ISSUE Ten Advantages of AMMZgovernment getting royalties strategises to in the form of minerals achieve US\$12 billion industry Zambezi Gas underground Operations Near Real-Time Visualisation Important in improving Mining Productivity What Zimbabwe Can Improve In 2023 ASM Gold Miners outclass primary producers KEY MINING





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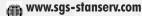
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Mining

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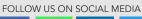
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Government must make it mandatory for miners to join Associations





THE CLEAR PERSPECTIVE

The year 2022 made one thing clear, the most interested foreign country investing in Zimbabwe is China.

The Chinese companies are investing in a wide range of Minerals mainly lithium, gold, chrome, semi-precious stones and various other minerals.

There have been several complaints in the media about how the eastern friends ill-treat workers at their mines and reports of underhand dealings. This continues to create a negative perception on the eastern investor who is regularly described as a plunderer and abuser.

But what are the Chinese doing to fix this negative perception?

We have read several times from the Chinese Embassy that not all are ill-treating workers, those who do must face the full wrath of the law.

There seems to be an us and them sentiment that other mining investors have never been subjected to taking into cognisance that our biggest mines are foreign-owned.

Chinese mining companies should get into the same tent with other miners so that their operations are in synergy with the rest of the country. These organizations will give these miners proper guidelines on how to conduct operations and align them to constitutional and traditional fundamentals. This is a catalyst to potentially eliminate the "us vs them mentality" that seems to be in the country at the moment.

The government must make it mandatory that all large-scale miners join the Chamber of Mines or other organisations representing LSM so that the country subscribes to the same principles and guidelines. While it is not expected and soon going to be banned, small-scale investors have the option of joining the Zimbabwe Miners Federation (ZMF).

Good examples of why it must be so include must-go events like the National Mine Rescue competition which focuses on sharing information on accidents that are common in the industry and basic information of the prevention of such accidents and sharing experiences. This initiative is meant to complement efforts by individual mines to prevent accidents. There was dismal attendance by Chinese owned companies at the 2022 event.

Chinese companies are seldom seen at must-go expos which brings up the question, where are they getting their equipment? Are they just here to get minerals, bring their own equipment, bring their own labour and not even give business to local players? Are they not interested in networking with peers in the industry at all?

With Association memberships, information sharing will potentially eliminate some practices that are unheard of in other mines. For example, we have seen reports of workers engaging in physical altercations with mine owners or communities which is unheard of at large-scale level.

Aloofness will otherwise overshadow the otherwise much appreciated major investments and expertise the eastern friends are bringing to the country.

Kudos to new kids on the block, Kamativi Mining Company (KMC) who we have seen at several groupings.

Zimbabwe is a welcoming nation. Chinese miners should get into the tent with others. Us and them is contrary to production sunungukai kusangana nevamwe!

I wish you all a prosperous 2023 and hope we are all upbeat to conquer the us\$12 billion milestone by 31st of December.

Hope you enjoy the read and for any comments do not hesitate to write to me on info@miningzimbabwe.com





Mining in 2022 analysis:

Key mining projects and upgrades

hydrocarbons

he Mining Sector is a key player in the country's economic development. The sector contributes more than 60% of Zimbabwe's export receipts, attracts more than 50% of foreign direct investment (FDI), contributes about 13% to GDP and generates significant employment.

In 2021, the mining industry attained USD5.46 billion in exports against Main minerals that are a targeted projection of USD8 going to lead the growth of billion during that period. The the mining sector include gold, platinum group mining sector remains well on metals (PGMs), coal course to generate USD12 ferrochrome, steel, nickel, billion in revenue by the year diamonds, lithiumand 2023 thereby contributing significantly towards the attainment of the national vision.

The main minerals that are going to lead the growth of the mining sector include gold, platinum group metals (PGMs), ferrochrome, steel, nickel, diamonds, lithium, coal and hydrocarbons. Under National Development Strategy (NDS1) implementation, beneficiation and Value Addition of our economic minerals will ultimately feed into the attainment of Vision 2030 of Zimbabwe becoming an Upper Middle-Income Economy by the year 2030.

Zimbabwe is prioritizing enhanced investments in exploration, opening of new mines, beneficiation and value addition of minerals; as well as expansion of projects subject to various commercial and economic models. His Excellency has commissioned a number of mining projects across various mineral subsectors such as gold, diamonds, Platinum Group Metals (PGMs), Coal and lithium among others. The Mining

Sector continues to record positive growth underpinned by a number of programmes that include increased exploration, resuscitation of closed mines, the opening of new mines, expansion of existing mining projects and mineral beneficiation and value addition.

The following are Key mining projects and upgrades made since the inception of President Emmerson Mnangagwa's administration.

GOLD: Caledonia Mining Corporation Plc/ Blanket Mine (Shaft Expansion), Gwanda Matabeleland South

The government of Zimbabwe signed a Memorandum of Understanding with Caledonia Mining Corporation Plc on 5 October 2020 for the expansion of Blanket Mine. The project is now under implementation.

- ·Blanket Mine is increasing production through the Central Shaft Expansion Project.
- · The Central Shaft project commenced in 2015 with the objectives to increase production to 80,000 ounces of gold per annum, reduce operating costs and allow for further exploration to extend the life of mine beyond 2024.
- · The Central Shaft is one of the deepest shafts in Zimbabwe, with a depth of 1,200 metres from the surface.
- · The total investment of the project is USD67 million and the project employs a total of 1,979 people in Zimbabwe.
- · Caledonia Mine has also constructed a 12MW Solar Plant at Blanket, at a cost of approximately USD14 million.



Riozim Cam and Motor mine (expansion project) Kadoma, Mashonaland West



- RioZim Cam and Motor Mine Biox Plant was officially commissioned by His Excellency, the President of the Republic of Zimbabwe, Cde. Dr. E. D. Mnangagwa on 14 April 2022.
- The project will result in the creation of additional direct employment of about 120 people.
- The gold production will reach 140 kilogrammes per month, during the first phase of the project, and will peak at 200 kilograms per month, after Phase 2 is implemented.

ZIMCN RADNOR MINE (Makaha, Mashonaland East)



- · A total of USD 35 million was invested into the mine.
- · 200 workers engaged on a full-time basis comprising 60 Chinese engineers and 140 local Zimbabweans. Of the 140 local Zimbabweans, 41 are residents of the local project hosting area of Makaha and its surrounding areas of Mudzi, Mutoko, Murehwa and Nyanga North.
- · Acquisition, installation and turning on of the country's single largest gold ore crushing unit at a processing capacity of 1000 tons per hour.
- · Construction and operationalization of the country's largest gold recovery heap leaching project hosted by a single mining entity. In the past 15 months period, the mine has developed heap leaching pads covering a combined floor base of 15 hectares. In the same period, 1.5 million tons of ore has been extracted, crushed and loaded onto pads.
- Development of a major 200 metres deep 7m by 7m inclined tunnel shaft to extract the deep underlying high-grade

sulphide ores. The tunnel is currently being developed to reach a 1km extent for massive ore extraction at rates of 100 tonnes per hour.

· Corporate Social Responsibility plan has entailed road rehabilitation, borehole drilling, local schools' buildings renovations and mobilization of Netone to install a mobile network booster for the surrounding community.

PLATINUM GROUP OF METALS (PGMs) Unki Mine (Pvt) Ltd (Expansion Project) Shuruqwi, Midlands



ZIMPLATS signed a Memorandum of Understanding with Government of Zimbabwe in 2021 that will see the company invest USD1.8 billion to expand its operation by the year 2025.

•ZIMPLATS signed a memorandum of understanding with the Government of Zimbabwe in 2021 that will see the company invest USD 1.8 billion to expand its operation by the year 2025.

· These projects include new mine development, additional concentrator, PGMs smelter expansion, PGM Base Metal Refinery (BMR) plant, sulphuric acid plant as well as the 110 MW Solar power plant.

MIMOSA MINING COMPANY, ZVISHAVANE

- The Concentrator Optimization at Mimosa Mining Company is nearing completion and the commissioning of the concentrator is scheduled for February 2023.
- The concentrator optimization project will result in an increase of 11,552 4E ounces PGMs per year.
- The project will generate USD27 million per annum with a workforce of about 33 people.

CHROME, FERROCHROME AND STEEL Afrochine Smelting, Selous



- Operationalization of 2 × 12.5 MVA Furnaces in addition to 3 Chrome Smelters already operating to produce 600 000 tons per annum of ferrochrome was done in June 2019. Afrochine now has a total of 5 operational smelters.
- The furnaces are ready for commissioning by His Excellency.
- They are working on increasing furnace capacity to achieve 500,000 tonnes by 2023 ramping up to achieve 1,000,000 tonnes by 2025. They are also setting up 2 smelters in Chivi.

DINSON IRON AND STEEL COMPANY (PVT) LTD (TSHINGSHAN), CARBON STEEL PLANT (NEW PROJECT)



The steel plant will produce 1.2 million tons of carbon steel per annum and will generate around USD 1.2 billion per annum

- The Capital Investment for Phase 1 of the project is about USD1 Billion and is expected to have an annual turnover of over USD600 Million per annum.
- The project is set to employ over 2000 employees during the first phase. At full throttle, the Steel company itself is expected to employ more than 10 000 workers directly while it will create employment for millions of Zimbabweans indirectly through the upstream and downstream industries.
- The original MoU signed between Government and Tsingshan Holdings Group was signed in June 2018 after His Excellency had met its Chairman in April 2018.
- The original MoU saw the setting up of the Dinson Colliery and Manhize Iron Ore and Value addition park.
- · On the 29th of November 2022, The President of the Republic of Zimbabwe, His Excellency, Cde.Dr. E. D. Mnangagwa presided over the signing of the addendum to the Memorandum of Understanding between Government of Zimbabwe and Tsingshan Holdings.
- The addendum to the Memorandum of Understanding concerns the following:

Continued on the next page>>

MINING AFFAIRS

- i. Expansion of two more furnaces in Afrochine Smelting (Private) Limited; ii. Setting up of 350,000 coke production capacity at Dinson Colliery (Private) Limited;
- iii. Establishment of a carbon steel plant with its first phase of 600,000tons at Dinson Iron and Steel Company (Private) Limited:
- iv. Setting up a cement manufacturing plant with a capacity of (one) 1 million tonnes per year;
- v. Setting up a lithium processing plant with a capacity to produce (two) 2 million tonnes per year of lithium concentrate;
- vi. Refurbishment and construction of a 1000km long railway line system in the ROZ to provide a dedicated, reliable, uninterrupted and efficient railway system
- uninterrupted and efficient railway system to be able to ferry our products for both local and exports-imports routes;
- vii. Construction of a 1000Mw power plant to ensure energy security.

DIAMOND

Rzm Murowa Diamonds Greenfields Diamond Plant Construction, Murowa, Midlands



- The construction of the RZM Murowa 500 TPH Greenfields Diamond Plant Project is now complete, with the project now awaiting commissioning. The expansion is expected to increase output from 190 000 tons of ore per month to 500 000 tons per month.
- The project will create employment for 679 locals.
- The project will increase diamond production in Zimbabwe, foreign currency generation and development of the local communities of Zvishavane.
- The expansion of RZM Murowa Diamonds is a success story to the President 's call for investors to invest in the geologically rich nation. RZM Murowa Diamonds is a key driver in achieving the National
- Development Strategy 1 (NDS1) and Vision 2030
- RZM Murowa Diamonds is expected to make a significant contribution towards achieving a USD12 Billion Mining sector by 2023 and eventually driving the economy

to become an Upper Middle-Income Economy by 2030.

LITHIUM Sinomine Bikita Minerals, Masvingo



- · Sinomine acquired an effective shareholding in Bikita Minerals (Private) Limited ("Bikita") in February 2022 through the purchase equity in Bikita held by external shareholders.
- Sinomine has been investing in Zimbabwe for over 15 years, commencing with exploration, contract mining, and investing in the lithium businesses from the Arcadia Resources project to the acquisition of Bikita Minerals in February 2022. Sinomine sold its minority shareholding in Arcadia in 2021.
- · Following the takeover by Sinomine, Bikita's strategic development plan is as follows:
- a. Based on the exploration advantages of Sinomine, they have already implemented resource exploration of the mining area, have found more reserves of Bikita minerals, providing further technical support and resource guarantees for the development of the Mine to the next stage. b. To invest USD50 million dollars expanding the petalite plant to increase the current capacity and production. Bikita currently produces petalite and intends to increase its production and export.
- c. To invest USD150 million dollars to set up a new spodumene production line and to develop the Spodumene project.
- Spodumene contains chemical grade lithium required for batteries. It requires several phases of processing before it can be used to make batteries.
- d. To invest USD20 million dollars to set up a new 110km power line from Tokow station via Masvingo to Bikita Mine, which will improve the Nation Grid and benefit of the whole of Masvingo Province for its people.

SABI STAR MINE, BUHERA

- The construction of a Lithium Processing Plant is underway.
- The project is scheduled for completion in February 2023.
- · The company plans to set up a battery-

- grade Lithium plant in Zimbabwe with an envisaged investment of USD 250 Million. The plant is expected to be the first and the largest of its kind in Africa.
- Regarding Community and Social Responsibility (CSR), the company intends to build a local clinic. There is also scope for drilling boreholes for the local community to alleviate challenges related to water for domestic and project purposes.
- Max Mind (Pvt) Ltd intends to invest up to USD8 Million in the first phase of the project which will result in the export of lithium and tantalite concentrates and they have so far already invested USD 5
- The annual turnover for the project will be USD600 million per annum with a workforce of 400 people directly and indirectly.



MINES TO ENERGY PARK, MAPINGA



- The project entails the establishment of a Mines to Energy Park in Mapinga, Mashonaland West.
- The park will be comprised of the following:
- i. Two (2) three hundred megawatt (300MW) power stations;
- ii. A coking plant with a capacity of one million and two hundred thousand tonnes (1,200,000t) of coke per annum at an estimated cost of two hundred million United States dollars (USD200,000,000,000); iii. A lithium salt plant at an estimated cost of four hundred and fifty million United States dollars (USD450,000,000.00) with a capacity to produce over thirty thousand tonnes (30,000t) of lithium hydroxide and the capacity to expand to over one hundred and thirty thousand tonnes (130,000t) of lithium carbonate and/or lithium hydroxide per annum;

iv. A graphite plant at an estimated cost of one hundred and eighty million United States dollars (USD180,000,000.00) for Phase I with a capacity to produce seventy-five thousand tonnes (75,000t) of ninety-five per cent (95%) purity graphite per annum, and a further Phase II for battery grade product;

v. A nickel sulphate plant to produce one hundred and fifty thousand tonnes (150,000t) of nickel sulphate, six hundred thousand tonnes (600,000t) of magnesium oxide, one hundred and fifty thousand tonnes (150,000t) of sodium hydroxide and two hundred thousand tonnes (200,000t) of iron concentrate per annum at an estimated cost of one billion United States dollars

vi. A nickel-chromium alloy smelter to produce three hundred thousand tonnes (300,000t) of nickel-chromium alloy per annum at an estimated cost of five hundred million United States dollars (USD500,000,000,000.00).

COPPER Grand Sanyuan Copper Resources Zimbabwe

(USD1,000,000,000.00);



- The construction of the Copper Processing Plant is now complete and the smelter is operational.
- The establishment of the smelter will be an important step towards full copper value addition as per the Greater Chinhoyi Copper Development program.
- The production output of copper bullion is expected to be 450 tons per month.
- The project will generate USD14.4 million per annum with a workforce of about 94 people.

ENERGY MINERAL PROJECTS (COAL, COKE, OIL AND GAS)

Dinson Colliery Plant For Coking Coal Production, Hwange Mat North.

- The construction of the Dinson Colliery Phase 2 Coke Oven Battery is now complete with the installation of equipment underway.
- Phase 2 Coke Oven Battery is scheduled for completion by Q1 2023.
- · Phase 2 of the project will have a capacity of 180,000 tonnes per annum,

generate revenue of USD54 million per annum and create employment for 500 locals.









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Advantages of government getting royalties in the form of minerals

By Lyman Mlambo, Private Consultant (Mineral Economics & Policy)

The Government of Zimbabwe jewellery industry as all three

has recently gazetted that half of the mineral royalties for gold, diamonds, platinum group metals (PGMs) and lithium will be paid in the commodities themselves and the remaining half paid in cash split between 40% Zimbabwe Dollars and 10% foreign currency as reported in the Media, Royalty payments for the rest of the minerals will be split 50:50 between Zimbabwe Dollars and foreign currency.

This article highlights ten advantages of the Government receiving royalties in the form of the products themselves:

1. STABLE ROYALTY RECEIPTS:

The move, which essentially introduces a partial unit-based royalty model, ensures that the Government receives stable and certain value from mineral production, as argued by a 2006 World Bank Report on "Mining Royalties (A Global Study of Their Impact on Investors, Government, and Civil Society)" co-authored by Otto, J and others, and published in Directions in Development (Energy and Mining) Journal. This is because production-based royalties are not affected directly by international mineral commodity price fluctuations.

2. Development of the local jewellery industry:

If the Government has significant reserves of gold, PGMs and diamonds it can craft a clear strategy to develop the country's jewellery industry as all three minerals are used in this industry. This would be in sync with the beneficiation and value-addition thrust of the country. The jewellery

industry is a highly lucrative industry, with 70% of gold produced globally going into this industry as reported by this author in a 2012 article on the price dynamics of the world gold market published by the Chinese Business Review-Journal.

3. GREEN ENERGY TRANSITION AND INDUSTRIALIZATION:

Building reserves of lithium, especially for a country that is so greatly endowed with the mineral, is foundational to the development and strengthening of the local lithium value chain including the production of petalite concentrate, lithium carbonate, lithium-ion batteries and eventually the electric vehicles (EVs) themselves. This will aid the green transition thrust in the country. The strengthening of local value chains for the other minerals specified will also spur industrialization as these minerals, besides their application in jewellery industry, have many industrial applications in automotive, computing, electronics, dentistry, chemical industry catalysts and heavy underground works (such as drillina).

4. GOLD AS AN INVESTMENT ASSET:

Gold is the main competitor to hard currency, especially the USD, as a store of value as indicated in the 2012 report alluded to above. With Zimbabwe using USD as a currency, the country is exposed to the risks associated with US economic (especially exchange rate) and political volatilities, and having a big reserve of a safe haven such as gold is a big buffer for such risks. Gold is also a better store of value than purely monetary assets because its value is not fiduciary, but intrinsic (since it is useful as a commodity in itself) as compared to say, bonds, securities, equities and legal tender (paper money).



5. Gold coins and macroeconomic stabilization:

Closely related to, albeit subtly different from, the above point, is the fact that Zimbabwe has embarked on the use of gold coins as a store of wealth for individuals and companies in the country. Getting royalties in the form of gold itself automatically supplies the Government with the raw materials it needs to produce the gold coins in greater numbers than it is currently doing. Thus, it will be possible to broaden the benefits of this policy to a greater percentage of the population when the Government receives raw gold from a source where there is no direct competition with the export market. Gold coins have become an important macroeconomic stabilization tool as they mop up excess liquidity in the economy and exerts downward pressure on inflation.

Continued on the next page>>

6. BROADENING OF GOLD TRADING OPTIONS FOR GOVERNMENT:



With the Government as an independent holder and exporter of gold given that the Fidelity Gold Refinery is a partially privatized entity, it can choose various appropriate ways of trading its gold without the pressure of private shareholders. It will have the liberty to engage in spot trading, forwards contracts, futures contracts, options, or hedging (against unfavourable price movements).

7. REDUCED TRANSACTION COSTS:

This policy avoids the cost which would be associated with the sale of the four mineral commodities (the half that now constitutes royalty) and the various processes involved in the payment and collection of royalties in monetary form. Basically, it reduces transaction costs both for government and mining companies associated with the processing of royalty payments, which, if gross value-based would include exporting the minerals first.

8. INTERNATIONAL LOAN REPAYMENTS:

The International Monetary Fund indicates on its website that it may accept gold in loan repayments by member countries, though it will be evaluated at prevailing prices in the market ("Gold and IMF", https://www.imf.org/..., retrieved on 10 November 2022). This to some extent could simplify the repayment process for Zimbabwe if the country manages to build a big reserve of gold from product royalties as it avoids many transaction costs related to money-based royalties.

9. EDUCATION AND TRAINING:



These mineral reserves can be used as samples in the promotion of minerals-related education and training, which is a component of one of the eight principles underpinning the Zimbabwe Artisanal and Small-Scale Gold Mining Strategy 2022-2025 as indicated in the October 2021 draft.

10. PRODUCTION SHARING MODEL:

Receiving royalties in minerals already sets the stage for the implementation of Production Sharing Agreements (PSA) in the oil and gas sectors which could be considered as a viable option in those sectors in future, as is the case in many other oil and gas producing countries.

Blanket Mine on course to achieve 2022 top-end gold target



Victoria Falls Stock Exchange listed gold focused miner, Caledonia Mining Corporation PLC's Blanket Mine in Gwanda is on track to achieve the top end of its production guidance of between 73 000 to 80 000 ounces of gold in 2022 cementing its place as one of the leading producers towards the achievement of US\$4 billion annual gold revenue by the end of 2023.

Rudairo Mapuranga

Caledonia recently declared a quarterly dividend of 14 United States cents (US\$0.14) On each of the company's shares as the company performs significantly towards becoming a multi-asset gold miner.

The company's Chief Executive Officer Mr Mark Learmonth said Caledonia has been significant strides towards becoming a multi-asset gold producer in 2022 and it was on course to achieve 2022 gold targets.

"In January 2022, the Company announced that it was looking to evolve the business with a strategic pivot in the future direction of Caledonia as it pursues its strategy to become a multi-asset gold producer. At that time, we had recently announced the purchase of the Maligreen claims and during the course of the year, we made significant advances in this area, culminating in the publication of an updated technical report on Maligreen last month. In July, we announced that the Company had signed an agreement to purchase Bilboes Gold Limited; and a few months later the Company acquired Motapa Mining Company UK Limited, the ultimate holding company of an exploration project adjacent to Bilboes.

"This was achieved alongside three record quarters of production and we are on track to achieve the top end of our 2022 production guidance of between 73,000 and 80,000 ounces of gold. The Company has come a long way in the last 12 months as we continue to pursue our strategy of becoming a multi-asset gold producer," Learmonth said.



Government allocates \$1.5 billion towards exploration



he 2023 National Budget has allocated \$1.5 billion for exploration activities as the country seeks to rely significantly on mining for economic revival.

Rudairo Mapuranga

According to the Minister of Finance and Economic Development Prof Mthuli Ncube through his 2023 National Budget Statement presented to the Parliament of Zimbabwe recently, the money allocated towards exploration activities will go towards satellite imagery and drone aerial surveys as well as towards the issuance of Exclusive Prospecting Orders (EPOs).

"The 2023 National Budget allocates ZWL\$1.5 billion for exploration activities, using satellite imagery and drone aerial surveys, as well as, issuing EPOs to the private sector," Ncube said.

Prof Mthuli Ncube said the government in 2022 granted twenty EPOs to various companies as the government seeks to create world-class mines.

"Mineral exploration is key to pave way for feasibility studies, improve information on mineral potential and valuation for ease of marketing, as well as accounting for revenues. In this regard, twenty Exploration Prospecting Orders (EPOs) were granted to various companies in 2022," he said.

Although hyped to be rich in mineral resources, Zimbabwe remains hamstrung

by the lack of exploration. A search through the available works always forms the first stage in the exploration of any mineral, Baseline geological, geophysical, geochemical, and Remote sensing data is necessary at this stage.

According to the Chamber of Mines Chief Executive Officer Mr Isaac Kwesu, the cadastre system will help the country in identifying areas that are explored, underexplored and as well as documenting activities currently taking place.

"The initiative through the mining cadastre which is currently being spearheaded by the government will help Zimbabwe know all coordinates that have been explored, underexplored as well as ensuring that new pegs that are currently been initiated are put into documentation. The mine cadastre system will go a long way in ensuring that the coordination of exploration activities becomes easier." Kwesu said.

There has been a clarion call by mining stakeholders to encourage investment in mining and exploration activities to hype the US\$12 billion mining sector by 2023.

Speaking at the Zimbabwe Mining promotional Conference at the Dubai Expo last year the Minister of Mines and Mining Development Hon Winston Chitando said the country's mining sector was a huge capital uplift therefore it was of significance for investors to bank their money into mineral exploration for huge

returns.

"Those who have the appetite for exploration, Zimbabwe is the place, and there is a huge opportunity for a capital uplift. Zimbabwe is a mature mine economy, we have got a functional system for the export of the product, the importation of capital goods and we have a functional system for the importation of raw materials. All these make Zimbabwe a successful mining" Minister Chitando said.

According to figures released by renowned Consulting Groups in the past, Zimbabwe's spending on exploration is "the lowest among leading mining countries".

Between 1989 and 2017 Zimbabwe's share of the global exploration budget fell from 0.2 per cent to literally 0 per cent.

Globally, around 10 per cent of all capital expenditure in mining goes towards exploration, in Zimbabwe, it is near to 0 per cent, and the country is not replacing the minerals that it is mining.

The Geological Society of Zimbabwe (GZS) Chairperson Kennedy Mtetwa has been on record sighting that exploration was key to establishing new world-class mines calling for the government to timeously issue Exclusive Prospecting Orders (EPOs).

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ZAMBEZI GAS

UNDERGROUND OPERATIONS NEAR

ne of the country's biggest coal producers, Zambezi Gas is currently developing work plans to commence underground mining at its coal mine in Hwange, the company's mining manager Laston Mwase said.

Rudairo Mapuranga

Speaking during the Association of Mine Managers of Zimbabwe (AMMZ) technical visit at its operations in November Mwase said the mine which is currently one of the biggest open cast mining in Zimbabwe the mine was planning to do underground mining because feasibility studies have shown that it's cheaper going underground than open cast mining.

"We are a relatively deeper mine, we started off the Southern pit at 1 to 5.6 km, and the Northern pit can go higher to 1:7km. These are very deep pits and very costly. For underground operations we will ensure that we forego or complement whatever we are doing as open cast mine because it's relatively cheaper going underground as we will be breaking into coal without hindrances." Mwase said.

Mwase said the development of the mine's Northern pit will enable it to develop plans for underground mining as it is giving it a leeway to start cutting for underground operations.

"it is our wish that we start as soon as possible, the commencement of Northern pit operations has given us sort of a development stage because we are opening up. So, should resources permit, we will get a continuous mine. We will start cutting because the development work is already underway," he said.

He said, in terms of exploration, Zambezi gas and coal mine has done partial exploration and is planning to invest extensively into exploration to quantify the underground resource which currently is estimated at 200 million.

"So far we have partially explored the underground reserve, the strong approach in terms of exploration so that we can quantify the quantity of reserve in total but it's estimated at 200 million tonnes," he said

The company is currently producing between 120 000 and 200 000 tonnes of

coal per month.

Through its Operations Director Menard Makota Zambezi Gas said it requires more than US\$2 billion to fund its capital expenditure (CAPEX) requirements and expansion plans for 2023 and beyond. He said the mine has a challenge in acquiring capital at the same time interest rates from banks are too high.

"Capital is one of the challenges we have at the moment at this mine. There is a huge market for coal locally and outside the country. You can have any coal tonnage and still get it sold but currently, we are having capital challenges. This explains why we had to buy our heavy plant open pit equipment in two stages.

"We bought the first set of two excavators, four dumpers, a dozer, and a grader for over US\$7 million. We are bringing the second set of an excavator, two dump trucks and a dozer for over US\$3 million. In addition to collateral, the bank interest rates are also prohibitive. The banks first gave us US\$3 million, and we supplemented with our own funds and shareholder loans." he said.



AMMZ strategises to achieve US\$12 billion industry

he Association of Mine
Managers of Zimbabwe (AMMZ)
has strategies to actively
contribute to the attainment of
the USD12 billion mining
industry by embracing the Fourth
Industrial Revolution (4th IR) and
Teamwork in common areas and topics
with other Chamber of Mines of Zimbabwe
affiliates.

Anerudo Mapuranga

Speaking at the 50th Annual General Meeting and Mining Conference held at Elephant Hills Resort, Victoria Falls in November which ran under the theme, "The Zimbabwean mining landscape,

transition towards the present day 4th IR" AMMZ President Eng Elton Gwatidzo said the leading association has a strategic thrust to advance the science and practice of mining and supporting disciplines.



He said the adoption of the 4th IR in mining in Zimbabwe will increase the working and production efficiency thereby advancing the country towards the achievement of a US\$12 billion mining

industry by 2023.

He said the adoption of the 4th industrial revolution will necessitate and increase the virtual reality and training centres for the Zimbabwe School of Mines (ZSM), enable the use of autonomous trucks, trains, and drills as well as advanced data analytics and be able to enable the adaptation of AngloAmerican's "Future Smart Mining" pilot nuGenTM Zero Emission Haulage Solution.

"The 4th Industrial Revolution, What is it? Breakthrough technologies, increase in automation, and use of smarter systems with the capacity to learn without any human intervention.





"Seamless connectivity through the Internet of Things (IoT), safety through the use of robotics to conduct unsafe/risky tasks, transparency as data can be shared through cloud computing and effective decision making through artificial intelligence and cognitive computing.

"Impact on Mining? Use of autonomous trucks, trains, and drills, including advanced data analytics., AngloAmerican's "Future Smart Mining" pilot nuGenTM Zero Emission Haulage Solution, Spot "the golden retriever of mining data" - Automated sensing and inspection,





capture limitless data and explore without boundaries. Potential application in Mine Rescue operations and Virtual Reality and training centres – ZSM," Eng Gwatidzo said in his presentation.



He said AMMZ will continue in 2023 with







some of the trusts from 2022 which include, Professionalizing the AMMZ and providing clear incentives to members, Developing sustainable fund-raising solutions to fund AMMZ projects and Use of social media and modern trends to necessitate the growth of membership and human resource pool. He said going forward to support the government's US\$12 billion vision, AMMZ will, Teamwork in common areas and topics with other CoMZ affiliates, Benchmarking & sharing proven practices and Strategic partnerships and relationship building with the industry.







Mine Managers urged to adopt VDT for mining efficiency

ine Managers have been urged to initiate a Value Driver Tree (VDT) in their mining operations to ensure productivity improvement through increased production volumes and maximizing value within the current asset base.

Rudairo Mapuranga

Speaking at the Association of Mine Managers of Zimbabwe (AMMZ) 50th Annual General Meeting and Mining Conference held at Elephant Hills Resort. Victoria Falls in November which ran under the theme, "The Zimbabwean mining landscape, transition towards the present day 4th Industrial Revolution" Council member of the AMMZ and Vice President-Elect Abel Makura said, VDT is "A way of visualizing a business model in a way that links the value metrics (what management stakeholders care about) to the operational drivers (the things that can be influenced to change the value metric).

Flexible value driver models can calculate the expected costs under different production levels and operating performance scenarios. Value driver models can be used to report a combination of operational and financial performance data covering all aspects of a mining operation.

Makura said mining companies through mining managers should adopt strategies to ensure improved productivity. Makura also said mine managers should create, direct operating time strategies, blasting strategies, hoisting strategies, and processing strategies for productivity improvement.

For Direct Operating Time, Makura said it is of great significance for mine managers to increase facetime by making sure miners work in the shortest time possible, improving the ventilation system and spreading working shifts over 24hrs.

"STRATEGIES (DIRECT OPERATING TIME), Increase facetime by getting employees to work in the shortest possible time. Reduce re-entry time through improved ventilation system and Spread working shifts over 24 hours," the AMMZ Vice President said.

For STRATEGIES in blasting, Makura said it is important to increase face advance, increase the number of per day and avoid unnecessary waste mining.

"STRATEGIES (BLASTING), increase face

length/face advance, Increase the number of blasts per day or reduce lost blasts, Avoid unnecessary waste mining and Mine within the best grade (tactical team deployment)" he said.

On Hoisting, Makura said mine managers should strategize to reduce cycle times through tramming distances, improve loading times and tonnes per load and at the same time improve tramming speed.

"STRATEGIES (HOISTING), REDUCE CYCLE TIMES THROUGH TRAMMING DISTANCES, IMPROVE LOADING TIMES THROUGH GOOD PARTICLE SIZE DISTRIBUTION (FRAGMENTATION), IMPROVE TONNES PER LOAD THROUGH BUCKET SIZE AND FILL FACTOR and IMPROVE TRAMMING SPEED (ROADWAY CONDITION)" Makura said.

He said for processing mine managers should be able to strategize to improve recovery, mill runtime and nameplate design capacity.

"STRATEGIES – PROCESSING, Improve recovery, Improve mill runtime and Improve nameplate design capacity," he said.



REAL-TIME VISUALISATION

important in improving mining productivity

he application of real-time performance monitoring tools into mining processes is of great significance to mining performance as it allows the identification of operation bottlenecks, Engineer Anotidaishe Chikaka said.

Rudairo Mapuranga

Through his presentation titled "Application of real-time performance monitoring tools and data analytics to improve productivity in the mining industry" which was presented at the Association of Mine Managers of Zimbabwe (AMMZ) annual general meeting held in Victoria falls in November, the University of Zimbabwe Faculty of Engineering and the Built Environment Department of Mining Chemical and Metallurgical Engineering lecturer said mining companies are not realizing full productivity potential (Loader Tons) due to low utilization of machinery and availability.

The AMMZ AGM ran under the theme, "The Zimbabwean Mining Landscape - Transition Towards the Present Day 4th Industrial Revolution."

According to Engineer Chikaka productivity equals rated capacity multiplied by overall equipment efficiency which depends on machine utilization and machine availability. This means that the use of real-time visualisation becomes important to deal with the bottlenecks of underutilisation and availability.



"Mining companies are not realizing full productivity potential (Loader Tons) due to low: Utilization and Availability," Chikaka's presentation reads in part.

Engineer Chikaka's presentation aimed to improve underground mining productivity by way of maximizing availability and utilization with data collection and

instrumentation coming from Sandvik LH621i Loader, Network of Sensors e.g. Engine, transmission, brakes, Loading sensors, Data transmission system and Data analytics using Microsoft applications: Power BI, RCA.

The presentation concluded that Realtime visualization into the mining process has great potential to allow the identification of bottlenecks in operations and is significant in improving availability, utilization hence productivity efficiency.

He recommended that mining companies should have critical spares on-site all the time, be able to install real-time visualisation and monitoring equipment to allow the follow-up on maintenance and operator training recommendations and increase the number of network nodes.





















AMMZ 2022 ANNUAL GENERAL MEETING AND CONFERENCE IN IMAGES













WHAT ZIMBABWE CAN IMPROVE IN 2023

hile the achievement of the US\$12 billion mining industry seemed to be a reality as witnessed by the growth and development happening in the sector, predictions have also indicated that the mining industry's vision will not be achieved as many areas need to be improved.

Rudairo Mapuranga

The State of Mining Industry Survey Report concluded that in 2023, the mining industry Prospects are positive indicating that the achievement of the US\$12 billion mining roadmap was within reach, however, there was a need to address challenges that the sector was facing for the vision to be achieved.

"Generally the mining industry prospects for 2023 are positive, The industry has great potential to grow and maximize its contribution to the socioeconomic development of the country. This potential can be unlocked if the identified constraints are resolved," reads the report in part.

Constraints as indicated by the state of Mining Industry report

The state of Mining Industry report has

indicated that electricity challenges, recent increases in royalties, and foreign currency shortages among other constraints have the potential to upset the achievement of the US\$12 billion industry.

Through the report, most mining executives indicated that they were facing difficulties in accessing adequate foreign currency to meet their operational requirements. The majority reported that the 60 per cent foreign exchange retention is low and puts production under pressure. This according to the captains of the industry will lead other projects to shut down thereby upsetting the US\$12 billion industry.

The report also indicated that the recent increase in electricity tariffs which are to be paid wholly in foreign currency was a major challenge. Analysis of survey data shows that the effective increase in the forex required to pay electricity bills is around 107 per cent. This means that much of the profits required in expansion drives will be channelled towards bills thereby posing a challenge towards the achievement of the US\$12 billion mining industry.

The report also indicated that the recent upward review in royalty for platinum and lithium as well as the anticipated implementation of beneficiation tax for PGMS will increase the forex required to pay the increased taxes. More taxes means less reinvestment in other exploration projects and in value addition and beneficiation facilities.

The report also indicated that the legislation of the multi-currency system that has seen most suppliers and service providers demanding payments exclusively in foreign currency should also be addressed.

"Mining executives indicated that recent increases in royalty has resulted in some mining project's Net Present Values becoming negative and unattractive to investors. Some executives indicated that they will suspend projects while others are considering terminating some projects.

"Mining executives indicated that the increase in electricity costs will consume on average 20% of mining companies' stay-in-business capital budgets which are largely funded from retained earnings. From the survey data, the average level of optimal tariff increase was 4%, equivalent to a tariff increase to USc10.2/kWh.

Continued on the next page>>



"Survey findings show that electricity consumption is expected to increase by 20% in 2023, while diesel consumption is expected to increase by 39% in 2023. Most respondents cited ongoing capital projects as the major drivers of energy usage in 2023. Mining executives, however, are expecting the energy situation to remain depressed in 2023," the report reads in part.

Other challenges that need to be addressed



According to Mineral Economic Expert Lyman Mlambo, there are outstanding overarching issues which need to be addressed in a matter of a few months to inspire immediate confidence for the industry to move larger volumes through the supply chain. These include:

(1) Completion and adoption of the mining policy document as soon as possible.

That will be an immediate confidence boost for those mines already producing and those at the development stage as these are the ones that will make a difference given a short time left (one year);

(2) Finalization of the amendments to the Mines and Minerals Act.

Parliament should adopt the

amendments as soon as possible. These amendments will have a more immediate impact on business confidence than policy;

Enhancement of the gold mobilization drive by establishing more buying centres



Gold is the mainstay of the small-scale mining industry. It is mined in very remote areas of the country which makes it valnerable to unscrupulous buyers. The government's estimates of US\$1.2 billion a year lost through illicit gold trade is partly contibuted by distant gold buying centres. More buying centres potentially minimise leakage.

4) Review of the forex retention level, which has remained a sticking point between industry and government.



Either the percentage surrender requirement to be liquidated into local currency at the official exchange rate should be reduced from the current level of 40% and/or mining companies should be allowed to use it to meet some

government statutory payments as well as other payments for government services priced at the official exchange rate. This could quickly push up the production levels and volumes of sales:

(5) Quick implementation of the gemstone formalization drive by

facilitating this initiative in every possible way, for example, setting aside a financial facility to facilitate its initial takeoff. The only gemstone included in the USD12 Billion target is diamond, which is projected to contribute US\$1 billion. If we were to consider coloured gemstones, the gemstone sector as a whole can achieve well over US\$1 billion. Development of markets is another important aspect the MMCZ together with its appointed buying sub-agents should seriously focus on for easy uptake of mobilized gems," Mlambo said.



What miners need to do

According to the Deputy Minister of Mines and Mining Development Hon Dr Polite Kambamura, miners should continue to work with the government in addressing challenges arising from the sector. He said miners should also support the government's vision so that the industry can grow and develop to sustain economic revival.

"Miners should continue to work hand in glove with the government and complement Government efforts towards the achievement of this US\$12 billion milestone. They should take up the beneficiation initiative as outlined under the NDS_1 where we are supposed to beneficiate our minerals before export. I would like to urge miners to come up with beneficiation facilities. Those that have not taken up expansion drives on their operations should start looking towards that direction and look forward to explore on other assets to expand the life of their mines," Dr Kambamura said.



ASM GOLD MINERS outclass primary producers

old deliveries to the country's sole buyer and exporter Fidelity Gold Refinery (FGR) is close to achieving the annual target of achieving 33.3 tonnes up to November 2022, a 31 per cent increase from the same period last year.

Rudairo Mapuranga

During the period, Artisanal and Small Scale Miners (ASM) contributed over 68 per cent of the deliveries (22.9 tonnes) while the primary producers contributed 10.4 tonnes.

Gold deliveries also increased by 33.8 per cent during the first 10 months of the year compared to the same period last year, raising the prospect that Zimbabwe might achieve the 35-tonne target for 2022.

According to FGR General Manager Mr Peter Magaramombe, the massive increase in deliveries has been necessitated by a host of measures taken by FGR and the Reserve Bank of Zimbabwe (RBZ) including timeous payments and incentives.

"The 5% Gold incentives to the small-scale miners are key, timeous payment to our miners, and incremental good incentives to the large-scale miners," Magaramombe said.

The 33.784 per cent increase saw 29 460.6532Kg of gold being delivered by the end of October 2022 compared to 22 024.3507 kgs delivered during the same period last year.

Artisanal and Small-Scale Miners (ASM) have contributed 67.8 per cent of the total deliveries, sending 19 987.6292 kgs compared to 9 473.0240 kgs delivered by the large-scale producers. ASM deliveries increased by 54.3 per cent from 12952.3801 kgs delivered during the same period last year with large-scale producers' gold deliveries increasing by 4.4 per cent from 9071.9706 kgs delivered during the same period in 2021.

Gold deliveries to FGR in the nine months to September 2022 grew by 36 per cent to 25,7 tonnes, from 18,9 tonnes in the same period a year earlier.

According to FGR statistics seen by this publication, overall deliveries stood at a 41.0734 per cent increase to 22290.4183 kgs during the period January to August of 2022 compared to 15800.57 kgs delivered during the same period last year.

Large-scale producers increased their gold delivery by 5.025 per cent to 1086.53 kgs in August 2022 compared to 1034.54 kgs in the same period last year. The Artisanal and Small-Scale Miners (ASM) increased their deliveries by 18.27 per cent to 2263.2531 kgs in August 2022 from 1913.48 kgs in August 2021.

FGR is confident that gold deliveries to FGR will reach 40 tonnes in 2022 as a result of notable expansion projects by Large producers as well as the growth in ASM projects.

According to FGR General Manager Mr Peter Magaramombe, his organization is confident that if the government maintains gold delivery supportive arrangements in place (gold incentives schemes, 100 per cent retention for ASM to mention a few) deliveries will increase to even surpass the 40 tonnes gold target.

"If the current gold conditions that are in place are maintained or improved, projections of gold deliveries to Fidelity Gold Refinery will be 40 tonnes as at 31 December 2022.

"Why 40 tonnes? FGR is expecting to see growth in gold deliveries from the Large Scale Miners sector mainly due to notable



expansion projects by Blanket Mine, Freda Rebecca (Shamva), Eureka Gold Mine and Riozim (Cam and Motor). Growth in the ASM sector is to be sustained by the favourable pricing, availability of cash and the retention of the incentive scheme.

"What are some of the measures that we have put in place to maintain the positive growth in gold deliveries to FGR? Maintain the forex retention of the LSM 80-100% on the incremental gold delivered to FGR. Maintain the current timeous payment to both large-scale and artisanal and small miners. FGR to continue to lobby the government to continuously provide favourable policies to miners.

"FGR will continue funding the operations of the small-scale miners and continue finding solutions for progressive growth of ASM so that they can graduate to become Large Scale miners. Fidelity shall continue to work closely with the Ministry of Mines and Mining Development and other Government departments to ensure that the gold leakages are minimised.

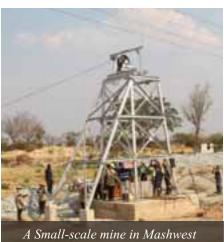
"In conclusion, the measures that I have highlighted were put in place to support an increase in gold production and shall be maintained and reviewed from time to time in order to achieve the 2023 vision of a Four Billion United States Dollar gold industry by 2023," Magaramombe said.

According to the Deputy Minister of Mines and Mining Development Dr Polite Kambamura, the government's positive policy intervention in the gold mining sector is bearing fruit. He added on saying the government was eying more growth in the gold industry. "Government positive policy intervention into the sector is bearing fruit. The gold sector was incentivised by the government through the Reserve Bank of Zimbabwe, this has seen an increase in gold deliveries to FGR. However, the

sector has the potential to score higher," Dr Kambamura said.

FGR statistics also show that gold delivery to Fidelity in July increased by 4.9 per cent increase to 2963.91 kgs from 2824.61 kgs delivered in 2021 with the ASM deliveries increasing by 2.5 per cent increase to 1998.12 kgs from 1950.30 kgs during the comparable month of 2021 while large scale gold producers deliveries also increased by 10.5 per cent to 965.78 kgs from 874.31 kgs in 2021.

Gold deliveries in June however



decreased by 5.202 per cent to 2 805 kgs from 2 959.0733 kgs delivered in June 2021, ASM deliveries however increased to 1 968.01 from 1 833.46 delivered in June 2021 with the large-scale deliveries decreasing significantly to 837.11 from 1 125.60 delivered in June of the previous year.

In May 2022 total deliveries to FGR increased by 79.54 kgs per cent to 2994.75 from 1668.01 kgs delivered in May 2021, with small-scale miners accounting for 1 939.07 kgs from 783.81 kgs delivered in May the previous year while large scale miners delivered 1 055.68 kgs from 884.19 kgs delivered the previous year.

FGR figures show that in April 2022 gold deliveries increased by 3.717 per cent to 1621.97 kgs from 1563.83 kgs in March while Large scale producers' deliveries decreased by 14.13 per cent to 859.44 kgs from 1000.91 kgs produced in March.

The statistics show that overall deliveries to Fidelity in April decreased by 3.249 per cent to 2481.41 Kgs from 2564.7461 kgs delivered in March.

During the first quarter of 2022 gold deliveries jumped 92 per cent to 7.695 tonnes from 4.016 tonnes in the comparable period of 2021.

The March 2022 gold output spiked 39 per cent to 2.564 tonnes from 1.8 tonnes achieved during the comparable period following the 5 per cent mining incentives put in place by the central bank.

Of the 7.695 tonnes delivered during the first quarter of 2022, small-scale miners delivered 4.949 tonnes against 2.746 tonnes from large-scale miners.

Large gold producers delivered 11,2 tonnes to Fidelity in 2021 whilst small-scale producers contributed 18,5 tonnes. The highest tonnage of gold was delivered in the fourth quarter when small-scale miners delivered a record 7,6 tonnes, whilst primary producers weighed in with 3,1 tonnes.



INTERVIEW: Tanaka Solomon Nyabadza, Magnus CEO



Tell us a bit about yourself

Tanaka Solomon Nyabadza known as "Tanaka Salaam" aged (30), is a young entrepreneur, diamantaire and mineral resources developer. He is a God-fearing, humble, confident, educated and hardworking young man. He comes from a humble background, was born in Bulawayo and grew up in Mutare. Born in a family of 2 and he is the firstborn.

He grew up playing a lot of cricket and he was very good and talented at it. He played professional cricket at club level for Westside, BAC and Tuskers Franchise. I was enrolled in Zimbabwe Cricket Junior Winter Academy for 3 months in Bulawayo and after graduation, I then stopped playing cricket to focus more on my education.

I studied a lot of things and am still studying though. I am a holder of professional qualifications from two universities and colleges where I mastered in areas of Information Technology, Gemology, Diamond Cutting and Polishing, Explosives Engineering, Mineral Resources Management, Mine Management, Mineral Resource Evaluation, Mineral Processing, and Occupational Health, Safety and Environmental Management.

Besides working, I enjoy spending my free time praying, gardening, fishing, hunting, camping, playing cricket, travelling and chilling with friends and family.

What influenced you to venture into the mining industry?

I think mining is my calling. When growing up, mining was around me since a lot of gold and diamond mining was happening in Mutare and it was my dream to own a mining company.

Around 2007- 2008 during the Marange diamond rush, my uncle called me to join him and his friends to pan diamonds at

Marange Diamond Fields. If recall well, when my uncle asked me to join him at Chiadzwa, I was doing my final year as a senior at Mutare Boy's High School and at the time, schools were closed due to strikes and economic crisis since our country was facing some seriously challenging times and there was hyperinflation, shortages of basic commodities and local manufacturing industry was closing.

As a young fella, now being in Chiadzwa involved in the chaos of artisanal mining in Marange Diamond Fields, my passion for mining grew more. That same year the government took control and stopped artisanal mining thereby formalising the diamond sector.

What are your plans for mining development and growth, this includes both CSR and ESG?

I do believe that sustainable mining is essential to global development. To support the transition to a more sustainable world, I plan to redirect and realign mining focus on four themes:

¿Decarbonization in the mining value chain – Invest in technologies that will help Magnus and its customers reduce carbon emissions, supporting their goal to become carbon neutral by 2050.

- ¿ Zero-waste mining Reduce waste and the environmental impact of mining while supporting the circular economy and generating new revenue streams.
- ∠ Energy transition metals Accelerate the supply of essential metals to power the energy transition and foster emerging demand drivers
- ∠ The future of mining Invest in disruptive technologies that will change how miners operate.



Recently your company Magnus, partnered with Sixth Wave to deploy IXOS gold extraction and purification tech in Zimbabwe can you please tell us more about this partnership?

Our partnership with Sixthwave is very important to Magnus, Zimbabwe and the global mining industry at large. The ongoing field test works and deployment of IXOS® gold extraction and purification nano-technology in Zimbabwe is to validity the superior attributes IXOS® as combined to Activated Carbon are:

IXOS®

- · No Regeneration or Descaling
- · 3 Hour Cycle Time
- · Reusable Eluent
- · Less Medium for Adsorption/Desorption
- & Recovery
- System (1/5 size of Equivalent Carbon D.R.)
- · Operated @ 60C and no Press Required
- Higher gold capture approximately
 25g/kg (+10%)
- · 4x Higher IXOS® Gold Purity
- 18 x Lower IXOS® Contaminants

Activated Carbon:

- · Stripping at High Pressure (50 psi) and High Temp (~160°c)
- · Regeneration at 500-900°c
- · Long Stripping Cycle Times (24-48 hours)
- · Requires Complex Instrumentation

Magnus and Sixthwave are also finalising the discussion for experimental test works for IXOS® Mining Technology for the extraction of other minerals such as lithium, Nickel, Cobalt, molybdenum and other rare-earth metals.

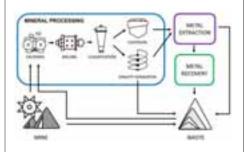
What is your assessment of the mining sector in Zimbabwe and where do you see it in 5 years?

The mining sector in Zimbabwe is booming and the government is putting efforts and reforms that promote the mining sector from the grassroots. In 5 years I foresee the Mining Sector in Zimbabwe as developed more than our regional peers or it would be at the same level as Canada and Australia.

Recently, there have been power challenges, how are these power challenges affecting mining projects and what should miners use as an

alternative to these power cuts?

I think mining companies need to invest more in advanced mineral technologies that consume less power and that are very fast in extraction and processing in their mining operations whilst they meet their production targets cost-effectively, efficiently and economically. They must shift from depending more on grid electricity to solar technologies.



What is your take on the ASM and what ideas should be implemented to witness the complete growth of ASM?

The government must have funding, technical and mentoring initiatives across the provinces to make it available or accessible to ASM with great potential, especially in areas of exploration, mining, technical equipment and services

Does Magnus have plans to assist the growth and development of the ASM?

Magnus is in the process of establishing a division focusing on mining technical equipment and services to work directly with ASM. We are also liaising with international financing and mining powerhouses to mobilise monies, technologies and experience needed to assist in reshaping the mineral resources exploration, development, mining, beneficiation and trading of the local mineral resources on the global markets.



Zimbabwe bans raw Lithium exports



imbabwe has banned the export of raw lithium to enable value addition and beneficiation in an effort to see the country benefit from the clean energy

Rudairo Mapuranga

The country has been losing millions of dollars from raw lithium exports with President Emmerson Mnangagwa expressing discontent with the way the lithium clandestinely left the country. This has led the government through the Minister of Mines and Mining Development Hon Winston Chitando to ban the export of lithium through section

The ban however excludes the export of lithium concentrates, which all the major lithium miners in the country are set to produce.

3 (1) (a) of Base Minerals Export Control Act [Chapter 21:05] in an effort to ensure that the vision of the President to see the country becoming an upper-middle income economy has been realized.

"UNDER the powers conferred upon me by section 3(1)(a) of the Base Minerals Export Control Act [Chapter 21:05], I, Winston Chitando, MP, Minister of Mines and Mining Development, by this my order direct that with immediate effect as follows:—

This order may be cited as the Base

Minerals Export Control (Unbeneficiated Lithium Bearing Ores) Order, 2022.

In this order— "lithium-bearing ore" means any mineral ore containing lithium; "unbeneficiated lithium means any lithium in whatever form that has not undergone processing to an extent that would exempt it from the payment of export tax under section 12B ("Collection of tax on exportation of unbeneficiated lithium; determination of value thereof") of the Value Added Tax Act [Chapter 23:12];

- (1) No lithium-bearing ores, or unbeneficiated lithium whatsoever, shall be exported from Zimbabwe to another country except under the written permit of the Minister given under subsection (2).
- (2) On written application by any party—
- (a) wishing to export samples of lithiumbearing ore or unbeneficiated lithium for assaying outside Zimbabwe;

or

"(b) to a miner or exporter of lithium upon production of written proof satisfactory to the Minister that there are exceptional circumstances justifying the exportation in question and that the lithium bearing ores or unbeneficiated lithium in question have been valued in terms of section 12D(3) of the Value Added Tax Act

[Chapter 23:12] for purposes of payment of the export tax on unbeneficiated lithium, that is to say—the market value thereof on the date of exportation has been determined by reference to a reputable metals exchange; or

"(ii) its value is reflected on any document required to be delivered in terms of the Customs and Excise Act [Chapter 23:02] for its exportation under that Act.

" 4. To avoid doubt—

(a) section 5 of the principal Act provides that "An order shall have effect notwithstanding anything inconsistent therewith in any other enactment or any trade or customs agreement to which the State is a party."; and

"(b) section 6 of the principal Act provides that any person who contravenes or fails to comply with any order or with the terms and conditions of any permit issued to him or her under an order shall be guilty of an offence and liable to—

"(i) a fine not exceeding level 9 or twice the value of the base minerals in respect of which the offence is committed, whichever is the greater; or

(ii) imprisonment for a period not exceeding two years; or to both such fine and such imprisonment," The Mines Minister said



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• AXLE REPAIR & MAINTENANCE • SERVICE CONTRACT



