18.8 million Term Lending Joint Mandated Lead Arranger / Lender</p>
<ul style="list-style-type: none"> African Barrick Gold Plc, Structured Export Finance Loan Facility Standard Bank arranged a USD 142 million structured export finance loan to Bulyanhulu Gold Mine Limited, a 100% owned subsidiary of African Barrick Gold Plc (ABG). We acted as the SOLE mandated lead arranger and agent bank for the seven year facility, which will be used to fund the expansion of the carbon in leach circuit at Bulyanhulu, their flagship operation in Tanzania. We were able to structure the transaction in a very innovative way to ensure the most attractive pricing for the client (Libor + 2.50%). The transaction is underpinned by expropriation insurance cover from the Export Credit Insurance Corporation of SA (ECIC) as well as a seamless guarantee from ABG covering all causes of loss that are not covered by the ECIC insurance policy. ECIC was able to insure the transaction on the back of the capital spend associated with this project being mostly placed with a South African Exporter, MDM Engineering Projects Limited. The Bank underwrote the full facility and sold down 50% of the facility pre financial close to Standard Chartered as well as ABSA Capital. Financial close on this transaction occurred on 18 January. 	<ul style="list-style-type: none"> Implats, ZAR4.5bn (USD500mn), Dual Currency Convertible Bond ("CB") Standard Bank acted as Joint Bookrunner and Debt Sponsor on the transaction <p>Through Standard Bank's extensive local and global distribution network, we were able to:</p> <ul style="list-style-type: none"> Execute a highly successful local and international marketing campaign pre-launch Secure key early anchor orders locally which gave the Company the confidence to launch the CB Build a book of demand that was 8x oversubscribed Generated significant orders which meant the upside option was used entirely on the ZAR Bond tranche and moved the bookbuilding to the tighter end of the range Provide extremely attractive financing terms for Implats, well inside normal debt levels in South Africa 	<p>Paladin Energy Financing</p> <ul style="list-style-type: none"> Standard Bank, jointly with Nedbank Capital, refinanced the existing project finance facilities at Paladin Finance (Langer Heinrich uranium mine) and Paladin Africa (Kayelekera uranium mine) The deal consisted of a project finance facility to Paladin Finance Ltd, advanced through the Standard Bank of South Africa's Isle of Man Branch, and a working capital facility to the project company by Standard Bank Namibia The facilities reached financial close during January 2014 	<p>Diamond Technology Park (DTP), BWP68.7mn, Lender</p> <ul style="list-style-type: none"> Stanbic Bank was appointed as property finance lender of BWP68,705,000, to fund the construction of a specialised building consisting of offices, workshops and laboratories for further refinement of diamonds in Gaborone, Botswana. The building will be let to various diamond downstream companies. 	<p>BCM International Limited</p> <ul style="list-style-type: none"> Standard Bank was a joint mandated lead arranger with Caterpillar Financial Services Additionally, Standard Bank was a lender in an amount totalling USD 9.4 million towards the purchase of mining equipment Standard Bank is also acting as both Facility and Security Agent for the transaction



Moving Forward™

MINING REVIEW

VOICE OF THE MINERAL SECTOR IN MALAWI

Essential Tours
& Travel Bureau

Experts in domestic and international air ticket bookings, travel consultancy and visa processing support.

Location: Golden Peacock Shopping Center Room B2, Ground Floor, P.O. Box 206 Lilongwe, MALAWI
Tel: +265 1 770 709/659/694
Mobile: +265 999 308 436 / 888 300 133 / 995 645 749
Email: info@essentialtravelmw.com

Issue No. 28

August 2015

Paladin suspends uranium exploration work in Malawi

By Marcel Chimwala

Dual listed miner, Paladin Energy, has announced the suspension of uranium exploration work in Malawi following complications over its five exclusive prospecting licences covering areas in the proximity of the Kayelekera deposit.

MD and CEO for the firm, which is listed on Australian and Canadian Stock Exchanges, John Borshoff says in the company's quarterly report for the quarter ending June 2015 that there have been delays to renew five of the company's exclusive prospecting licenses (EPLs) that expired in December 2012.

Says Borshoff: "The anticipated early approval by the Department of Mines of applications for five EPLs covering areas North, South and East of Kayelekera Mine that would have enabled exploration activity to commence in June 2015 did not eventuate."

"The Department has informed Paladin that the Government of Malawi has imposed a moratorium on applications and grants of all mining and exploration tenements while it introduces a new cadastral system and a new Minerals Act."

"Paladin anticipates that its five EPL applications are unlikely to be granted before the March quarter 2016. As a result, the company has suspended exploration activities in Malawi until there is clarity on the provisions on the new mining code and its EPL applications have been granted."

General Manager for Paladin Africa, a subsidiary of the Paladin group which runs Kayelekera Uranium mine, Gregory Walker explains that after the government failed to renew Paladin's EPLs, it granted coal licenses for the same area to other companies.

Walker, however, explains that Paladin successfully persuaded the coal tenement holders to permit the company to continue exploring for uranium while they pursue the coal deposits.

"We, however, doubt if this arrangement with the coal firms will work because it appears the new law will not allow that licenses for different minerals overlap," says Walker.

The Kayelekera Mine, touted as Malawi's largest mineral sector investment, is, currently, on care and maintenance after the company suspended production at the site due to poor prices of uranium oxide on the world market.

Borshoff says in the report that quarterly activities at the site focused on treating and discharging water in order to reduce Kayelekera Mine's water balance prior to the onset of the next rainfall season and on maintaining idled plant and equipment in good working order.

He reports that controlled treated water release commenced in mid April 2015 and continued without incident but in late June, discharge was suspended due to



Borshoff: "The company has suspended exploration activities in Malawi"

the very low receiving water level in the local river system.

"The feasibility study for recommencement of production at Kayelekera Mine is near completion with a final interval review of the study underway. The study to date has confirmed that the Kayelekera Mine remains a valuable strategic asset that can be quickly returned to production when justified by a higher uranium price environment," he says.

Borshoff says Kayelekera Mine will provide an

additional 2.5Mlb per annum in production and has clear potential to produce strong cash flow for at least six years as more than 50% of the project's total reserves and resources remain for future development.

"Further regional exploration has the potential to provide additional upside," he says.

Following the suspension of exploration activities, Paladin Africa has retrenched its exploration staff only retaining two senior officials who have been posted to work at the mine.



By James Kazembe

ETG
EXPORT TRADING GROUP



AVAILABLE ARE:- Tractor Model (60HP - 92HP)



Bull Master (60HP - 70HP)



Laser (110HP - 280HP)



Genset (7.5KVA - 200KVA)



DC (2.5litres Engine with dual airbags, 4x4/2x2 option)



Mineral Review Design

Authorised Sole Distributors and Service Suppliers:- ETC AGRO TRACTORS AND IMPLEMENTS LTD

ETC Agro
Transforming Agriculture Mechanization in Africa

BLANTYRE: G11 City Plaza, before Speedys Round About
of Maselema UMBE
Tel: 212 999 284
E-mail: cm.malawi@etcagro.com

LILONGWE: P.O. Box 2540, Area 3, opp. Maula Prison
Next to M.A. Motors
Cell: +265 (0) 991 029 284
E-mail: operations.mlw@etcagro.com

Mahindra
Rise.

Published by Mining Review Publications P.O. Box 31973 Blantyre 3, Tel: +265 (0) 111 744 071. Cell: +265 (0) 888 356 536, (0) 993 252 656

Email: marcsmediamw@gmail.com