



**MADI**

Minerals Africa Development  
Institution

# MADI AFRICA

Times

Newsletter

October - 2022 - Issue



## **EDITOR'S NOTE**



### **Greetings from Minerals Africa Development Institution!**

This month was a great milestone in the history of MADI. We were able to participate in the esteemed 11th Annual Mineral Wealth Conference organized by the Uganda Chamber of Mines and Petroleum. We were able to exhibit our work in the shaping of the African narrative on minerals and economic development.

We were also able to have our second session at the Science Summit of the United Nations General Assembly (SSUNGA77) which featured prominent speakers under the theme “African Leadership for African Development through Sustainable Mineral Resource Exploitation featuring prominent experts from all over Africa.

Find these and many more riveting updates in our October issue of the MADI Africa Times newsletter.  
Happy Reading!

*Follow our social media handles @MineralsAfricaDevelopmentInstitution for more regular updates.*

**Charlotte Kwitonda - Editor in Chief**



## **EVENTS**

Here's a look at some of our upcoming exciting events at Minerals Africa Development Institution (MADI):

### **THE 11TH ANNUAL MINERAL WEALTH CONFERENCE.**



*The group photo of most of the high-profile conference attendees.*

The 11th annual Mineral Wealth Conference (MWC) was organized by the Uganda Chamber of Mines and Petroleum (UCMP) in partnership with the Ministry of Energy and Mineral Development (MEMD). The conference plays a critical role in creating opportunities for Uganda's domestic and international mining interests since it brings together key policy and decision-makers, business leaders, bankers, academia and mining investors from all over the world.

In its 11th year, the Mineral Wealth Conference was a two-day conference held physically at the Kampala Sheraton Hotel on 11th and 12th October 2022 under the theme: **“Positioning Uganda’s Mineral Sector for the Green Energy Revolution.”**

It attracted the interest of various categories of people, ranging from Government officials to business stakeholders, environmental and social activists alike. In attendance was;

1) Hon Ruth Nankabirwa – Minister of Energy and Mine Development.

2) Ms. Agnes Alaba – Director Directorate of Geological Survey and Mines – Uganda.

3) Hon. Dr. Monica Musenero – Minister of Science, Technology and Innovation.

4) Prof. Pamela Mbabazi – Board Chairperson, National Planning Authority.

5) Hon Richard Kaijuka – BOT Chairman – UCMP

6) Dr. Frank Dickson Mugenyi – Chairman – Minerals Africa Development Institution (MADI)

Discussions at the conference were focused on the dynamics of investment in climate change action today, the impact of climate change on mining, the opportunities and challenges in regional integration of mining projects, practical lessons from the years of development of Uganda's mineral sector and benchmarks from successful jurisdictions/ regions amount others and Minerals Africa Development Institution (MADI) was well represented.



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### What Went Down:

#### **Sir Richard Kaijuka BOT Chairman, Uganda Chamber of Mines and Petroleum UCMP**

opened the conference noting that Green minerals are highly demanded. Some of them include lithium, graphite, rare earth metals (REM), manganese, copper cobalt, among others.

Among the applications of these critical raw materials is:

- 1) Electric Vehicles
- 2) Offshore wind turbines
- 3) Mind Resonance Imaging (MRI) scan
- 4) Positron Emission Tomography (PET) scan

Uganda can supply these minerals for green energy transformation. He further exclaimed that positioning Uganda's mineral sector for the green energy transition is meant to be a collaborative effort between the private sector, Government and the populations (stakeholders).

Among the questions posed by him during his speech which were later highlighted on in the subsequent speeches, include:

- 1) Does Uganda have enough to position itself as an energy (global) mineral transition supplier?
- 2) Will these efforts help Uganda lip frog into sustainable economic development?
- 3) Is the legal and policy framework able to sustain this transition in its current state?



*Hon Richard Kaijuka together with Hon Ruth Nankabirwa having a brief tour on the MADI booth.*

The minister for Minister for Energy Minerals Development Hon. Ruth Nankabirwa officially opened up the conference and in her opening remarks she addressed the need for utilizing mineral resources for social & economic developments.

She remarked that the interest of Uganda is to make sure that we sustainably exploit our mineral resources for social and economic development. This is to be archived through seeking guidance from the private sector players and continuous discussions with the involvement of the population at large.

The minister for energy also stated that the government will continue to promote investments in the mining sub-sector with emphasis on value addition and that this development cannot be archived in a place where there are adverse climate change effects. She also added that for us to attain a smoother transition to green energy, we have to strike a balance between poverty and transition in order to do away with the use of coal and fire wood related use cases. She also hinted on the new Mining and Mineral law of Uganda, which





## **EVENTS**

has as of the day of this publication, been passed by H.E the President of Uganda. In conclusion, more surveys are expected to reveal additional minerals which are expected to attract investments.



On day 2, Hon. Dr. Monica Musenero, Minister for Science, Technology and Innovation gave an insightful presentation on “What is Uganda’s Strategy for Mineral-led Industrialization and Development?” She delivered a speech focusing on Uganda's Vision 2040. She highlighted that the government wants a massive shift of population from low to high-value occupations with corresponding incomes from the current \$506 a year to \$9,500 annually.

Dr. Musenero said that the national strategy is science-led social-economic transformation. This is where the mineral sector is involved. Value addition in the minerals will involve the transfer of technology to Ugandans and that is why we are saying no to raw mineral exports. She added that the vision is to make Uganda the best, most technologically advanced, and most

innovative nation in the region. Uganda has vast mineral potential and the only missing link is harnessing the resources that we have.

She said currently the focus is on developing iron ore to value add and obtain steel instead of continuously importing it yet we are richly endowed with the mineral.

Dr. Musenero said that companies are recycling scrap because of cheap energy, but Uganda has a lot of potential for renewable energy sources that can be tapped into to fuel the value chain of iron ore in-country processing.

These are:

- 1) Geothermal
- 2) Hydropower
- 3) Solar
- 4) Hydrocarbons.

Mr. Dennis Kusasira, a partner at ABMAK Associates presented a myriad of challenges involved in the in-country processing of minerals. He said that the current ban on raw mineral exports does not encourage investment in exploration or in developing mines and may not be helpful. He added that there is also a lack of downstream market so the government needs to think of how to create a balance that will allow investment to keep flowing in the country.

Hon Dr Musenero responded by saying that markets do not exist where there are no products. She told delegates at the MWC that government is ready to have discussions with investors, and it is not dictating but rather, the government wants to achieve vertical & parallel integration.





# EVENTS

It is only prudent to note that there were glaring opportunities as sited out by the two ministers which include but not limited to the following;

- 1) Investment.
- 2) Employment creation
- 3) Capacity building.



Dr. Frank Dickson Mugenyi, Chairman MADI whose keynote speech was about “Mineral sector potential of East Africa as a developmental block; Is a regional ‘green energy minerals complex’ attainable?”

He advised participants at MWC 2022 to add value to strategic minerals that meet the demands locally. In doing so Africa will benefit from its vast mineral resources while adding that most of those coming to mine have demands back in their home countries.



MADI's Head of Private and Public Sector and Stakeholder Engagements together with Mr. Gershom Mugizi, the Principal Geologist, Geoquest Exploration (U) Ltd after the interview.



The Minerals Africa Development Institution (MADI) Limited that represented on the conference.



UGANDA CHAMBER OF MINES & PETROLEUM | MADI | Ministry of Energy and Mineral Development



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**MADI AT UNGA**



- 7. Ms. Ndesihafela Ndivaye, Mining & Process Engineering Society Windhoek, Namibia.
- 8. Mr. Micheal Kiberu, MADI
- 9. Dr. Frank Dickson Mugenyi – Executive Chairman, Minerals Africa Development Institution (MADI).

**Highlights from the MADI UNGA session.**



On 28th October 2022, MADI held its second session at the Science Summit of the United Nations General Assembly (SSUNGA77) which featured prominent speakers under the theme “African Leadership for African Development through Sustainable Mineral Resource Exploitation featuring prominent experts from all over Africa.

These included:

1. Mr. Jean-Claude Guillaneau , French Geological Surveys (BRGM)
2. Dr. Abdul Aziz Ndaye, Geological Survey of Namibia (GSN), Ministry of Mines & Energy
3. Professor Nellie Mutemeri, School of Mining Engineering University of Witwatersrand & Mining Practice Director, Mutemeri Consulting
4. Ms. Anne-Karren Nguno, Geological Survey of Namibia (GSN), Ministry of Mines & Energy
5. Mr. Nerson Tjaros, EDS Pty Ltd; BI Dynamics Pty Ltd; Dryland Water & Energy Pty Ltd
6. Mr. Felix Bob Ociti, Uganda Petroleum Authority/ AUC AMREC Working Group

“African countries need to ensure they domesticate the AMREC system. Several pilots to this effect have so far been undertaken in Nigeria, Namibia and Uganda to mention but a few by MADI” - **Dr. Frank Mugenyi**

“To fully utilise our resources, we must know how much we have and where these deposits are. First we need a minerals inventory through mapping both at a national and regional level.” - **Dr. Abdul Aziz Ndaye**

“There are a lot of opportunities in utilising technology in the mineral resource sector.” - **Mr. Mike Kiberu**

“The youth are not an asset unless they are invested in. If we have minerals buried somewhere that we do not know, then we cannot call them assets. As Africans, we sometimes like to talk, but without action or implementation, nothing will work.” - **Mr. Nerson Tjaros**

“We need a proactive education system” - **Ms. Ndesihafela Ndivaye,**





# MADI TO FEATURE AT ZIMEC 2022



**ZIMEC**  
**2022**

**10** YEARS of ZIMEC

**10<sup>th</sup> ZAMBIA INTERNATIONAL MINING AND ENERGY CONFERENCE AND EXHIBITION**

**#ZIMEC2022 1 - 3 NOVEMBER 2022**

[WWW.ZIMECZAMBIA.COM](http://WWW.ZIMECZAMBIA.COM)

This year, ZIMEC 2022 will celebrate its 10th edition and will be held in Kitwe, the centre of Zambia's mining industry, where all participants will definitely benefit from an increased participation from both mining and energy stakeholders.

MADI has been invited as a keynote speaker to be represented by Dr. Frank Mugenyi. At ZIMEC 2022, MADI and other participants will be able to directly interact with officials from the government of the Republic of Zambia as the event is supported by the Ministry of Mines and Mineral Development as well as the Ministry of Energy. Zambia aims to increase its copper production to 3 million tons per annum within 10 years and energy production will need to keep the pace with new mines being opened.

To reflect this, the main theme of the event is "The Synergy Between Mining and Energy: Developing Sufficient Sustainable Energy to Satisfy Zambia's Mineral Production Goals". Other expert stakeholders who are participating in the event are the Chamber of Mines, Zambia and AZMEC.



# What's Inside?

A quick look into the world of critical minerals we use in powering our devices, infrastructure & our daily lives.

## A solar panel.

By Okello Leone George

Solar panels are a key technology in the race to sustainable energy development across the globe. They are loved for their portability, scalability & zero-emission properties, as well as its ever growing affordability & availability.

There are a minimum of 16 different critical elements that are used in the manufacturing of solar panels.

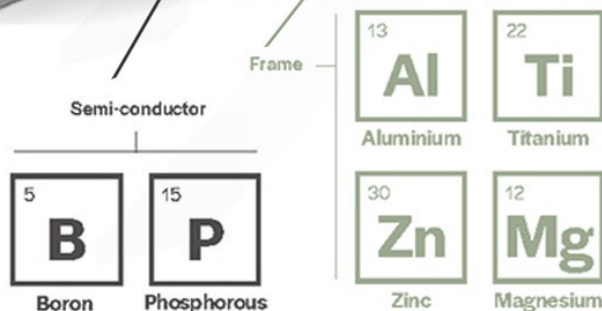
The key suppliers of these critical minerals globally include the Democratic Republic of Congo, China, Australia, Indonesia & Chile.

With an increasing global push towards sustainable eco-friendly methods & proper mining & labour regulations, the sector is looking to become more profitable for small & large scale miners & value addition businesses.



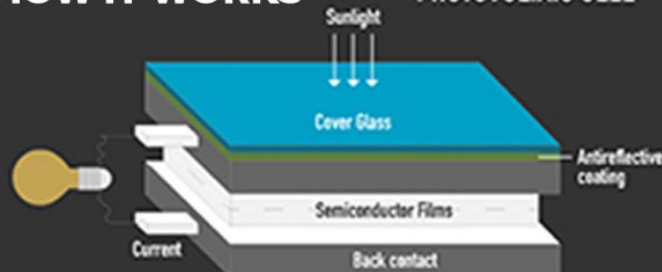
### Where in Africa can we find these minerals?

- **Boron** - South Africa
- **Tellurium** - South Africa, D.R.C., Zambia
- **Molybdenum** - South Africa, Namibia
- **Beryllium** - Madagascar, Mozambique, D.R.C, Zimbabwe, Rwanda, Uganda, South Africa
- **Germanium** - South Africa, Zambia, D.R.C.
- **Gallium** - D.R.C.
- **Indium** - South Africa
- **Silver** - Morocco, South Africa, D.R.C. Tanzania, Guinea Bissau
- **Silicon** - South Africa, Rwanda
- **Phosphorus** - Morocco, Western Sahara
- **Aluminium** - Guinea, Mozambique, Ghana
- **Titanium** - South Africa
- **Zinc** - South Africa, Burkina Faso, Eritrea
- **Magnesium** - South Africa, Nigeria
- **Copper** - D.R.C, Zambia, Uganda



### HOW IT WORKS

### PHOTOVOLTAIC CELL





## INTERESTING READS:

### COMMUNITY CONCERNS ON CRITICAL MINING IN AFRICA

By Janet Nsabuwera



As the world looks to transition to green economies that is, green energy, electric vehicles, green lifestyle, and critical minerals are tapped to be the main drivers of this movement, minerals like Cobalt, lithium, Rare Earth Elements, iron ore, etc are becoming highly sought after. This in turn has increased the rate at which mining these non-renewable resources is done.

While it is difficult to celebrate sustainability for an operation that exploits a non-renewable resource, communities' questions still loom large and they include;

Will critical minerals make a positive contribution to rural and regional development? Will critical mineral sourcing activities operate legally in harmony with national mining sector development policies and existing legal frameworks? Will operations comply with social standards, such as social security, occupational health, and safety, labour regulations, and access to social infrastructure (schools, medical centres among others) and an acceptable level of income? Will operations be environmentally friendly? Noise pollution, water bodies, spilling ores, and chemicals. Will there be no conflict between small miners and local communities and the degradation of traditional values?

Will there be harmony between small and large mining operations? Will there be continuous operation over a more extended period of time? Will there be existence of a sound planning basis for the use of the mineral, financial, material, and human resources? Will there be mine closure?

These and many more are some of the questions that communities in Africa have when it comes to mining. Communities in Africa should be directly engaged with mining companies. Communication between stakeholders is key to addressing community concerns on critical mining in Africa. The involvement of communities in the extraction of critical minerals will reinforce their commitment to building sustainable livelihoods. It will help promote dialogue among the different parties involved and facilitate a process that will lead to the establishment of a governance system that supports an inclusive growth framework based on social development and environmental conservation. MADI's main objective is to de-risk the African minerals sector in order to attract responsible investments both domestic and foreign, that will ensure that there are social and economic mutual benefits accruing equitably to all key stakeholders while taking environmental and climate change concerns into account.



argued that state-owned enterprises underperformed economically for several reasons including; inappropriate pricing policies, poor investment decisions, substantial overstaffing, and chronic management problems. Also, state ownership promotes corruption, enriches politicians and perpetuates poor management of mineral resources (Mbaku 1999).

#### **2.4. Gender inequality in the extractive industry.**

At the 4th World Conference on Women in Beijing in 1995, the United Nations said that; “poverty has a woman’s face and that 70% of the world’s poor are women” (Claudine and Learnado, 2012). Sadly, women account for up to 30 per cent of the global artisanal and small-scale mining workforce (Hinton et al. 2003) and up to 50 per cent in Africa (UNECA, 2002) in some cases (such as Guinea) the proportion reaches as high as 75 per cent (Hentschel et al. 2002). These gender disparities have been accentuated by the absence of strong political and economic institutions that could integrate gender dimensions into the mineral resource sector.

#### **3.0 Strategies for harnessing mineral resources for Africa’s development.**

The African mining vision says that “harnessing natural resources endowment in Africa is the key to Africa’s development.” The following steps are necessary in the exploitation of mineral resources for Africa’s development.

##### **3.1. Promotion of local contents.**

Promoting local content will stimulate broad-based economic development by encouraging economic gains from the extractive industries to trickle down to local businesses and communities. In terms of employment, it will foster local recruitment, training and career progression of the domestic workforce, gender mainstreaming, the development of local infrastructure and support the small and medium-sized service enterprises through purchase of local goods and services.

##### **3.2. Elimination of gender inequality in the mineral sectors.**

To promote gender equality in Africa’s extractive industries, there should be no discrimination between men and women in terms of workplace practices such as career advancement, remuneration, and a sense of belonging. Women should be allowed to occupy positions that enable them to be part of the decision-making body in the sector. This can encourage more women to join the sector and demystify the age-long narratives that society has about women working in a male-dominated work environment.

##### **3.3 Adoption of minority ownership of mineral resource sectors.**

Studies have shown that state-owned sectors or enterprises are less efficient economically than privately owned ones. Unlike many other mineral exporting African countries, Botswana has less than a majority share of its mineral resource sector. However, it is also unique in that it has exactly 50% ownership. By law, Botswana can demand between 15 and 25 percent of stock from mining companies, and it can purchase up to 50% (Cobbe, 1979). In fact, the parastatal De Beers Botswana Mining Company (DEBSWANA) is jointly owned by the state of Botswana and De Beers Mining Company, which is the sole diamond mining interest in the country. The state also has minority ownership of the next-largest extractive industry of copper-nickel, owning 15% of Botswana Roan Selection Trust. Other African countries need to learn from Botswana’s success.

#### **CONCLUSION**

The mineral resource sector wields great potentials for sustainable development in Africa. By following the recommendations made in this essay, we can achieve the African Union vision of “building an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in international arena.” The right time to change mind-set is now because African problems have African solutions. The clock is ticking!





## INTERESTING READS

### FEATURED ARTICLE: SUSTAINABLE ECONOMIC DEVELOPMENT: HARNESSING AFRICA'S YOUTH AND MINERAL RESOURCES

By Joshua John Inioluwa



#### Introduction

*"Africa is not a country, but it is a continent like none other. It has that which is elegantly vast or awfully little."*  
-L. Douglas Wilder

If potential was a place, its other name would be Africa: from the gold mines of South Africa to the cobalt deposits of the Democratic Republic of Congo; from the oil-rich plains of Nigeria's Niger Delta to the uranium deposits in the Republic of the Niger. Africa is home to an endless sea of mineral resources. To complete this match for economic prosperity undoubtedly made in heaven, Africa is home to a vibrant population with 454 million young individuals aged 15 – 34 years. If the achievement of socio-economic development was equivalent to starting a fire, Africa would have enough fuel and a flaming torch – or so it seems.

Against this backdrop of endless

possibilities – about one third of the world's mineral deposits and the second highest population of young people aged 15 to 34 years – emerges a baffling paradox. Africa is riddled with persistent socio-economic crises. Arguably, one of our leading problems is youth unemployment; there are an estimated 34.8 million unemployed African youths. To put this in perspective, the current youth unemployment rate in Southern Africa is a whopping 27.9% compared to the world average of 5.5%. This predominance of unemployed and underemployed youths constitutes a significant problem in itself and creates perennial problems of poverty, low quality of life, insecurity, instability and sluggish economic development.

#### Body

The African continent has adopted a grand plan for its development to catch up with the rest of the world and surpass it. The noble Agenda 2063 provides a vision for the "Africa we want" in the next 4 decades. To ensure the success of this agenda, we must develop and implement actionable policy solutions to Africa's youth unemployment problem by doing the following:

Establishing and Implementing Local Content: Local content can be described as "the value that an extraction project brings to the local, regional or national economy beyond the resource revenues." This extra value is gotten by establishing minimum standards for local participation: good-paying jobs for locals, supply chain preferences for local industries, transfer of intellectual property, etc. When properly implemented, local content boosts youth employment and encourages the transfer of intellectual and technical skills from foreign experts to citizens of African countries. Countries like Nigeria have implemented this policy with reasonable success. Nonetheless, a sound policy framework and effective monitoring systems must be in place to maximize the fulfilment of the objectives local content.





**Developing Human Capital:** Most mines and oil fields in Africa are built and maintained by foreign experts. The absence of adequately skilled manpower poses severe limitations to the extent to which African youths can participate in the extractive and refining sectors. The solution to this problem lies in developing Africa's workforce and by extension its youth through curriculum revisions to meet up with global standards and requirements as well as merit and interest based admission and training practices. Furthermore, adequate health-care service provision is essential for sustaining a vibrant workforce of youths. It has been well established that a skilled and effective workforce is paramount for attracting and maintaining foreign investment and sustainable development.

The protection of workers' rights must also be taken into consideration. African governments must address obsolete or poorly enforced laws which give room for workplace maltreatment, late or non-payment of living wages, dangerous work conditions and indiscriminate hiring and firing practices.

**Adding Value:** A major setback for the maximisation of Africa's mineral reserves is the exportation of unprocessed minerals. For instance, Nigeria, one of Africa's largest producers of crude oil, imports refined petroleum products, amounting to a 43 billion-dollar trade deficit for crude oil importation in 2020. Furthermore, the prices of unprocessed minerals are subject to wide fluctuations in global markets. Significant dips in price could affect a country's revenue, thereby limiting the government's ability to pay salaries and carry out projects.

The answer to this problem lies in adding value – refining products to finished or semi-finished goods which are more valuable. To add value, industries must be established, which translates to increased opportunities for training and employment. Furthermore, the African Continental Free Trade Agreement (AfCFTA) which began operation in January 2021 creates a market spanning over 30 countries. . In essence, there is a ready continental

market for goods; a development which will boost trading and provide the attendant benefits of economic growth.

**Investing in Research and Development:** In a bid to accelerate the industrialisation of African economies, the importance of research and development cannot be overemphasised. This often neglected part of education and development is responsible for technological advancements that have heralded industrial revolutions across the world. For Africa's youth to take full advantage of her mineral resources, we must stimulate and execute intensive research to improve on existing technologies and develop ingenious methods to extract, refine and process mineral resources. Value addition relies heavily on technological innovation. Moreover, intellectual property laws must be updated to reflect global trends and provide enough incentive for developing creative solutions and innovations.

**Adopting a holistic approach to providing soft and hard infrastructure:** Many of the barriers to Africa's industrialisation are traceable to the failures of soft infrastructure like government and administrative services, law enforcement, financial services and healthcare which translate to a deficit of hard infrastructure such as roads, railway lines, telecommunications, and schools, among others. There is an urgent need to address the lack of political will by training and electing young, focused and incorruptible leaders. Educational reforms, investment in research and development, industrialisation and other recommendation will require funding – an aspect where the African Development Bank can contribute significantly.

## **Conclusion**

Africa's potential for sustainable economic development is second to none. By utilising sound local content policies, developing human capital, adding value and adopting a holistic approach to governance, we can achieve and sustain significant socio-economic development in our continent.





# // MINERAL COMMODITY PRICES

Source: WORLD BANK COMMODITIES PRICE DATA

Commodity	Unit	August 2022 (Price Average)	September 2022 (Price Average)
Aluminium	\$/mt	2,431	2,228
Copper	\$/mt	7,962	7,749
Iron Ore	\$/mt	108.9	99.8
Lead	\$/mt	2,073	1,868
Nickel	\$/mt	22,057	22,858
Tin	\$/mt	24,647	21,145
Zinc	\$/mt	3,588	3,130
Gold	\$/toz	1,765	1,681
Platinum	\$/toz	909	881
Silver	\$/toz	19.7	18.9

Available at <http://www.worldbank.org/commodities>







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