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GLOBAL BUSINESS REPORTS

# MACIG

THE OFFICIAL MINING IN AFRICA COUNTRY INVESTMENT GUIDE

MACIG 2018  
PRE-RELEASE  
EDITION

## Dear Readers,

As our Africa team at Global Business Reports prepares the fifth edition of the Official Mining in Africa Country Investment Guide (MACIG) in partnership with the African Mining Indaba, what is clear is how quickly the investors' sentiment across Africa can dramatically change year-on-year in reaction to social and political developments and the uptick in the mining sector globally, hence the need for regular analysis increases.

Home to the African Mining Indaba conference, South Africa is a country with a long history of mining and the base for many mining service providers across the continent. Lately, however, investors are looking north into the Southern Africa region as political and economic uncertainty grips the former mining power. Challenges in one nation present opportunities in others - in this case Botswana and Zambia, both favoured by upticks in zinc and copper pricing and increased investment by gemstone majors.

In our research, this year based in Canada and Australia as well as on the African continent, we can report that investors continue to seek exploration opportunities in Côte d'Ivoire, Burkina Faso and Ghana, whilst Senegal and Guinea are gaining attention backed by encouraging investments. More favourable market conditions for nickel, lithium and iron ore indicate a more sustainable growth trajectory for the region following the gold project flurry of mid-2016. Gold, however, remains the key driver for the sector. Though security concerns remain, the recent attack in Burkina Faso may shake investors but should not be considered a deterrent. In fact, seeing the solid investments being made by companies such as Resolute Mining, IAMGold and Endeavour in the region, to name just a few, we can be encouraged that the West Africa investment flurry will not end any time soon.

Looking to the east, Ethiopia has been identified as the fastest growing economy in Africa for 2017, and the mining sector is showing impressive developments and attracting investments. Beyond the extensive exploration potential in Tanzania, the global headlines concerning Aca-cia's disagreements with the Government provides an important story for investors to follow, as protectionism become more important across the continent. We observe a new dynamic emerging between international majors and local stakeholders, which will set new precedents for investments in the region for years to come.

In the following pages, we share with you our analysis of the mining sector developments across Africa so far. We began MACIG 2018 with a brief two week stay in Abidjan, where we will return to complete our research in the region after the rainy season subsides. Next, we headed south to Zambia where we spent over a month conducting a thorough investigation into the value chain, hence the focus for this report's editorial content, followed by a brief stay in Johannesburg to catch up with our network there. The team is currently based in Addis Ababa and looks forward to updating our readership on this budding jurisdiction in the final editorial, and meanwhile we are watching intently as Ethiopia's more established neighbors sort out political kerfuffles, namely Tanzania in regards to the landmark case unfolding there. If you are attending our partner conferences where we are launching this report, Africa Down Under or London Mines and Money, we hope you have a successful event; to each of our interviewees, thank you again for providing the insights to make this report possible. Finally, to all our readers, we always welcome your feedback or interest in being interviewed, so please contact me at [lbrangwin@gbreports.com](mailto:lbrangwin@gbreports.com) or our regional coordinator, Leanne de Bassompierre, at [leanne@gbreports.com](mailto:leanne@gbreports.com).

### Enjoy the read!

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Anne-Laure  
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## MACIG 2018 Pre-Release

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# Southern Africa & the Copperbelt

Long considered a regional and global mining powerhouse, South Africa has been engulfed by a series of political shocks and economic underperformance that have taken a significant toll on its position as Southern Africa's leader in the extractives industry. Amid a back-drop of recession and accusations of corruption, in August President Jacob Zuma narrowly survived the eighth no-confidence motion held against him in parliament, underlining a country swirling with political dissent. Backed by President Zuma as part of his economic agenda to introduce stricter Black Economic Empowerment (BEE) rules, the new Mining Charter III now requires local mines be 30% black-owned at all times. South Africa's Chamber of Mines, which represents over 90% of the country's mining companies, has taken the government to court over the matter, and will argue that the charter constitutes an infringement on company law, international agreements and the constitution.

As companies prepare for a protracted period of legal proceedings, however, investors are loath to enter a climate with such long-term uncertainty, halting an already hurting industry. Nonetheless, Johannesburg remains a critical hub for regional operators and improving conditions in the commodity marketplace bode well for the rest of Southern Africa as investors eagerly look to other jurisdictions that boast the region's undeniable shared strengths. As host to some of the continent's most competitive infrastructure networks, a highly skilled labor force, and mineral deposits ranging from gold to copper and diamonds to coal, Southern Africa firmly remains a top destination for investment with developments in Botswana and the Copperbelt showing particular promise.

Although land-locked Botswana witnessed the closure of three mines over the past year, the stable and prosperous nation's diamond industry has experienced a turnaround in fortunes. As dynamism returns, companies are eager to enter Botswana's profitable diamond sector with DeBeers and Debswana posting double-digit growth in the value of production during 2016. In late May, Tsodilo Resources' subsidiary Bosoto was granted a prospecting license of 580 sq. km. in the Orapa Kimberlite Field, bordering Lucara Diamond's Karowe mine. Botswana Diamonds, in addition to its flagship project Frischgewaagt, located in South Africa, has two kimberlite exploration joint ventures in Botswana, a portfolio that includes 10 licenses in the Kalahari. These new initiatives in exploration, as well as adoption of new innovations, will be critical to enhancing the productivity of existing operations in Botswana's ageing mining sector. "We have noticed more openness to new technology and more of a need for mining companies to improve their efficiencies. Good ore is getting increas-

ingly difficult to access, and technology is needed to do this," said Shahram Tafazoli, president and CEO at Motion Metrics, a Vancouver-based mining technology provider that operates worldwide.

Projects in Botswana are not confined to diamonds, however, with companies developing noteworthy coal projects, while interest in copper and zinc is also growing. Australian-based Mount Burgess is currently developing a 30 million tonne zinc, lead and silver resource. Speaking about the company's plans, Nigel Forrester, managing director at Mount Burgess, said: "Our zinc resource is broken up into two deposits: Kihabe and Nxuu. We intend to develop the Nxuu deposit first as this presents a potentially low-risk path to early production at a modest capital investment. It is a very shallow, basin-shaped deposit with a maximum depth of 60 meters and the mineralization is totally oxidized. This means we can potentially produce zinc metal on-site through solvent extraction and electro-winning."

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Just as gold giant South Africa is suffering, the pick up in the copper price has presented a moment of opportunity for the Copperbelt region. The logistical challenges of operating in the Democratic Republic of the Congo (DRC) and its continued political instability remain fundamental deterrents. However, coupled with a robust cobalt price, the high-risk, high-reward paradigm associated with the DRC is becoming increasingly palatable as evidenced by a buzz of activity in the mineral-wealthy nation across a range of commodities. ASX-listed AVZ Minerals recently secured \$13.2 million in investment through an agreement with Huayou International Mining, which in return will acquire an 11% interest in the company. The funds will be used for drilling and metallurgical testing at the Manono project in the southern region of the country, prospective chiefly for lithium. In early 2017, Glencore purchased stakes in the Katang and Mutanda copper-cobalt mines for a value of \$960 million. Following intensive refurbishments, Ivanhoe Mines, in partnership with the state-owned mining company Gécamines, intends to reopen the high-grade copper-zinc Kipushi project, which has not operated since 1993.

As some players in the industry cautiously approach the opportunities afforded by the DRC, Zambia remains a strong option for the risk-averse investor with interest in the prospective Copperbelt despite political rumblings in the traditionally stable country. President Edgar Lungu has been

*“As an active member of the SAPP, and leveraging on Zambia’s ‘central’ location in Southern Africa, CEC is a recognizable player in the region’s power market, well positioned to move power from any location to wherever it is demanded in the region.”*



- Owen Silavwe,  
Managing Director,  
CEC

accused of sliding towards an authoritarian regime, largely due to the recently ended four month detainment of opposition leader Hakainde Hichilema, who lost last year's presidential elections by a slim margin, as well as his decision to declare a state of emergency that allowed for increased policing power following a series of arson attacks in Lusaka in July. Nonetheless, the sentiment among leaders in the mining industry on the ground remains largely positive that peace will endure, and the uptick in copper prices led our team to conduct a special focus on Zambia, which is previewed in the following pages. •



IMAGE: Courtesy of Botswana Diamonds

## ZAMBIA



Population:	15,510,711
Land Area:	752,618 sq km
Capital:	Lusaka
Head of Government:	President Edgar Lungu
GDP (PPP):	\$65.17 billion (2016 est.)
External Debt:	\$9.27 billion (2016 est.)

Source: CIA World Factbook

### IMPORTS

Machinery, transportation equipment, petroleum products, electricity, fertilizer, foodstuffs, clothing

Source: CIA World Factbook

### EXPORTS

Copper/cobalt, cobalt, electricity; tobacco, flowers, cotton

Source: CIA World Factbook

### BUSINESS ENVIRONMENT RANKING

Ease of Doing Business:	98
Starting a Business:	105
Dealing with Construction Permits:	78
Getting Electricity:	153
Registering Property:	145

Source: The World Bank

### OTHER FACTS

New mining activities initiated in 2016 led to an increase in total copper production by 8.4%.

Copper output is projected to increase by 16% in 2017 and by 8% in 2018.

Source: African Economic Outlook

### MAJOR EXPORT PARTNERS

Switzerland :	44.2%
China :	14.5%
Singapore :	7.8%
South Africa :	7.7%
DRC:	7.5%

Source: CIA World Factbook 2015

### KEY INDUSTRIES

Copper mining and processing, emerald mining, construction, foodstuffs, beverages, chemicals, textiles, fertilizer, horticulture

Source: CIA World Factbook



IMAGE: Nchanga Refinery in Chingola, courtesy of KCM



## A TRUSTED and RELIABLE partner in energy



Since the early 1920s, mining has been at the core of Zambia's economy and energy its lifeblood. For a country ranked among the world's top copper producers and second in Africa, mining remains the country's top foreign exchange earner and contributor to Gross Domestic Product.



Powering and turning the wheels of this economic engine is the Copperbelt Energy Corporation Plc (CEC), which has for more than 60 years supplied power to about 80percent of the country's mines, including the wettest on earth. CEC is a Zambian incorporated power transmission, generation and distribution Company with interests in closely linked businesses, including optic fibre based telecommunications, in Zambia and the Sub-Saharan African region. The privately owned power utility is listed on the Lusaka Securities Exchange and is a member of the Southern African Power pool (SAPP).



With its business philosophy rooted in the need for a dedicated power supplier to an industry with unique needs, CEC boasts of a robust and extensive power infrastructure network spanning the entire mineral rich Copperbelt Province, and extending into the resource-rich Democratic Republic of Congo (DRC) - with whose national utility, SNEL, CEC jointly owns and operates the only interconnection linking DRC to the rest of Southern Africa.



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**Email:** [info@cec.com.zm](mailto:info@cec.com.zm)

# Zambia

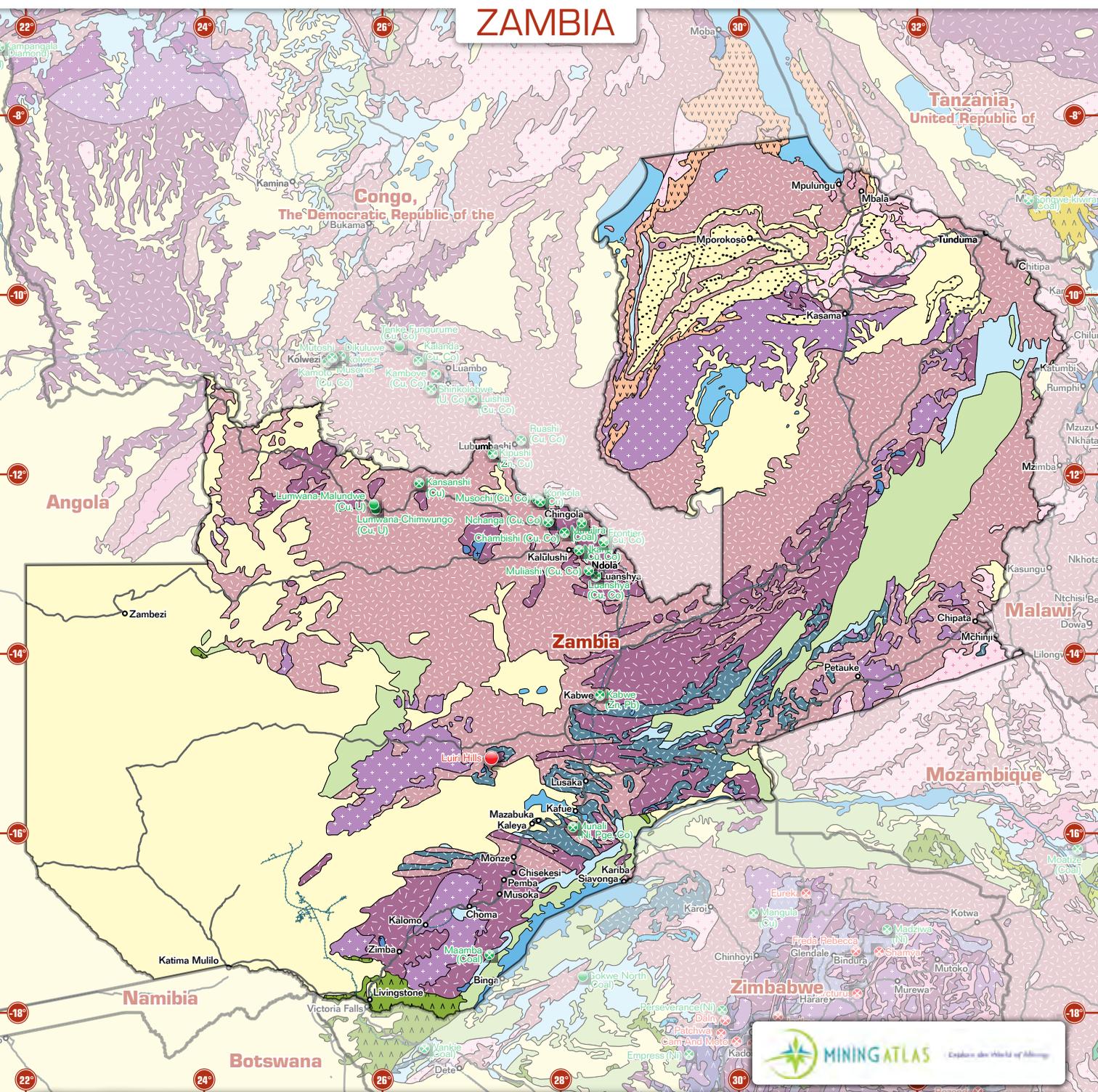
## The Copperbelt Revitalizes

Long lauded as one of the more peaceful nations in the Southern Africa region, Zambia's historic association with political stability has undoubtedly contributed significantly to its attractiveness as a destination for foreign investment. When the late 1990s ushered in the privatization of the nation's mining industry, copper production increased from 300,000 mt/y to a projected 800,000 mt/y by the end of 2017. Sustained international interest in Zambia's wealth of resources in tangent with rising copper prices facilitated the country's rise as a globally significant player in the commodity marketplace. Over the years, the nation's geological prospectivity has drawn the attention of the likes of De Beers and Anglo American, and with the names of these powerhouses once again in the air, Zambia's future appears to have taken on the luster of its famous emeralds.

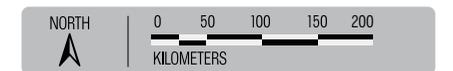
Nonetheless, the country has experienced its fair share of recent troubles. Fiscal flip-flopping has left some investor's uneasy at the staying power of the recent stability in the tax regime. "The issue of the ever-changing tax regime and mineral royalties has been the largest deterrent for our clients in the mining industry," explained Jason Kazilimi, senior partner at KPMG Zambia.

Power sector problems also plagued the mining industry from 2015 and into 2016, and Zambia has certainly felt the strain brought on by the volatility in commodity pricing in recent years. Its aging industry implies an urgent need for new discoveries amidst the worldwide deficiency in exploration funds, and the ongoing debate between the private sector and government on how best to reconcile business imperatives with national development concerns persists.

Although the nation grapples with the lingering impact of prior years' problems and the abiding issues of politics and regulations, green shoots in the global economy have nonetheless inspired a cautious optimism across the value chain. Zambia's large-scale mining houses are ramping up production once more, and exploration initiatives are proliferating as the buzz around the untapped potential of the "new Copperbelt" draws more and more players to the nation's prospective North-West Province. Updates from the energy sector suggest a surprisingly promising outlook for Zambia's capacity to overcome the havoc wreaked by electricity shortages — developments driven largely by the need to power the mining industry. Service providers, both international and local players, are investing in their capacity to



**Your feet on the ground in Africa**



GEOLOGICAL DATA: BRGM - LAT/LONG WGS84  
Mine location data: [www.mining-atlas.com](http://www.mining-atlas.com)  
Map drafted: Kwaku Owusu-Ansah  
Graphic design: [www.arcildesign.com](http://www.arcildesign.com)  
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GOLD MINES	CENOZOIC	MESOZOIC	PALEOZOIC	PROTEROZOIC	ARCHEAN
Existing	Sediment	Sediment	Sediment	Sediment	Volcanic felsic
Gold resources	Volcanic felsic	Volcanic felsic	Quartzite	Quartzite	Volcanic mafic
Closed	Volcanic mafic	Volcanic mafic	Volcanic felsic	Volcanic felsic	Plutonic felsic
Other Minerals	Plutonic felsic	Plutonic felsic	Volcanic mafic	Volcanic mafic	Plutonic mafic
Existing mines	Plutonic mafic	Plutonic mafic	Plutonic felsic	Plutonic felsic	Metamorphic
Projects		Metamorphic	Plutonic mafic	Plutonic mafic	Amphibolite
Closed mines			Metamorphic	Amphibolite	

- Geological boundary certain
- Country Borders
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- Railway
- Water area



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**SETTING THE STANDARDS OF COPPER PRODUCTION IN ZAMBIA**

Founded in 1975, Metorex is a wholly owned subsidiary of the Jinchuan Group since 2012.

Metorex operates Chibuluma Mines, a mining area located south of Chibuluma in Zambia. Mine production in Chibuluma began in 1955 and currently has an annual capacity of approximately 12,000 tonnes of copper in concentrate.

The mine currently extracts ore from an underground operation feeding an efficient well run concentrator. Highly mechanized and efficient, Chibuluma continues to be described as Zambia's model mine.

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[www.metorexgroup.com/mine/chibuluma-mines](http://www.metorexgroup.com/mine/chibuluma-mines)

serve the industry in anticipation of increased demand for their offerings. On the whole, it seems that Zambia is back on track as a regional leader in mining.

**Production & Exploration**

*Base Metals: Copper Remains King*

When copper prices dropped by 25% in 2015, Zambia's copper-oriented economy felt the impact. The age of the sector means that many established mines are relying on ore-bodies found at increasing depths, making them more costly to retrieve and therefore less economical in the face of falling prices. However, with the price breaching \$6,000/mt and showing signs of sustained recovery, production is ramping back up and projected to reach a record-breaking 800,000 mt/y by the end of 2017, exceeding the previous industry high of 790,000 mt/y in 2013.

Notwithstanding the contribution of other commodities and the gemstone sector to the overall success of the country's extractives industry, copper remains king, and approximately 80% of Zambia's copper production comes from four major players: First Quantum Minerals, Konkola Copper Mines (KCM), Mopani Copper Mines, and Barrick's Lumwana mine.

Updates on the state of these production powerhouses provides a strong indication of the industry's overall health. While FQM's

Kansanshi copper mine continues to be a powerful contributor to Zambia's overall output, the company's Trident project will prove instrumental in reaching the country's vision of surpassing their neighbor to the north, the DRC, in terms of copper production. FQM's current focus in the country is ramping up the Sentinel mine to nameplate capacity at 270,000 mt/y.

In September 2015, Mopani commenced an 18 month partial suspension of operations and reduced smelter operating capacity. Mopani's mines at Nkana and Mufulira in addition to a refinery at Mufulira, have been in operation since the 1930s facing declining reserves, and had been operating at a loss. Currently, however, Mopani, with the support of 73.1% majority shareholder Glencore, is investing \$1.1 billion into enhancing efficiency and revitalizing its production capacity, including sinking three new shafts.

KCM has announced ambitious production goals, intending to triple its output over the next three years aided by a pledge of \$1 billion in financial support from its London-based parent company Vedanta Resources. The company will also resume activities at the Nchanga underground mine operation, which was placed on care and maintenance in 2015.

Although undeniably critical, copper is not the only base metal to be found in Zambia, and developments in the nickel sector have proven particularly interesting. In addition to

the Sentinel mine, FQM's Trident project in the Kalumbila district comprises of a nickel ore body dubbed Enterprise that the company intends to bring into production when the price proves favorable. "Enterprise shares commonalities with the Sentinel process plant, and under the right conditions it will not take much for us to commission Enterprise relatively quickly," said John Gladston, government affairs manager at FQM.

Towards the south, the Munali nickel mine will end a three year hiatus to begin production under new British investors, Consolidated Nickel Mine. Placed under care and maintenance in 2011 due to poor performance, Munali's new owners intend to invest \$40 million into efforts that will produce more attractive returns and expand the mine's life an additional 10 years.

*Gemstones: Love in the Time of the Copper Downturn*

Because of its relative cushion from the volatile commodity marketplace, Zambia's gemstone sector escaped the consequences of the downturn, and has in fact been quietly attracting investment from around the world. Although the sector is often thought to be the business of small, artisanal miners — who indeed play a significant role in the industry — Zambia is also home to some of the world's largest gemstone mines. These mines have played a decisive role in enhancing the sector's sustainability by providing a consistent

supply of products and branding potential. Emeralds in particular have benefited from this cohesive production strategy, allowing the distinctive blue undertones of Zambia's stones to garner global recognition and appreciation.

Two of these mines are backed by London-based Gemfields, the world's largest colored gem producer. Kagem mine represents the world's single largest producer of emeralds, accounting for around 25% of global production. As a key player in the gemstone mining value chain, Kagem's expertise has helped to drive the sector forward by developing the local capacity for everything from processing and grading to auctioning and marketing. Operating for over 60 years, the Kariba mine in the southern part of Zambia's Kalomo district is the world's largest amethyst mine, producing as much as 800 mt/y and projecting a further increase in production for 2018. Gemcanton Emerald mine, formerly known as Grizzly Emerald mine, was bought 50% by Lev Leviev in June 2017, adding emeralds to the Israeli billionaire's previously diamond-dominated portfolio.

Although their contribution to global production is already significant, gemstone deposits in Zambia are still vastly untapped resources. The availability of capital is the crucial component needed to push forward the sector. "Zambia has much potential for precious stones if it can find the means for funding," said Iven Mulenga, managing partner at Iven Mulenga & Co, whose practice has seen business from investors coming from the Middle East and Asia that are interested primarily in

emeralds. "A number of people have obtained licenses, but they do not have the capital to take their projects forward."

*Exploration and Development: Zambia Not Immune to Tough Global Conditions*

Despite being such an established jurisdiction, Zambia's geology remains widely unmapped, making a risky exploration endeavor an even greater challenge in the face of uncertain — or indeed non-existent — data. Nonetheless, exploration for new deposits will prove critical. The challenging conditions of an aging mine do not allow for attractive returns in a time when the industry is seeking to achieve a cost profile that fits within lower commodity prices.

Chibuluma mine, known as "Zambia's model mine" stays true to its name in exemplifying this necessary strategic shift. Having been mined since 1955, the copper reserves at Chibuluma had been depleted to the point that the mine was facing end of life as soon as 2017. The problems associated with its age in combination with the unattractive copper price saw the company running at a loss of \$30 million in 2015. However, concerted efforts to enhance the mine's efficiencies and ongoing regional exploration initiatives have bolstered the mine's reserves through the extension of the ore body at Chibuluma South, in addition to defining the Chifupu deposit. "We could have put the mine under care and maintenance, but Jinchuan through Metorex, took a long term view and decided to expand its footprint in Zam-

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bia,” explained Jackson Sikamo, the country manager at Chibuluma Mines. “They made the strategic decision to keep the mine going, because continuing operations at the Chibuluma mines gave Jinchuan the opportunity to look for resources elsewhere in the country.”

In addition to its brownfield endeavors, Metorex has obtained two new exploration licenses in Zambia’s North-Western Province. Dubbed the “new Copperbelt,” there is a discernible shift in interest towards the region, which already homes Barrick’s Lumwana copper mine. However, as Panorama Security’s director Stewart J. Scott points out, there are risks to be considered as new projects start to emerge: “The socio-economic environment in the Copperbelt and North-Western Provinces generates significantly higher levels of risk which in turn creates opportunity. When a new mine comes online, people tend to flock to the site looking for employment with very low chances of success. This creates a massive security risk for the mine, and we have to find ways to engage with the community to find a platform through which they can ben-

efit from the client’s presence. Otherwise, you alienate these people and create an ‘us versus them’ structure that exposes the client to further risk.”

Generally, Zambia’s exploration potential faces impediments because exploration spend worldwide has been decreasing, suggesting that the additional risks of operating in Africa would further deter investment. However, Daniel Major, CEO of GoviEx Uranium, said: “From a project perspective, we have found that being in Africa actually helps. Because we are in a developing region, export credit agencies (ECAs) tend to be supportive, whereas they may be less likely to offer assistance in a developed country.”

The Canada-based company has three advanced stage uranium projects with significant exploration upside, including the Mutanga deposit in southern Zambia. In addition to uranium and its copper potential, gold and manganese could begin to play a greater role in the Zambian mining sector. Cobalt’s attractive price, driven by global interest in the

commodity’s role in the production of lithium-ion batteries, could also prove a productive endeavor if the lower grade of Zambian deposits does not deter advancements.

**Zambia’s Power Predicament: Problems and Solutions**

The depressed copper price was not the only external challenge haunting the Zambian mining industry. Chronic electricity shortages across the nation contributed further to already high operating costs for the mines, and a dispute between the government and mining companies over energy tariffs intensified the ongoing conversations about the private sector’s contribution to state revenue. Severely reduced water levels at the country’s Kariba Dam were largely to blame for the power issues. “At present, Zambia’s predominant generation source is hydro, about 95%, which is generally a clean source,” explained Owen Silawwe, managing director of Copperbelt Energy Corporation (CEC). “However, drastic climatic changes have in the recent past resulted in poor hydrological performance, hence, the country’s realization of the need for an energy mix as a crucial requirement to having a more resilient sector.”

The government reiterated its efforts to diversify its power generation sources to stem its reliance on hydroelectricity, focusing largely on the potential for renewable sources in addition to its coal-powered capacity. “Dropping water levels challenged us to be more innovative to ensure that we will avoid the consequences in the future,” said Hon. Christopher Yaluma, Zambia’s Minister of Mines. “We will accomplish that by exploring other energy resources, and we are very much headed towards utilizing renewable.”

The commissioning of the 150 MW power plant by Maamba Collieries Limited (MCL) will bolster Zambia’s thermal energy output in the interim, and the country’s ample coal reserves could help to generate as much as 300-700 MW. However, the environmental implications of coal mean that many DFIs will not provide financing for such initiatives, further underlying Zambia’s need for an energy mix. At the center of finding a solution to the predicament is CEC, a ZCCM-IH subsidiary

that was originally formed in 1953 with the purpose of supplying power to Zambia’s mining industry. Fast-forward to present day and the company still prioritizes its services to the mines, however, it has grown to encompass a fully integrated mandate that endeavors to expand Zambia’s capacity as a regional leader in power generation and transmission. The company currently owns much of the transmission infrastructure in the Copperbelt, which it uses to transport power on behalf of third party sources — namely the national energy company Zesco. However, CEC has a number of projects in the works to develop its own generation capabilities, which presently stand at 80 MW. The company’s 40 MW Kabompo Gorge project is located strategically in the north, whereas most power generation stations are in the south of Zambia. The company also has a 1 MW solar project in partnership with Copperbelt University that represents the country’s first grid-scale solar project and prequels plans to introduce a 50 MW project following its completion by the end of 2017. “This initial, small-scale project will aid in developing our solar technology capability as an organization and help enhance the capacity of our engineers to handle larger projects as the Company scales up its investment in solar energy development going forward,” said Silawwe.

Importing expensive power supply resulted in high tariffs for the mining industry that are not sustainable. However, Zambia has recognized the need to diversify its energy supply

and is keenly aware of its natural endowments that underpin the opportunity to be a regional leader in the energy sector. Because power infrastructure tends to be capital intensive, the potential for off-take agreements with the mining industry represents a mutually beneficial avenue to finance the development of the power sector in the southern Africa region.

**Transport and Logistics**

Zambia’s geographic position simultaneously presents both challenges and opportunities. As a landlocked nation, the lack of a seaport stunts the nation’s export potential while also driving up the price of imports. On the other hand, Zambia borders eight different countries, allowing it to serve as a regional transport hub and gateway between Central and Southern Africa. However, if Zambia is to successfully market itself as a land-linked intersection for international trade, key improvements to infrastructure must be prioritized. Several government funded projects suggest that the country is making a concerted effort to improve its road networks, including in the Copperbelt and North-Western Provinces. However, in the face of rising debt, the government’s capacity to continue with these projects may well be impacted if state revenue must be diverted.

Subsequently, several players in the mining space have undertaken key roadworks themselves. FQM spent \$3.5 million on the road

linking Solwezi to Chingola. With the increasing emphasis placed on the North-Western Province as an area with untapped mineral potential, Solwezi is set to act as the doorway into the region as a flood of service providers scramble to set up shop in the town, making this a strategic investment in the future of the region. Nonetheless, to maintain the quality of the roads has proven another perennial issue that can have a significant impact on the profitability of a project when considering the added cost of wear and tear in the transport process. In order to offset these expenses, transport companies such as the BHL Group, are becoming more innovative. “We used the Rhino as our symbol to reflect our company’s strengths. We consider ourselves to be groundbreaking through the use of new technologies in our vehicles,” said Elrick De Klerk, CFO of the company. “For example, we developed a dual trailer where you can put dry product in the middle and, back, and front you have tanks for liquids. This minimizes empty runs, maximizes payload, and decongests the roads, making our offer more efficient and cost effective.”

**Equipment and Services**

Surviving during lean times in Zambia’s highly competitive service provider sector proved a trying test for its players. However, those that pulled through are beginning to reap the benefits as new contracts come through and demand for equipment returns. “We experience a lot of organic growth through our existing



## for Leisure and Business

Featuring free WiFi, a restaurant and an outdoor pool, Sherbourne Hotel offers accommodation in Kitwe. Guests can enjoy the on-site bar. Free private parking is available on site.

Every room at this hotel is air conditioned and comes with a flat-screen TV with satellite channels. Some units include a seating area to relax in after a busy day and a jacuzzi. You will find a coffee machine in the room. All rooms have a private bathroom. Extras include bath robes and slippers.



11 Kanyanta Avenue, Kitwe 50100, Zambia

mining customers, such as Mopani opening up its new shafts. When our clients expand, we grow with them,” explained Andrew Kapula, managing director of CEC Liquid Telecom, a wholesale data company providing Zambian mines with communication and connectivity solutions.

Closely linked to this positive growth trend is the emphasis on infrastructure. “The government’s many infrastructure projects represent an opportunity for us,” explained Nawa Mataa, director at Hitachi Construction Machinery Zambia. “Because these projects are seen as long term, contractors in that space are willing to pay a premium to obtain quality machines as opposed to cheaper brands,” he added.

When looking to cut production costs, many mines tried to save by utilizing inexpensive products, often sourced from mass-manufacturing countries like China or India. “The Chinese pricing is incredibly competitive, causing us to have to reduce our rates,” said Seamus McKenna, director at Paul McKenna & Sons. “However, in the long run, we do not believe that the Chinese machines will last.” Indeed, the lower quality of the products in the market has begun to show, and proprietors of more expensive yet higher quality equipment are seeing demand return. “The mining sector has become more particular about who they are dealing with,” said Raj Karamchand, director at Hytec Zambia. “Price is still a factor, but in most cases, they are more concerned with getting something that is going to last longer and will reduce downtime.”

Service providers employed a range of strategies to pull through challenging times. Maintaining solid relationships with clients through the provision of after-sales and maintenance services was key for many companies. “We have a high number of machines on the market, so we rely heavily on our parts and after-sales to generate strong revenue,” said Mike Quinn, general manager of Bell Equipment in Zambia and the DRC. Particularly when faced with the consequences of poor quality equipment, mining companies are investing in the superior ser-

vices that often accompany well-established brands.

Diversification into other sectors, particularly the highly government-promoted agricultural industry, provided many companies with a means of staying afloat. Alternatively, some suppliers chose to diversify within the sector, joining the throngs of Zambia’s small-scale miners to open their own mining operations.

### Local Capacity

The long term sustainability of Zambia’s economy will heavily depend on the success of its locally operated SMEs. As a long-established mining destination, the Zambian labor force is well equipped to take advantage of the opportunities surrounding the extractives industry. “Investors should not be concerned about the availability of qualified labor to run a mine,” said Jason Kazilimi, senior partner at KPMG Zambia. “Certain specialized skills may require expertise from abroad, but for almost any business you should be able use people that are available locally.”

When skills are not available, a host of international players have been keen to take advantage of the lucrative gaps. “The South African mining game has been going for a long time, but in Zambian there is still room for development, which is where companies like ours can play a role,” elaborates Louis Lindenberg, whose South African-based company Lindenberg Hydraulics has initiated operations in Kitwe, offering its expertise in mechanical engineering to the Zambian gemstone sector.

While there are still voids in the local skills market, the general consensus is that the Zambian population has the capacity to service the industry, and where it does not, the emphasis should be on providing training. “Foreign companies should not solely rely on corporate social responsibility (CSR) initiatives as a means of giving back to the host country because these projects are not as sustainable,” said Mwaba Coster, general manager of Hearmes Mining and Trading.

“Often companies come in and build something that does not add true value to the community if it is not accompanied with training and support.”

Locally owned and operated in Zambia for 19 years, Hearmes is one of several companies in Zambian mining hubs like Kitwe and Ndola that provide services ranging from engineering consultancy to supplying labor and equipment.

### The Way Forward: Value Addition

Local value adding initiatives in Zambia are more advanced than many of its African counterparts. No raw copper ore is currently exported from the country, but there are still several levels of beneficiation that could be achieved to allow the country to take even greater advantage of its raw potential. Berry Mwangi, director of locally run C&B Engineering elaborates: “It is important that we are looking at local content because Zambia is losing out on a lot of its mineral potential as a country. Depending on the location of the mine, much of the copper waste has a lot of gold content, for example. The Copperbelt also has a lot of other minerals such as cobalt, titanium, and selenium that are exportable within their own right if processed. Some operators deliberately leave cobalt in the copper mix to extract outside the country.”

Further processing could also be achieved to enhance the purity of the copper concentrate being exported. These are well-observed challenges in the industry, and as Hon. Yaluma points out: “The growth of this industry will rely on value addition being achieved here in Zambia. We are losing out on two levels: a means of sustaining our own people and lost revenue for the government.”

Forging strong partnerships built on trust and integrity between local talent and the expertise offered by outside players will undoubtedly prove the most efficient and lucrative means of achieving a sector that benefits both Zambians and international investors. •



**West Africa  
Country Corporate  
Tax Rates**  
for 2017

Burkina Faso:	27.50
Ghana:	25.00 - 35.00
Ivory Coast:	25.00
Guinea:	35.00
Senegal:	30.00
Cabo Verde:	25.50
Benin:	30.00
Gambia:	31.00
Mauritania:	25.00
Nigeria:	30.00
Sierra Leone:	30.00

# West Africa

West Africa has been at the heart of the African transformation. Over the past decade, this region has achieved remarkable economic growth, outperforming other regions in the continent and emerging as a darling for investors worldwide. Although growth has gradually slowed, West Africa houses some of the continent's stellar economic performers, namely Cote d'Ivoire, Senegal and Burkina Faso, while being home to Africa's largest economy and most populous country, Nigeria. Sound macroeconomic policies, ameliorating political conditions, and major infrastructure developments have contributed to noteworthy investments in the mining sector of West Africa. From Ghana's world-renowned gold deposits to Burkina Faso's unexplored wealth, West Africa will certainly host some of the most attractive projects for the industry across the continent.

Burkina Faso is experiencing a boom in its mining industry. Landlocked but endowed with immense mineral wealth, this country has quietly emerged as one of the preferred destinations for mining investors. Although falling behind gold-producing giants like South Africa, Ghana and Mali, Burkina Faso has the highest number of new gold projects in the continent, and the export of gold accounts for nearly 80% of its income. In early 2017, Endeavour Mining confirmed it had added over 260,000 oz. to the proved resource at its Karma gold mine, thereby extending its mine life to more than 10 years. Moreover, the company is expected to commence production at its Houndé project in the last quarter of 2017, eyeing a 900,000 oz. operation and employing 470 people, of which 90% will be Burkinabe nationals. These developments are welcome in a largely undeveloped and poor country. Meanwhile, major gold producer IAMGOLD has announced the installation of a 15 megawatt solar power plant at its Essakane mine, which will become one of the largest hybrid diesel solar photovoltaic projects in the world. The upcoming years look very promising for Burkina Faso, with companies like Centamin, Orezone, Roxgold and Semafo heavily invested in the country and eyeing near-term development or production.

With an estimated 822 tonnes (mt) of gold reserves, Mali remains a hotspot for gold mining companies worldwide. Largely due to developments from Randgold's Loulo-Gounkoto complex and the Morila mine, the country has managed to increase its reserves significantly in the past few years. While current projections put 2017's output at 45 mt/y this year behind the 46.9 mt produced in 2016, new mines coming online by 2018 could help the country to beat current forecasts. Although the security situation in the north

of the country has overshadowed developments in the industry, Mali's mining sector is expecting a very eventful year. B2Gold and Hummingbird Resources expect to commence production at their respective Fekola and Yanfolila projects in the fourth quarter of 2017, and other large-scale mining companies operating in Mali include the likes of AngloGold Ashanti, Randgold, Resolute, Endeavour, and IAMGOLD.

Well-established mining jurisdictions such as Ghana have upgraded efforts to reap the benefits of increased investment flows to the region. The new administration of President Nana Akufo-Addo has reiterated its commitment to boost the sector following a largely stagnant environment over the past four years by tackling illegal mining and streamlining permitting processes. Speaking about investment opportunities in West Africa, Michael White, president and CEO at IBK Capital, a Toronto-based firm, said: "IBK has always enjoyed Ghana as a mining jurisdiction since the country is deeply rooted in the rule of law and has been fairly stable for decades. Additionally, substantial infrastructure has been built up in Ghana over the past 20 years, evidencing the country's rapid evolution.

It is great to see that the government is creating access for these projects and investing in the mining sector in general." While Ghana remains a strong favorite of investors, Senegal, Guinea, and Cote d'Ivoire are the newest players to create considerable hype in an already-buzzing West Africa. White added: "Guinea is also a country in which we have been comfortable investing, as it has a long history of uninterrupted bauxite supply through an established rail line and port system."

In Senegal, several explorers and developers, such as Bassari Resources, are gearing up to begin production. The ASX-listed gold developer is slated to begin awarding contracts for its Makabiungui gold project with the objective of delivering its first high grade ore to the processors by mid-2018. Senegal expects to produce between 205,000 and 225,000 oz. of gold in 2017, and phosphate production for the year could be as high as 2,000,000 mt. Notwithstanding these exciting developments across the region, Cote d'Ivoire is one of Africa's fastest growing economies with a growth rate of roughly 8% in 2016, and thus remains a focal point of international interest amongst the mining community.

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**COTE D'IVOIRE**



**Population:** 23,740,424

**Land Area:** 318,003 sq km

**Capital:** Yamoussoukro

**Head of Government:** President Alassane Ouattara

**GDP (PPP):** \$87.12 billion (2016 est.)

**External Debt:** \$12.84 billion (2016 est.)

Source: CIA World Factbook

**BUSINESS ENVIRONMENT RANKING**

**Ease of Doing Business:** 142

**Starting a Business:** 50

**Dealing with Construction Permits:** 182

**Getting Electricity:** 132

**Registering Property:** 113

Source: The World Bank

**MAJOR EXPORT PARTNERS**

**US :** 8.6%

**Netherlands :** 6.2%

**France :** 5.7%

**Germany :** 5.6%

**Nigeria :** 5.6%

**Burkina Faso :** 5.5%

**Belgium :** 5.3%

**India :** 4.7%

Source: CIA World Factbook 2015

**OTHER FACTS**

**Gold production** has doubled in the last six years from 12 t in 2011 to 25 t in 2016. This is anticipated to increase to 26 t in 2017

**GDP growth rate** between 8 and 9% average over last five years (2017 projection: 8.1%)

Source: Mining Review

**IMPORTS**

Fuel, capital equipment, foodstuffs

Source: CIA World Factbook

**EXPORTS**

Cocoa, coffee, timber, petroleum, cotton, bananas, pineapples, palm oil, fish

Source: CIA World Factbook

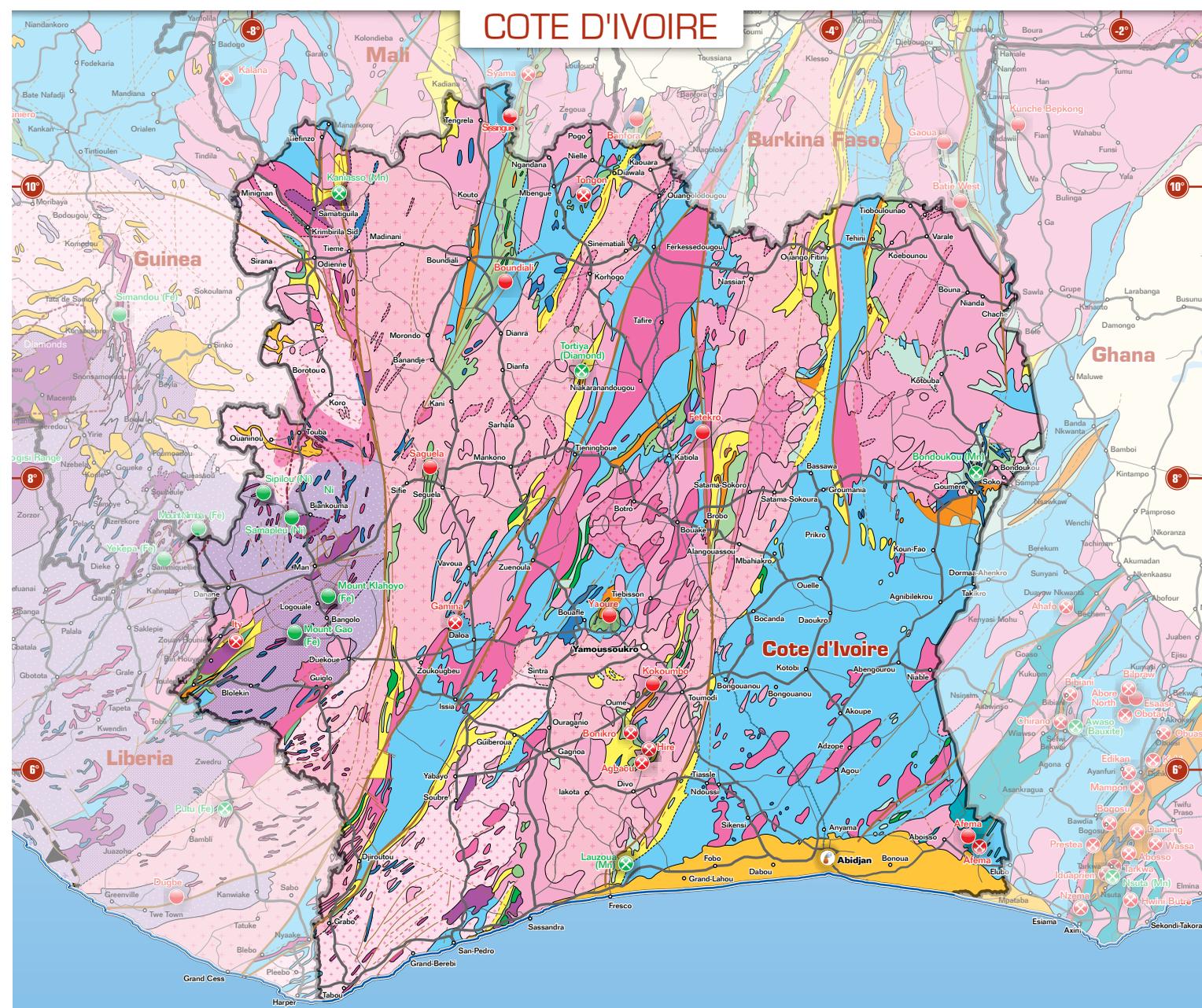
**KEY INDUSTRIES**

Foodstuffs, beverages; wood products, oil refining, gold mining, truck and bus assembly, textiles, fertilizer, building materials, electricity

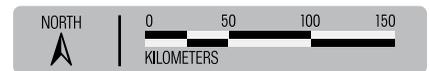
Source: CIA World Factbook



IMAGE: Courtesy of Rangold Resources



**Your feet on the ground in Africa**



- Geological boundary certain
- Geological boundary inferred
- Fault certain
- Fault inferred
- Thrusts
- GOLD MINES**
- Existing
- Closed
- Gold resources/projects
- OTHER MINERALS**
- Existing mines
- Closed mines
- Projects
- Mineral fields
- Country Borders
- Roads
- Sems Offices
- Seaside
- Minor roads
- Railway

- POST-EBURNEAN ANOROGENIC DOMAINS**
- Basic-ultrabasic complexes (Freetown, Guinea)
  - Cretaceous to Recent
  - Upper Proterozoic to Paleozoic
- EBURNEAN OROGENIC DOMAIN**
- LOWER PROTEROZOIC TERRANES (2.4 - 1.6 Ga.)**
- Plutonic rocks**
- Basic-ultrabasic complexes
  - Leucogranite
  - Undifferentiated granitoids
- Volcanic and fluviodeltaic formations**
- Lithostructural assemblages (D2 and D3 deformation phases)**
- Fluviodeltaic: sandstone, conglomerate, argillite (Tarkwaian)
  - Plutonic-volcanic assemblage: minor volcanic rocks
  - Undifferentiated volcanics, volcanosedimentary rocks
  - Komatiitic to tholeiitic basalts
  - Rhyodacitic to rhyolitic volcanic rocks, chert (b), graphitic horizons
  - Andesitic volcanic rocks, chert (b), graphitic horizons
  - Basic volcanic rocks, chert (b), Mn levels (c)
- Flysch-type formations with minor volcanic rocks - Lithostructural assemblage (D1 to D3 deformation phases)**
- Carbonates felsic volcanic rocks
  - Felsic volcanoclastic rocks, dykes, chert (b), manganese levels (c)
  - Flysch-type: sandstone to argillite (graphitic, conglomeratic levels)
- Horizon Markers (B2, B1)**
- Tourmaline-bearing sandstone and conglomerate
  - Chert and quartzite levels
  - Manganese-rich levels: quartzite, gonite, phyllite
- ARCHEAN AND/OR PROTEROZOIC GRANITIC GNEISS COMPLEXES DEFORMED BY THE EBURNEAN OROGENESIS**
- Granitic, migmatitic and undifferentiated gneiss
  - Granitic, migmatitic and undifferentiated gneiss
  - Granite, gneiss, and migmatitic gneiss complexes
- PRE-EBURNEAN OROGENIC DOMAIN**
- ARCHEAN - LEONIAN (3.5 - 2.9 GA.) / LIBERIAN (2.9 - 2.5 GA.)**
- Plutonic rocks**
- Undifferentiated plutonic rocks (Leonian to Late-Liberian)
- Greenstone belts and ironstone formations**
- Ironstone formation (meta-sedimentary, meta-basic rocks associated)
  - Basic and ultrabasic formations
- Gneissic complexes**
- Migmatitic and undifferentiated gneisses
  - Granulitic gneiss "basement"

GEOLOGICAL DATA FROM BREEM - LATI/LONG WGS84  
Map drafted by: Kweku Owusu-Ansah  
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# Cote d'Ivoire

## Abidjan Challenges Accra for Regional Mining Hub

This country of 23 million inhabitants has emerged as one of the continent's brightest economic spots in Africa, as the 2014 move of the African Development Bank's headquarters to Abidjan attests. After decades of political turmoil and civil unrest, investors in the mining sector have turned their eyes to Cote d'Ivoire as one of the most attractive jurisdictions. A favorable mining code introduced in 2014 aims to double gold production and has resulted in a major escalation of Cote d'Ivoire on the Fraser Institute's Investment Attractiveness Index for mining, ranking 17th in 2016, the best-ranked African country and placed above global mining powerhouses Peru and Chile. Moreover, growth on annual mining value is expected to average 15% per annum until 2021.

Tensions between the government and sec-

tions of the army over pay bonuses disputes attracted the spotlight early in 2017. However, President Ouattara's government has successfully avoided an escalation in tensions, with little repercussions for the business community. In fact, in late May, London-based Endeavour Mining agreed to pay \$52 million in order to raise its stake from 55% to 80% in the Ity mine to state-owned mining firm SODEMI. In general, investors communicate a shared belief that the political stability in the country will remain a fundamental imperative of the acting administration, including efforts to create a favorable climate for foreign investors. "The current objective of the government is to rebuild Cote d'Ivoire as quickly as it can," explained Hervé Boyer, managing director at Stanbic Bank Cote d'Ivoire. "The country went through difficult

*"The challenges of operating in Cote d'Ivoire create the opportunities. Because of the barriers to entry, there is less competition, and we offer very specific regional expertise that we believe will interest international groups who want to enter the market."*



- Stanislas de Stabenrath, Managing Director, X&M Suppliers

times, but we are now beginning to see huge improvements. With the government's efforts to rebuild the country, they are not going to inhibit international investment."

Against the backdrop of this favorable environment, exploration and development stage projects keep gaining traction. Currently, there are only four gold-producing mines in Cote d'Ivoire, operated by Randgold, Newcrest and La Mancha. However, the Ivorian government's ambitious plans include bringing the total to 17 by 2020 and keep escalating its position among Africa's gold producers. Perseus Mining will invest AUD\$40 million toward the development of its Sissingué project in northern Cote d'Ivoire, envisaging production by the second quarter of 2018, while simultaneously developing its Youré project. Speaking about the opportunities of operating in West Africa and Cote d'Ivoire at this particular time, Jeff Quartermaine, managing director and CEO at Perseus, said: "When we began work on the Sissingué project it was ideal timing because the lack of activity in the global sector allowed us to engage contractors at relatively

low rates in comparison to those that might apply in a bull market for gold globally."

Australian company Predictive Discovery has outlined a strategy to expand its land holdings in Cote d'Ivoire to over 6,000 square kilometers, with six new exploration permit applications this year. Predictive Discovery also entered a joint venture agreement with Toro Gold in 2015 for a portfolio of four exploration permits covering over 1,500 square kilometers of prospective gold ground. The partners announced in late 2016 the discovery of a series of gold deposits along 17 kilometers at the Ferkessedougou North permit. "We see ourselves as a group that identifies strong target areas that can then become valuable projects by demonstrating solid exploration results," said Paul Roberts, the CEO and managing director of Predictive Discovery. "We believe that bringing in a partner to advance development is a more logical thing for us to do because we are explorers, not miners. From a management point of view, those two types of activities are quite different."

The exploration potential aside, the Cote d'Ivoire hosts an array of opportunities for companies willing to see challenges as opportunities. "One of our business models is to look for companies wanting to enter the West African market and build partnerships. Since entering the market can be very costly and difficult for foreign companies, we can offer a good base for them to come in with consignment stock or as partner and then develop a strategy for the region together. Our objective is to create a cluster of partners to tackle the West African region together."

The promising developments in exploration and production have caught the attention of the entire mining value chain, and a flood of service providers are gearing up to meet the expected shifts in demand for their services as the industry matures. Labo Bio Connex Analytique (LBCA), a local laboratory and testing services, has seen an opportu-

*"When we began work on the Sissingué project, it was ideal timing because the lack of activity in the sector allowed us to engage contractors at relatively low rates in comparison to those that might apply in a bull market for gold."*



- Jeff Quartermaine, Managing Director and CEO, Perseus Mining,

nity in the lack of local metallurgical players. Over the next year, the company is partnering with a lab in South Africa to develop its capacity to meet growing demand from the mining sector by setting up a dedicated minerals lab in the capital. "Our headquarters is in Abidjan, which is a hub for activity and the business will grow according to the opportunities we secure here," said LBCA's managing director, Roger Bele-Binda. "From there, we will set up some satellite labs depending on our projects."

The Cote d'Ivoire is one of the top designations for mining investment in Africa, and appears on track to remain so for years to come. Sustained political stability and improvements to the country's infrastructure will be key developments in the years to come, but the outlook for the country looks strong if the buzz in the nation's economic capital, Abidjan, is any testament. "Many large foreign companies coming from France, the U.S. and Canada have put their headquarters for the West Africa region in Abidjan," confirms Eric N'guessan, managing partner of EY Cote d'Ivoire. "These companies will not be willing to lose their investment because of political quarrels. Their confidence in Abidjan is a positive sign."

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IMAGE: Courtesy of Perseus Mining

# East Africa



## East Africa Country Corporate Tax Rates for 2017

 <b>Kenya:</b>	30.00 for a subsidiary, 37,50 for a branch
 <b>Tanzania:</b>	30.00
 <b>Ethiopia:</b>	30.00
 <b>Uganda:</b>	25.00 - 45.00 apply to mining income

Source: KPMG and PWC

East Africa has not been immune to the rising tide of protectionism around the globe, and the implementation of restrictive trade policies in Tanzania has created an uncertain investment environment there. Further jurisdictional uncertainties have impacted investor security in other East African nations as well. At the same time, rebounding prices have played a role in generating interest in gold projects around the globe, not excluding this prospective and underexploited region. In general, the value of the resources sector as a driver for regional socioeconomic development is well understood by East African Community (EAC) nations. As commodity prices continue to rise, initiatives to promote the vast mineral potential of the region abound and key projects to support improved infrastructure and labor capacity are underway.

Kenya's presidential election, held in August, was preceded by a large degree of apprehension that impacted the country's projected GDP levels as investors recalled the resulting violence from previous years' votes. The incumbent President Uhuru Kenyatta returned to office with just over 54% of the vote in what has been called by international and local observers Kenya's most transparent and fair election in its history. However, the opposition candidate Raila Odinga met the results with claims that the electronic voting system was hampered by hackers, resulting in calls for strikes and sparks of deadly violence around the nation. There are early signs of a return to normalcy, but the actions of President-elect Kenyatta over the coming weeks will largely determine the transition's impact on continued stability in the country. Kenya will host a mining forum at the end of 2017 to highlight the \$62.4 billion in estimated available investment opportunities in its mining sector, by which time the country's medium-term outlook should be more clear. Highlights of the forum will demonstrate the nation's continued investment potential in a bullish global gold market. These include Acacia's continued exploration activities on its West Kenya gold project following the announcement of a high-grade resource that is likely to surpass 1.3 million ounces of gold and Goldplat's Kilimapesa mine, the country's largest gold operation, which recently commissioned a new crushing plant

In Ethiopia, 2016 saw a wave of ethnic nationalism give way to anti-government protests held by the Amhara people, one of the two largest ethnic groups in the region. Although the underlying tension between the Amhara and government persists, the country has since returned to a relative state of stability and growth projections place Ethiopia as one of the fastest growing economies globally. The nation is committed to diversifying its economic strategy, which has translated to positive outcomes for

miners operating in the region; East Africa Metals saw the mine permit for its Terakimti oxide gold project approved in May 2017 and KEFI Minerals has secured \$135 million to develop its Tulu Kapi project for which it has already selected project contractors: Ausdrill for mining and Lycopodium for processing.

The Ministry of Mines, Petroleum and Natural Gas (MoMPNG) of Ethiopia is leading an invigorated campaign to attract foreign investment into the nation's relatively untapped resource sector in an effort to make mining a greater contributor to the nation's GDP. Currently, mining accounts for only 1.5%, but the government hopes to augment that number to 10% as soon as 2025. Hon. Motuma Mekassa, the Minister for Mines, Petroleum, and Natural Gas, said: "We have an agency, the Geological Survey of Ethiopia (GSE), which is responsible for geological data collection, storing and dissemination. Under our geoscience data collection and mapping mandate we have covered 94% of the country by 1:125,000 scale. In the area of airborne geophysics mapping we have covered about 30% of the country. So there is certainly a need for improvement, but now we are working on building the capacity of GSE to enhance the expertise of our geologists and geophysicists to speed up the acquisition of quality data and extend the scope of this data."

Service providers like Rock Plant predict that swelling confidence will result in a surge in demand and are gearing up their capacity accordingly. "Right now, many companies are running machines down to the ground because they cannot afford to buy new equipment," said the company's director, Pritpal Roopra. "As soon as the situation stabilizes, these companies will be looking at buying more equipment, which is great news for Rock Plant," he added.

The global return of confidence in the mining sector and rising commodity prices will inevitably translate to greater opportunity in the well-endowed East Africa region, although large-scale infrastructure projects will be pivotal in determining the longer term potential of the region. Governments are positioning their countries to take advantage of their nations' rich natural resources by making necessary investments in both vital transportation links and the available skillset of the population. The crucial dynamic to be determined going forward will be finding the balance between the needs of these rapidly developing nations and investor interests. As such, the current situation in Tanzania presents a critical case study and an import focus for any investor interested in not just the East Africa region, but opportunities across the continent.



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**TANZANIA**



**Population:** 52,482,726  
**Land Area:** 885,800 sq km  
**Capital:** Dodoma  
**Head of Government:** President John Magufuli  
**GDP (PPP):** \$150.6 billion (2016 est.)  
**External Debt:** \$15.89 billion (2016 est.)

Source: CIA World Factbook

**BUSINESS ENVIRONMENT RANKING**

**Ease of Doing Business:** 132  
**Starting a Business:** 135  
**Dealing with Construction Permits:** 136  
**Getting Electricity:** 87  
**Registering Property:** 132

Source: The World Bank

**OTHER FACTS**

**Corruption Perception**  
 Country Rank: 116  
 Score: 32

Source: Transparency International

**Growth in real GDP**  
 is estimated at 7.2% in 2016  
 with the same rate projected  
 for 2017

Source: African Economic Outlook

**MAJOR EXPORT PARTNERS**

**India :** 21.8%  
**China :** 8.2%  
**Japan :** 5.1%  
**Kenya :** 4.6%  
**Belgium :** 4.3%

Source: CIA World Factbook 2015

**KEY INDUSTRIES**

Agricultural processing (sugar, beer, cigarettes, sisal twine); mining (diamonds, gold, and iron), salt, soda ash; cement, oil refining, shoes, apparel, wood products, fertilizer.

Source: CIA World Factbook

**IMPORTS**

Consumer goods, machinery and transportation equipment, industrial raw materials, crude oil

Source: CIA World Factbook

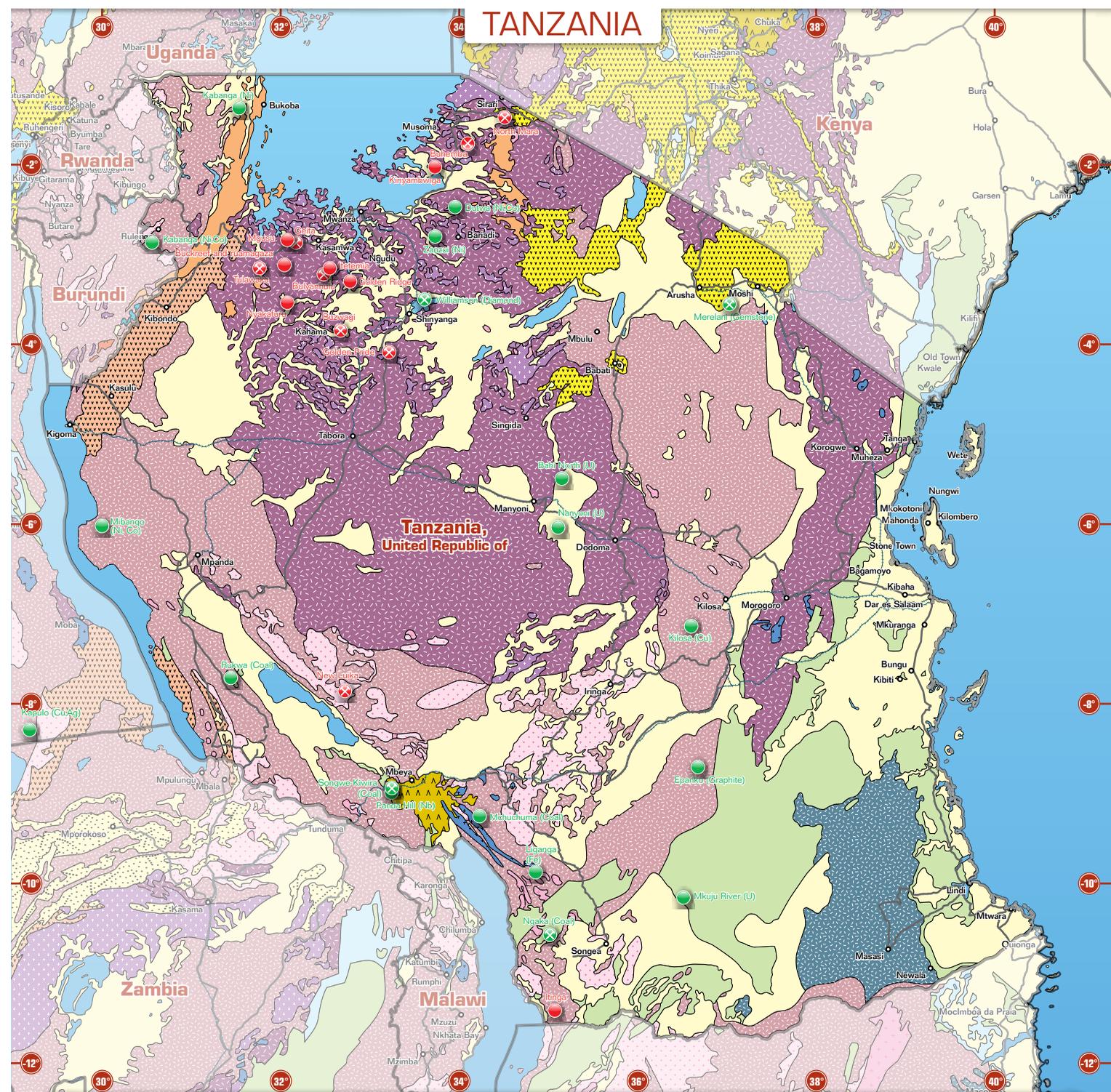
**EXPORTS**

Gold, coffee, cashew nuts, manufactures, cotton

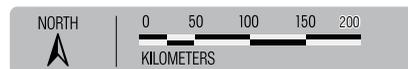
Source: CIA World Factbook



IMAGE: Courtesy of Terra Mining



*Your feet on the ground in Africa*



GEOLOGICAL DATA: BRGM - LAT/LONG WGS84  
 Mine location data: www.mining-atlas.com  
 Map drafted: Kwaku Owusu-Ansah  
 Graphic design: www.arcildesign.com  
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 2017 - 4th Edition  
 www.sems-exploration.com

**GOLD MINES**  
 Existing (Red circle with X)  
 Gold resources (Red circle)  
 Closed (Red circle with slash)  
**OTHER MINERALS**  
 Existing mines (Green circle with X)  
 Projects (Green circle)  
 Closed mines (Green circle with slash)

**CENOZOIC**  
 Sediment (Yellow)  
 Volcanic felsic (Yellow with dots)  
 Volcanic mafic (Yellow with triangles)  
 Plutonic felsic (Yellow with squares)  
 Plutonic mafic (Yellow with diamonds)

**MESOZOIC**  
 Sediment (Light green)  
 Volcanic felsic (Light green with dots)  
 Volcanic mafic (Light green with triangles)  
 Plutonic felsic (Light green with squares)  
 Plutonic mafic (Light green with diamonds)  
 Metamorphic (Light green with stars)

**PALEOZOIC**  
 Sediment (Light blue)  
 Quartzite (Light blue with dots)  
 Volcanic felsic (Light blue with triangles)  
 Volcanic mafic (Light blue with squares)  
 Plutonic felsic (Light blue with diamonds)  
 Plutonic mafic (Light blue with stars)  
 Metamorphic (Light blue with circles)

**PROTEROZOIC**  
 Sediment (Orange)  
 Quartzite (Orange with dots)  
 Volcanic felsic (Orange with triangles)  
 Volcanic mafic (Orange with squares)  
 Plutonic felsic (Orange with diamonds)  
 Plutonic mafic (Orange with stars)  
 Metamorphic (Orange with circles)  
 Amphibolite (Orange with crosses)

**ARCHEAN**  
 Volcanic felsic (Purple)  
 Volcanic mafic (Purple with dots)  
 Plutonic felsic (Purple with triangles)  
 Plutonic mafic (Purple with squares)  
 Metamorphic (Purple with diamonds)  
 Amphibolite (Purple with stars)

Geological boundary certain (Dashed line)  
 Country Borders (Thick black line)  
 Roads (Thin black line)  
 Railway (Black line with cross-ticks)  
 Water area (Blue)





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## Tanzania

### A Significant Verdict Looms

Although undoubtedly a controversial country to highlight as a destination for mining investment in the current context, there are several reasons that Tanzania remains a critical focus despite the ongoing dispute between the government and London-listed Acacia. Firstly, the political dispute does not detract from the number of exciting projects or general prospectivity of the well-established mining destination. Secondly, the case in Tanzania represents a magnified example of the same debate occurring in several African countries — even if other rumblings are less apparent to the outside observer. “It has been a contentious time between governments and the mining companies, and also the NGOs that lobby on behalf of tax collection for African countries,” elaborated Douglas Ironside, managing partner of BDO Zambia.

This tendency towards resource nationalism is not a new topic, but this particular scenario has brought many of the issues to a very public head. How the situation in Tanzania ultimately resolves will likely represent a watershed in the African mining industry that will influence the direction of the relationship between international mining companies and governments across the continent for years to come. As such, any foreign investor that wants to understand the mineral potential of African nations and the future of projects in the continent should look closely at Tanzania to gain a better understanding of the complexities in operating in developing regions.

The investment community was left reeling when, in March 2017, the country enacted a surprise ban on the export of unprocessed gold and copper concentrates. The ban has been largely directed at penalizing large producers, namely Acacia, whose Bulyanhulu and Buzwagi mines are the nation’s largest gold producing operations. The exact motive for this move by the government has been debated, but is widely thought to encourage domestic smelting initiatives and to cut down on alleged corrupt practices. Tanzania President John Magufuli, who has gained the nickname The Bulldozer for his reputation in pushing through projects, has initiated a crackdown on government corruption that led to the firing of the nation’s mining minister and chief of the state-run mineral audit agency, Sospeter Muhongo. Following the results of an investigation into the value of minerals within concentrates in containers at the country’s Dar es Salaam port, the probe alleges the minister colluded with mining companies to evade taxation.

Acacia, which is majority owned by Barrick Gold, is leading an ongoing campaign to resolve its row with the government and has fought back against this accusation. In early July, the company served notices of arbitration that allow Acacia to solicit intervention at the London Court of International Arbitration after Tanzania passed three new laws that would allow the country to dissolve existing contracts held by producers and block such attempts at international arbitration.

Despite the fallout from the export ban, many foreign companies operating in Tanzania have persisted in their projects, and the junior sector maintains that the challenges of operating across the East Africa region remain largely matters of logistics and global market trends rather than regulatory inconsistencies. John Stockley, technical director of gold exploration at Tanga Resources, explained how the company’s operations have been impeded by the lack of reliable infrastructure in Tanzania. “Tanga Resources intends to commence mining soon, but we are faced with significant port delays and charges at Dar es Salaam,” he said. “With these charges we are forced to use overland routes outside of Durban, through Zimbabwe and into Tanzania.”

Trevor Matthews, CEO of Volt Resources, whose Namangale project is the largest graphite resource in Tanzania, said that the most significant challenge facing the company is securing offtake agreements in a rapidly saturating graphite market. “A change in a governance position or legislation that imposes bans, increases taxes, or changes ownership structures can be significant in terms of holding up investment,” he said. “However, we do not believe that our project is being held up any more than our other graphite projects around the world.”

Although many smaller players are not directly impacted, uncertainty about the direction of future regulations has caused a halt in large foreign investment. Camp-



- John Stockley,  
Technical  
Director,  
Tanga  
Resources

*“Many other major companies have told us that we have found a whole new Archaean Greenstone Belt. Most of our challenges now are in the political realm. To address those issues, we have added an experienced political, diplomatic and public service figures, Dr. Ben Moses, to our team.”*

bell Baird, managing director of Indiana Resources, related that despite the fact that the company’s exploration activities are in nickel: “News of the ban has generated a dramatic ripple effect that all of us have felt in terms of reducing interest in investment and making current investors skittish.”

As the legal battles continue to play out, Tanzania’s future as a mining destination remains in the balance, and its fate will likely set an important precedent. •



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