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THE OFFICIAL MINING IN AFRICA COUNTRY INVESTMENT GUIDE

2014

Dear Readers,

Welcome to the first Mining Indaba™ Official Mining in Africa Country Investment Guide, produced for the 20th Annual Investing in African Mining Indaba™ by Global Business Reports in partnership with Mining Indaba, LLC. This publication represents six months of extensive on-the-ground research to bring you what we consider the twenty most exciting mining investment destinations on the continent. More than 250 government figureheads, industry associations, mining companies, junior explorers and service providers have been interviewed in order to provide the attendees of the 2014 Mining Indaba and our global universe of followers a comprehensive understanding of the current trends in African mining.

The selection of the top twenty most appealing African mining jurisdictions may be subject to debate: and we hope it will! Whilst you will notice some highly favorable candidates are not included this year, you will be sure to take notice of some emerging and hidden potentials that we showcase in this feature. We have provided insight to the evaluation and selection methodology (page 5) as well as the regional overviews (Central Africa on page 9, East Africa on page 17, Southern Africa on page 50 and West Africa on page 100).

In addition to the country profiles, you will find four feature articles providing more regional perspectives on common challenges. "Africa as a Country: Realities and Perceptions in Mining and the Wider Economy" (page 6) attempts to separate fact from fiction in common stereotypes of the continent. "Mines to Market: Export Infrastructure for East Africa's Landlocked Nations" (page 34) examines the issue of regional transportation on the continent's eastern seaboard. "Adding Value: Efforts to Increase Beneficiation in Southern Africa" (page 77) casts a critical eye on government attempts to encourage downstream mineral processing. And "The Balancing Act: Benefits Versus Attractiveness in West African Mining Regulations" explores the proposed regulatory changes affecting the mining industry in West Africa.

We would like to thank all the companies, associations, governments and individuals who contributed their valuable time and insights in an effort to assist with our research efforts. A special mention is necessary for all those who supplied editorial articles, photographs and quantitative data, and to SEMS Exploration, who provided the geological maps that accompany each country's profile.

We invite you to read and explore this publication as there is valuable content at every turn of the page. Your valuable feedback is always appreciated and you may submit your comments to the publishing team noted in the credits section (page 158).

Enjoy the 2014 Investing in African Mining Indaba!

Regards,

Jonathan Moore
SVP and Managing Director,
Mining Indaba LLC

Agostina Da Cunha
Managing Director,
Global Business Reports

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This research has been conducted by Jolanta Ksiezniak, Amelia Salutz, Anita Kruger, Ramzy Bamieh, Pavlina Pavlova, Razvan Isac, Sharon Saylor and Barnaby Fletcher.
Regional Management by Sharon Saylor
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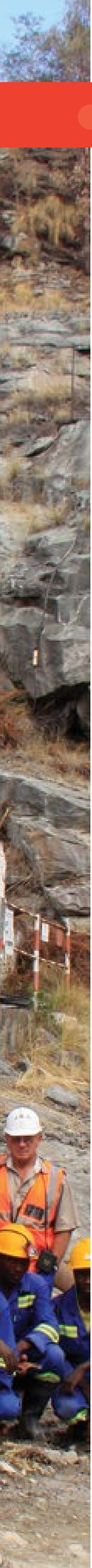
A Global Business Reports Publication
For more information, contact info@gbreports.com, follow us on Twitter @GBReports or check out our blog at gbroundup.com.



While this publication aims to provide an overview of what we consider the 20 most exciting mineral exploration and mining jurisdictions in Africa, it is not intended as a formal ranking. We are fully aware that our choices will raise questions and that many will disagree with our final selection: we hope that, if nothing else, this publication will contribute to a useful debate.

No single methodology can provide a clear picture of a jurisdiction's attractiveness in comparison to its regional peers. Adding to the difficulty of such comparisons in Africa is a dearth of reliable data: in many countries official economic indicators vary considerably from outside estimates, geological surveys are often incomplete, and regulations are continually evolving and subject to inconsistent application. We have therefore relied to a large extent on qualitative data gathered from our own on-the-ground research as much as on quantitative data. We will be the first to admit that the presence of country delegations at Mining Indaba 2014 and the ease of access we ourselves had to ministers influenced our choices: the willingness of a government to explain their mineral policies, whether welcomed or controversial, is an important indication of their wider attitude towards the industry.

The reasons behind our inclusion of each country are provided in the regional overviews at the start of each section. The only region of Africa that does not have a single representative among our top 20 is North Africa. This is at least partly explained by the focus on oil and gas that characterises much of supra-Saharan Africa: a focus that has sometimes been to the detriment of other mineral exploration. It is also to do with the political instability that has rocked the region during the "Arab Spring": no matter what one's thoughts of the events from December 2010 to the present, it is hard to deny that many North African states have not yet settled into "business as usual". However, this is not to deny the importance of some North Africa countries to Africa's overall mineral output: Morocco's potash industry, the iron ore of Mauritania, and the efforts of Egypt to attract mining investment all deserve an honourable mention. •

Regions

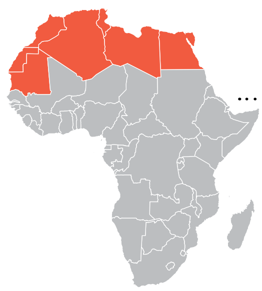
While there is some discussion about the exact division of Africa's regions, we have chosen to follow the groupings of the African Development Bank. This varies quite substantial from other regional definitions, such as those of the United Nations, and are as follows:

CENTRAL AFRICA

Cameroon, Central African Republic, Chad, the Democratic Republic of the Congo, the Republic of the Congo, Equatorial Guinea, Gabon, São Tomé and Príncipe

EAST AFRICA

Burundi, the Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Seychelles, South Sudan, Sudan, Tanzania, Uganda

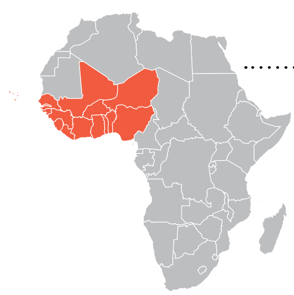


NORTH AFRICA

Algeria, Egypt, Libya, Mauritania, Morocco, Tunisia

SOUTHERN AFRICA

Angola, Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Zambia, Zimbabwe



WEST AFRICA

Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, the Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo

Disclaimer

For the quantitative data we have included in each country profile, it is important to note that these figures are intended to provide a broad picture of the country rather than an entirely accurate overview. We have made substantial efforts to ensure that all figures come from the most reliable sources, and have listed those sources where applicable. Yet almost without exception there will be equally reputable sources that give slightly differing data. Some figures, such as the average all-in sustaining cash cost of gold production in each country, are based only on available data. Others, such as production figures, are based on the latest available data and, given the rapid growth of African mining in the past few years, may no represent exact output. All figures, unless otherwise indicated, are accurate as of December 2013. •

IMAGE: FREDA REBECCA CONCETE TEAM

Africa as a Country

Realities and Perceptions in Mining and the Wider Economy

The palatable excitement that accompanies talk of Africa's economic rise has been inevitably and rightly accompanied by discussions of the extent to which one can draw generalisations about what is arguably the most economically, politically and culturally diverse continent on the planet. As growing numbers of companies describe themselves as "Africa focused" and publications talk of "Africa's decade", those who recognise the remarkable variety present increasing fall back on a common refrain: "Africa is not a country".

Yet it would be disingenuous to deny that common themes can be drawn from across the continent. If nothing else, the shared colonial history of sub-Saharan African countries – which almost universally fell under colonial control between 1884 and 1914 and gained independence from the European powers between 1957 and 1977 – has given rise to a model of subsequent development that reoccurs repeatedly: albeit with multiple variations and some notable exceptions. Recognition of these similarities is not confined to outsiders with imperfect understanding: the Pan-African movement evolved in response to common struggles and finds more recent expression in the essays of writers such as Ayi Kwei Armah.

Resistance is therefore less against generalisations about Africa than against negative generalisations about Africa. Talking about the prevalence of corruption on the continent may be accurate – 38 of Africa's 54 sovereign states are positioned in the bottom half of Transparency International's Corruption Perceptions Index – yet ignores the rankings of Botswana, Cape Verde, Rwanda, Mauritius, Ghana, Namibia and Lesotho: all considered to be less corrupt than some Western European countries. Similarly, the common narrative of African poverty is, in one sense, only 50% correct: precisely half of African countries are classified as low-income economies by the World Bank, and 11 countries are classified as upper-middle-income economies or above.

Guilio Casello, managing director and CEO of Sundance Resources (an Australian company with iron ore projects in Cameroon and the Republic of the Congo) noted that "there is a gross lack of knowledge in the market regarding mining in Africa. There is widespread fear of the place: in part because of its complexity. Africa is a continent with 52 countries, all of which are vastly different. Certainly corruption, infrastructure problems, and political instability are inherent to certain regions of Africa, but investors should realize that Cameroon and the Congo have been politically stable for 26 and 14 years, respectively."

Fortunately, the most prominent themes of discourse about Africa are changing from corruption and poverty to economic potential. This new theme remains a generalisation. The oft-quoted fact that six of the 10 fastest-growing economies of the past decade were African is, in truth, not a substantial improvement on the previous decade of 1995 to 2004, during which four of the 10 fastest-growing economies were African, including the only three to show average annual GDP growth rates of above 10%: Equatorial Guinea, Sudan and Rwanda. If the current optimism in and for Africa were solely down to the performance of individual countries, it would have started long ago (the rankings have also changed in the three years since the Economist first quoted that fact, with Chad, Mozambique, Nigeria and Rwanda dropping out of the top 10).

It is, instead, the performance of "Africa" as a broad entity, rather than its constituent states, which demands attention. That the combined GDP growth of sub-Saharan Africa has been higher than any region bar Developing Asia over the past three years – a trend that is expected to continue in the medium term – is more important than the performances of individual markets for two reasons. Firstly, the increased integration of organisations such as the Southern African Customs Union (SACU), the East Africa Community (EAC), or the Economic Community of West African States (ECOWAS) promises to increase levels of intra-African trade. Current levels are very low, at around 10% to 12% compared to roughly 40% for North America and above 60% for Western Europe, and as such intra-African trade represents a potentially huge source of economic growth for the continent; provided that regional economies are devel-

THE WORLD'S FASTEST GROWING ECONOMIES
SOURCE: IMF

	REAL GDP AVERAGE ANNUAL % CHANGE 1995-2004		REAL GDP AVERAGE ANNUAL % CHANGE 2004-2013*
Equatorial Guinea	**39.3%**	Qatar	14.4%
Sudan	**15.8%**	Azerbaijan	12.8%
Rwanda	**10.1%**	**Angola**	**11.3%**
Qatar	9.6%	Turkmenistan	10.4%
China	9.2%	China	10.3%
Mozambique	**8.5%**	**Ethiopia**	**10.0%**
Maldives	8.4%	**Libya**	**9.9%**
Ireland	8.0%	Mongolia	9.5%
Armenia	8.0%	Timor-Leste	8.7%
Turkmenistan	7.8%	Bhutan	8.5%

*2013 values are estimates

oped enough to offer attractive markets.

Secondly, Africa's challenges demand regional cooperation. Its 16 landlocked countries, the most of any continent, depend upon the infrastructure development of their coastal neighbours to access export markets. With its energy resources unevenly distributed across the continent – 60% of Africa's hydropower potential is concentrated in the DRC and Ethiopia, for example – cross-border initiatives are the easiest way to address the challenge of power deficits, which according to Peter Halliday, regional sales manager Oceania, Middle East & Africa for APac Energy (a provider of large-scale rental power services for the mining industry) range between 30% and 70% dependent on the region. The common growth seen throughout Africa not only makes collaboration easier, but changes the dynamics in what were often unequal arrangements: Egypt's diplomatic outreach to the riparian countries of the Nile, spurred by Ethiopia's construction of the Grand Renaissance Dam, is a clear example of this.

Viewing Africa as a whole also allows trends to be seen that would be missed in examinations of single countries, no matter how detailed. Nowhere is this truer than in the mining sector. During the last fall in commodity prices, in 2009, African production fell faster and deeper than other regions: its share of global bauxite production fell from 9.73% in 2007 to 8.04% in 2010; its share of global gold production fell from 21.32% in 2007 to 18.63% in 2010; and its share of global vanadium production fell from 36.1% in 2007 to 24.7% in 2009. The same fall occurred in chromite, coal, cobalt, copper, diamond, iron ore, lead, manganese, uranium, and zinc.

Commodity prices are falling again, accompanied by a decline in exploration investment that some predict could lead to a loss of a third of the global junior market. Yet, although missing figures do not yet allow us to create a complete picture of 2013's total mineral output, indications are that the African mineral industry has not suffered disproportionately as it did before. The continent's share of global uranium production, for example, increased between 2011 and 2012. Third quarter results for 2013 show a year-on-year increase in African share of production, albeit slight, for three of the four largest gold producers operating on the continent (when factoring in the decision of Gold Fields to spin off the KDC and Beatrix mines). Similar clues exist for other minerals.

This general observation would indicate that investors who once viewed "Africa" as a risky jurisdiction – and therefore the first place to leave when times became challenging – are reassessing their perception of the continent as a whole. Indeed, far from fleeing the continent, some miners (particularly Australian) "have placed more weight on African projects for growth during the current downturn," according to John Madew, senior trade commissioner at the Africa-Australian Trade Commission.

It also points to the increased diversification of the continent's mineral industry. Previously, sweeping statements about the "African mining industry" were heavily skewed towards a handful of countries that accounted for the overwhelming majority of African production: Morocco dominated phosphate production, Niger and Namibia dominated uranium production, the DRC dominated cobalt production, and South Africa accounted for between 50% and 100% of seven of the 13 minerals of which Africa was a significant global producer (over 10% of global production). The well-documented troubles of some of these countries – and South Africa especially – therefore had a substantial effect on overall African output.

Today, however, exploration expenditure on the continent has reached close to 20% of the global total and this influx of interest has opened up new jurisdictions. Countries such as Burkina Faso have become increasingly important gold producers, Malawi has emerged as a significant uranium producer, East Africa has demonstrated its gold potential and shows promise for rare earth elements, and West Africa is being touted as the world's new important source of iron ore. Companies are following geological trends from more established jurisdictions to new regions: Nevsun Resources' Bisha gold and copper mine is located on the Nubian Shield, but is the first commercial mine in Eritrea; the exciting Boto gold project of IAMGOLD in Senegal show geology "quite similar to western Mali", a far more established gold producer, according to Oumar Toguyeni, regional vice president, West Africa for IAMGOLD.

While this new plethora of viable investment destinations has not yet translated into the type of international competition that would translate into regulatory frameworks advantageous for companies – indeed, the stories of the past year have more commonly been raised taxes and state equities than investment incentives – it has nonetheless had tangible benefits, particularly in allowing service companies to build capacity in larger regional markets rather than smaller domestic ones, and therefore better support mining and exploration companies. International mining consultants SRK Consulting provide an example of this: with falling gold prices putting strain on the mining industry of their regional headquarters Ghana, they have been able to expand to other markets. "At the moment, we have more projects ongoing outside Ghana than within the country. A large number of the new projects coming online are in countries that have not traditionally had a mining industry, such as Nigeria, Sierra Leone, Liberia or Burkina Faso. Ghana, on the other hand, has been mining for 100 years," explained John Isaac Kwofie, Principal Engineer, country manager of SRK Consulting Ghana.

Looking at the mining industries of individual countries presents a mixed picture: some countries are undoubtedly suffering from falling mineral prices and a range of other issues, including traditional mining leader South Africa. Yet looking at Africa as a whole reveals a more positive image. The resilience of the continent's mineral sector even in these difficult times is an indication that it is expanding, diversifying and maturing. As such, it lends weight to the overall picture of Africa's economic growth that is gradually replacing generalisations of conflict, corruption and poverty. This shift in perceptions is welcome, and recognition of Africa's strengths is more useful, and increasingly more accurate, than a list of its weaknesses. •

CENTRAL AFRICA

Cameroon
Central African Republic
Chad
• The Democratic Republic of the Congo
The Republic of the Congo
Equatorial Guinea
Gabon
São Tomé and Príncipe

IMAGE: COURTESY OF MCK

Just one country from Central Africa makes it into our top 20 this year. It should come as no surprise to anybody that this country is the Democratic Republic of the Congo (DRC). There are two primary reasons behind the omission of any other jurisdictions from the region: political stability and geography.

The geological wealth of Central Africa is obvious. The massive mineral reserves of the DRC contain an estimated $24 trillion worth of untapped mineral wealth. The Central African Republic is a globally significant producer of diamonds, Gabon is a globally significant producer of manganese, and the Republic of the Congo has been attracting interest in its iron ore potential in recent years. Yet for the most part this wealth is undefined: Cameroon and Chad, for example, are known to contain undeveloped deposits of bauxite, gold and other minerals but limited exploration has left them ill-defined.

The challenges of Central Africa are also well known. The Democratic Republic of the Congo (DRC), by far its largest country in terms of both geographical area and population, has become a byword for instability. While this is perhaps unfair, given the progress some of its constituent regions are making, it is certainly understandable: the Second Congo War, which was fought between 1998 and 2003, is judged to be the deadliest in modern African history. Chad has been regularly afflicted by religious and political violence since its independence in 1960. The Republic of the Congo suffered a civil war between 1997 and 1999. In the Central African Republic inter-religious fighting has afflicted the country since the overthrown of General François Bozizé in March 2013.

Signs of improvement are evident. Of the region's eight countries all but two (the Central African Republic and the DRC) have increased their score on the Ibrahim Index of African Governance over the past five years: Chad and Gabon substantially so. The DRC may have fallen slightly, but this ignores provincial discrepancies: Katanga province, with its admirable governor HE Moïse Katumbi Chapwe, has cast off negative perceptions to achieve high growth and social development. However, the majority of the region's countries still fall below the African average.

Although only two countries in the region, Chad and the Central African Republic, are fully landlocked, the huge area and tiny coastline (40 km) of the DRC means that it suffers from the same logistical challenges. As Charles Brown, COO of Tiger Resources Ltd (who operate the Kipoi copper mine in the DRC), explained, "Katanga is landlocked, 1,400 km from Dar es Salaam and 1,700 km from Durban; highways feed both, the Durban one running within 6 km of our site, although there are multiple border crossings, which take time and reduce the efficiency of transferring goods in and out of the region."

While there are efforts to reduce these challenges ("the governments of DRC and Angola are in the final stages of finalizing a 900 km railway line, which will pass between our processing plant and pit," said Brown), these solutions are necessarily capital intensive and subject to long timeframes given the huge distances involved and the intra-regional cooperation required.

Yet despite the poor showing from the region in our top 20, we do believe that overly negative opinions Central Africa are unfair, and the business environment varies widely both between countries and within countries. In the DRC especially, the recent troubles in North Kivu and South Kivu are located roughly 1,600 km from Lubumbashi, capital of the Katanga province where most mining activities are located. "There are areas of DRC that are best avoided but the south of the country is a mining-friendly region. DRC only mirrors other countries where there are regions less hospitable for mining than others," said Bruce McFazdean, managing director and CEO of Mawson West Ltd, a copper producer and explorer focused on the DRC. "There are many big multi-international companies establishing in DRC; the country's growth forecast is 7% to 8%. In years to come, DRC will produce great opportunities for the mining fraternity, and return for its investors."

Indeed, many companies have found that the underdeveloped nature of Central Africa's mining industries have contributed to governments eager to attract investment and therefore supportive of the companies whose exploration interests carry them inside their borders. "The ability of Sundance Resources to conduct business in these regions is evidenced by the support that we have received from the President of Cameroon for our projects. This is an acknowledgement of the impact that our mine will have on both the countries' GDP," explained Guilio Casello, managing director and CEO of Sundance Resources Ltd, and iron-ore focused company focused on Cameroon and the Republic of the Congo.

David Meehan, COO and project director of Sundance Resources, was keen to address another misconception: "many are surprised on their first visit to Cameroon: the population is educated and very hardworking. While Cameroonians need training in leadership and financial management, the base intelligence required to grow a mining industry exists in abundance… We have received strong levels of political support in the development of our concessions. This is not something that can be said of many other operating environments."

A few general trends can be discerned across the region. It is predominantly Francophone, meaning that legal systems are based on civil law. An understanding of this business environment gives a distinct advantage. "Since most mining companies are coming from Anglophone areas, they are not initially aware that on the ground in Francophone countries you have a company like Bernabé that is completely specialized," explained Yohannes Mekbebe, general manager of the Yeshi Group (parent company of equipment providers Bernabé Senegal). "Most of our sales force for our industrial equipment, water equipment, and steel lines are engineers. When mining companies come into a country, they will bring everything they can with them. If they have any problems, however, they have to wait to fly it in new parts. If mining companies knew that niche businesses like ours existed, they would have to procure much less."

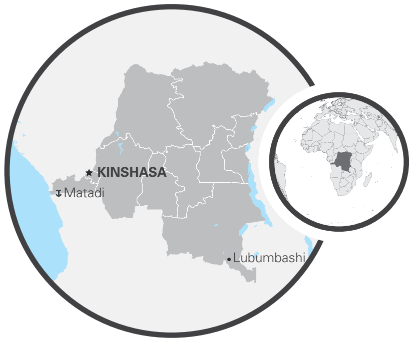
"We are staying very positive, despite the slowdown during the last few months, because the medium to long-term growth prospective for the DRC is still very strong.

- Geert Van Gansbeke,
Area Manager Africa, Polytra"

Central Africa is certainly exciting, but it remains the one region that most conforms to the "high-risk-high-reward" stereotype of African mining. As a broad statement, we believe that the risk is higher than commonly found in other regions while the reward, unfortunately, remains too great an unknown. The DRC is our exception for two reasons: firstly, the efforts of Katanga province to facilitate mine development deserve commendation; and secondly, the sheer scale of its mineral wealth demands attention. •

Democratic Republic of the Congo

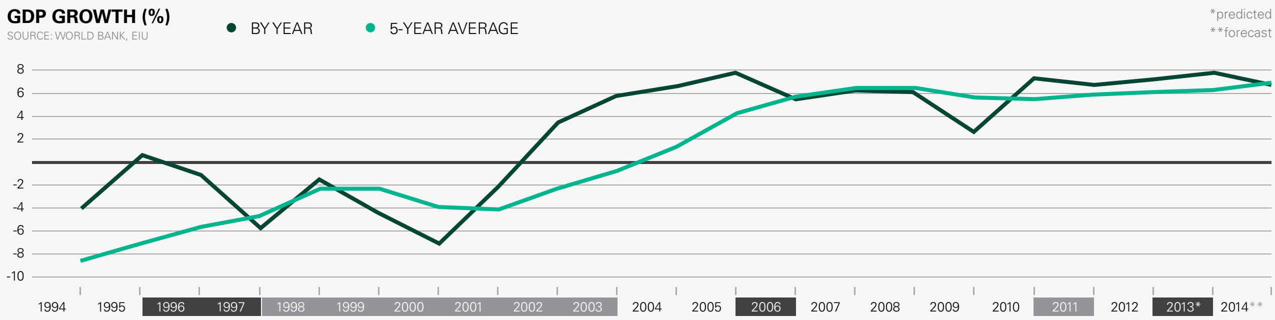
The Democratic Republic of the Congo gained infamy under Belgium's colonial rule, and the problems caused by this legacy continue to play a role in the sporadic violence that continues to this day. Despite this, there are signs that some regions are significantly improving. The mineral potential of the Democratic Republic of the Congo is among the most exciting in the world. Despite the challenges facing investors, the country is a globally significant producer of cobalt, copper, diamonds, tantalum and tin.



POPULATION 75,507,308 (July 2013 est)
LAND AREA 2,344,858 sq km
OFFICIAL LANGUAGE(S) French
CAPITAL Kinshasa
CHIEF OF STATE President Joseph Kabila
HEAD OF GOVERNMENT Prime Minister Augustin Matata Ponyo Mapon
GDP (PPP) $27.53 billion (2012 est)
GROWTH RATE 7.1% (2012 est)
GDP PER CAPITA $400 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 38.4%, industry: 25.9%, services: 35.7% (2012 est)
Exports: $11.28 billion (2012): diamonds, copper, gold, cobalt, wood products, crude oil, coffee
Imports: $9.237 billion (2012): foodstuffs, mining and other machinery, transport equipment, fuels
MAJOR TRADE PARTNERS China, South Africa, Zambia, Belgium

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



First Congo War leads to the installation of Laurent-Desire Kabila as president and the renaming of Zaire to the Democratic Republic of the Congo

Second Congo War, the deadliest in modern African history, officially ends with the establishment of a transitional government, although conflict with the Lord's Resistance Army and the Kivu and Ituri conflicts continues until 2008

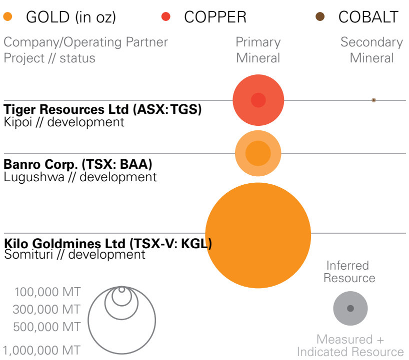
First multi-party elections won by Joseph Kabila

Critics claim that constitutional changes make it easier for Kabila to remain in power

M23 troops briefly caputre Goma, the capital of North Kivu province

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

1059

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

as of 2011
in mt unless otherwise stated

Coal (bituminous)	133.400
Cobalt	108.888
Columbite-Tantalite	260
Copper	480.000
Diamond**	19.249.057
Gold**	3.500
Silver**	9.187
Tin	3.549
Tungsten	19
Zinc	9.518

**in carats ***in kilograms

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

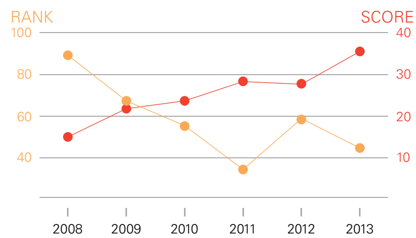
2007 **5.5%**

2011 **8.4%**

These values do not include artisanal mining. The USGS placed the 2008 value at 13.4% of GDP, and a report by the French Ministry of Foreign Affairs placed the value at 28% in 2011.

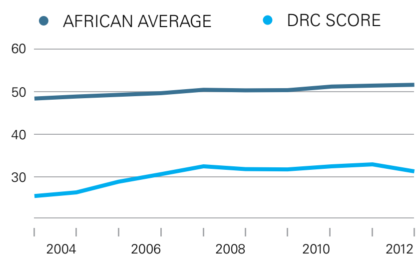
FRASER INSTITUTE ANNUAL SURVEY OF MINING COMPANIES

SOURCE: FRASER INSTITUTE



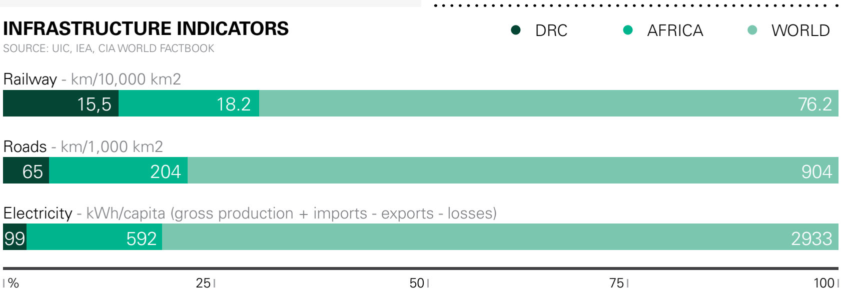
IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

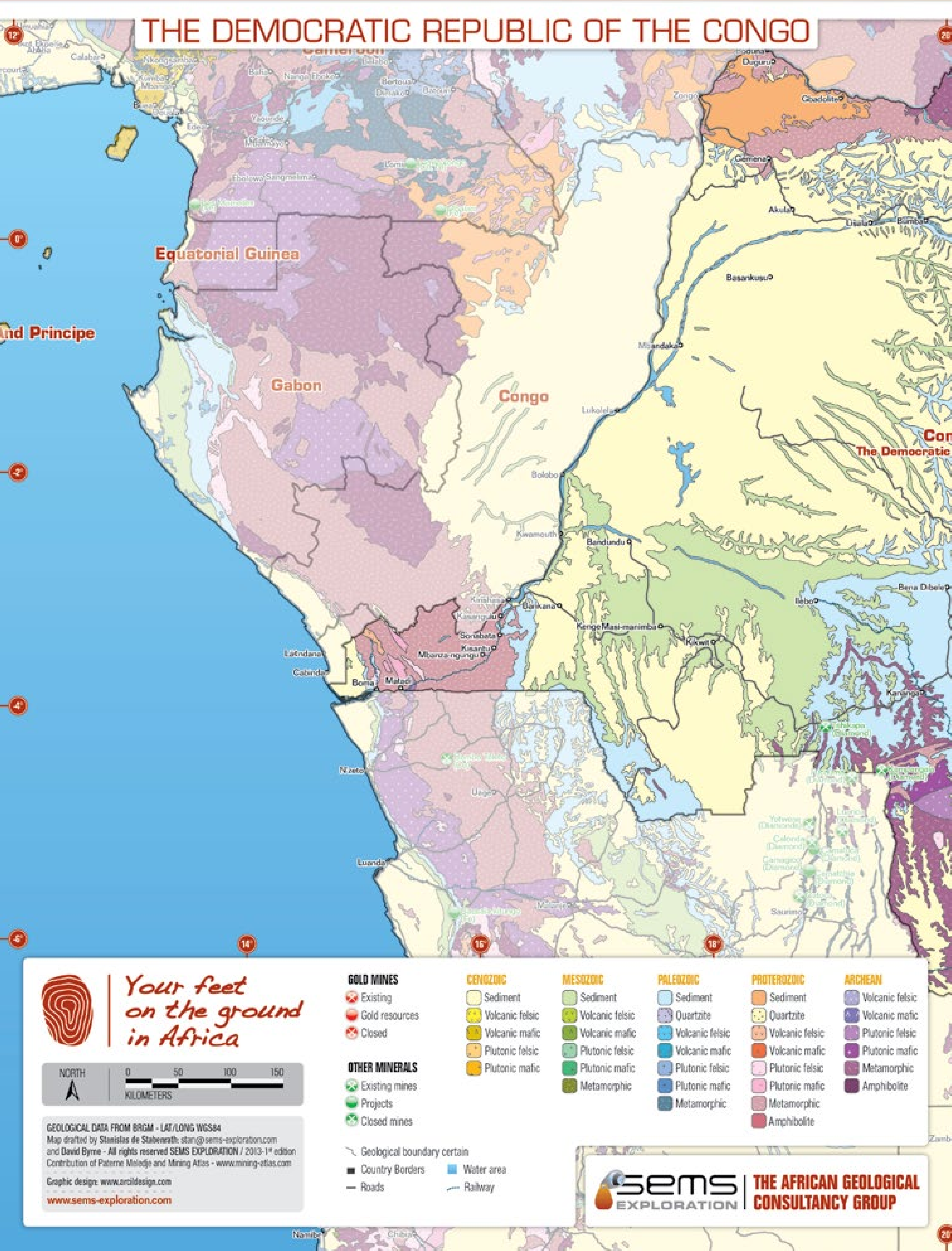


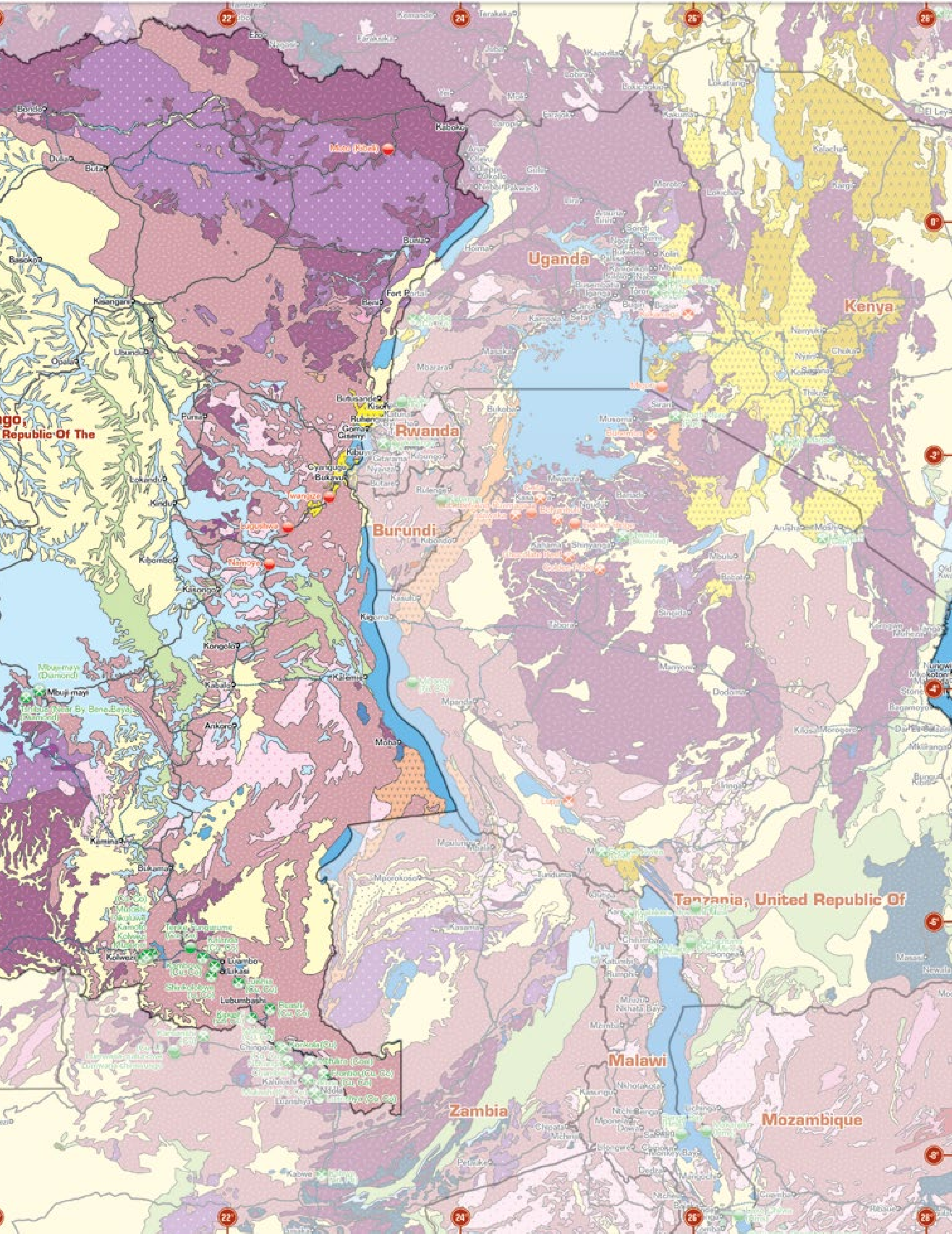
BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	178	183	183
Index of Economic Freedom (177)	167	171	172
Global Competetivines Report (148)	-	-	-

THE DEMOCRATIC REPUBLIC OF THE CONGO





Republic Of The
Uganda
Kenya
Rwanda
Burundi
Tanzania, United Republic Of
Malawi
Zambia
Mozambique
Bondo
Buta
Basoko
Kisangani
Ubundu
Opala
Punia
Lokandu
Kindu
Kibombo
Kasongo
Kongolo
Kabalo
Kalemie
Ankoro
Moba
Kamina
Bukama
Kolwezi
Likasi
Lubumbashi
Mbuji-mayi
Bunia
Fort Portal
Goma
Bukavu
Kigoma
Kampala
Mbarara
Masaka
Bukoba
Musoma
Mwanza
Tabora
Singida
Manyoni
Dodoma
Arusha
Mpanda
Mpulungu
Kasama
Kabwe

INTERVIEW WITH

His Excellency Moïse Katumbi Chapwe

Governor of Katanga Province
THE DEMOCRATIC REPUBLIC OF THE CONGO

In 2006 you found the Province of Katanga with a budget of just $21 million. Today, in 2013, the budget is $658 million. Given that Katanga does not receive substantial funds from the central government, how did you achieve this performance?
When I arrived in Katanga, the province was the third contributor to the DRC's GDP and after a year of my mandate, we were number one. Moreover, in 2007, Katanga was contributing only $80 million to the national treasury whereas now we bring in $2.8 billion. We have also been actively fighting corruption since I became governor: the monthly duty that we were receiving from customs in 2007 was $1.2 million while now it is $90 million. Some corruption is left but we are slowly and surely working to eradicate it. We are doing all of this to give people a better life, to build the roads, the water infrastructure, the electricity, the schools. Now, results can be seen everywhere: life changed in Lubumbashi, in Kolwezi, in Likasi. Sendwe Hospital in Lubumbashi has 2,500 beds today that are accessible to everyone, from all parts of the province, irrespective of their financial status. All these achievements would not have been possible without the trust that I build with the investors and our excellent collaboration. Katanga is supposed to receive back 40% of its contribution to the central government but today, we get only about 3% of that; adding the 4% for the salaries still leaves us under 10%. The central government should respect the constitution, which is very good, and should return the 40% to us because we will make good use of it, developing even more the economy.

Can you tell us more about the current situation of the mining industry in Katanga, and how you are dealing with the issue of power supply in the province?
In 2006, we were exporting 18,000 mt of copper cathode yearly and now we are at over 650,000 mt; if we include concentrates, that number goes up to more than 1 million tons. I was criticized at the time but I had a vision to create added value here: in two years' time, Katanga will be exporting 1,500,000 tons of copper cathode a year.
The electricity issue is a result of the mistakes of past governments, which should have signed the Inga project earlier with our South African partners. However, I want to reassure everyone that things will change very soon in Katanga. We are currently working on the Luapula project, at the border between Katanga and Zambia, which will bring 1,400 MW of new capacity in Katanga in two years' time. We also have several mining companies working on five different power projects, such as Tenke Fungurume at the Nseke hydroelectric power plant. Moreover, Inga phase two is going to be completed in December so with all this power coming online, Grand Inga will serve more for power exports.

What achievements are you the most proud of?
In 2006, there were 600,000 students in primary and secondary schools and now we have 3 million. We have to educate people, so as to give them a chance to do something once the resources disappear. With the help of mining companies, we are training technical people and rehabilitating schools across the province; the DRC needs a middle class. Road infrastructure is also essential: when the Belgians left Katanga, there were only 450 km of roads in a province the size of France. In six years, I have built 1,400 km of asphalt road and 5,000 km of dirt road. A lot of the credit for this goes to the South African IDC bank because they financed a great deal of our development projects. They helped us at the right time because people had nothing to eat and we were importing 90% of our food, while now that number dropped to 35%. I told mining companies to develop agriculture projects because food is a basic need. Without it, people will not be able to do anything and they will look towards their governor to find answers. As a leader, you have to understand the people and not forget them.

The dialogue to amend the 2002 Mining Code has started. What is your opinion regarding these amendments?
Changing the mining code is not good for the business community and we should keep the promises we made to these investors when they first came here. Perhaps new players can be subjected to these laws, but it is essential to have a dialogue and an agreement between the mining sector players, the chamber of commerce and the government: I am not going to accept this code otherwise. We run the risk of killing investment in the country and that cannot happen. It is my job as governor to create stability in my province, and if people lose their jobs as a result of this code, I will be responsible. I cannot agree with something that will negatively impact the business sector. •

The governor of the DRC's Katanga province, Moïse Katumbi Chapwe, hopes for 1,500,000 mt/y of copper to be produced in his province by the end of 2015. With US Geological Survey data showing that the DRC produced 580,000 mt of copper in 2012, this seems almost naively ambitious.

In the context of Katanga's recent progress, however, it is certainly possible. Since Katumbi took office in 2006 the province's annual budget has increased from $21 million to $658 million in 2013, and industrial investment has risen from $5 billion to $20 billion. Inspired by these improvements, and the business environment that has enabled them, the province's largest miners have planned expansions. "The Katanga government is making important strides to improve the infrastructure in the province. Roads are better, the airport is being refurbished, and almost the entire road to Kolwezi has been paved. The DRC Railway Company (SNCC) has also obtained new locomotives, and tenders are ongoing for the delivery of new rails and the maintenance of the existing railway system. Tenders are also ongoing for obtaining new wagons. If things continue the way they are at the moment, the infrastructure will improve markedly during the next few years," said Geert Van Bansbeke, area manager Africa for international logistics company Polytra.

Almost single-handedly, Katanga is dragging the entire country towards becoming the mining powerhouse it has the potential to be. "People have preconceptions about the country and they do not realize how far Goma is from Katanga, how far away the problems are. We have made serious investments in the country and that in itself is proof that Group Five is committed to DRC," said Paul De Gernier, general manager in the DRC for construction company Group Five.

REGULATORY ENVIRONMENT

The process to amend Law 007/2002, more commonly known as the DRC's Mining Code, has been one of the mining industry's main concerns over the past year. Negotiations are ongoing, yet the proposed amendments so far not only fail to address the major challenges of the sector but also threaten to adversely affect investment.

Controversial suggestions include increasing state participation in mining ventures from 5% to 35%, with an addition 5% to be added at every exploitation permit renewal; the increase in corporate income taxes from 30% to 35%; a royalty rise to 6% for both non-ferrous and precious metals; and the reduction of exploration permits from 15 years to just six.

With average operating costs for copper mines in Katanga sitting between $3,500 and $4,000/mt, and the copper prices at $7,374 at the time of writing, there is scope for the DRC to increase their take of mining revenue. These amendments, however, are excessive. More worrying, some of the suggested amendments appear to remove the certainty required to make substantial capital investments. Under the current law, the fulfilment of certain obligations all but guaranteed the approval of further licenses Some of the proposed amendments remove the obligation of government officials to present reasons for the refusal of a license.

Also of worry is the ban on copper and cobalt exports – a move intended to encourage in-country beneficiation – announced on April 5th. This has not yet been implemented, with the original 90-day moratorium extended until the end of 2013. The DRC currently lacks the energy infrastructure required for substantial downstream processing: a point cited by Katumbi when he refused to implement the ban in Katanga.

PRODUCTION AND EXPLORATION

Increasingly severe power outages in 2011 and 2012 meant that 2013 was a year of consolidation, as companies sought to secure the electricity required to restore nameplate capacity production at their mines. As the situation gradually improves expansion plans are the outlook for 2014.

For Gécamines, DRC's state-owned mining company, 2012 was the start of its 2012-2016 Strategic Development Plan. "As part of the plan, Gécamines recommenced its exploration programmes, which had been on hold for more than 20 years and, to date, we have drilled 12,334 meters, increasing our total copper reserves to 4,851,000 mt. We have also embarked on a journey to augment the capacity of our production units: the Kambove and Kolwezi's concentrators' capacities were increased by 600 and 1,000 mt/d during 2012," explained Kalej Nkand, CEO of Gécamines.

Multinationals still dominate production, however, and are almost universally increasing their stake. TFM, the DRC's largest single copper mine, is operated by Freeport-McMoRan and with its Phase II expansion programme, it looks set to continue its leading role. 2013 saw Eurasian Natural Resources Company (ENRC) increase its production due to its newly inaugurated 40,000 mt/y copper concentrate Frontier mine. Expansion plans are moving forward at the Mutanda/Kansuki project, the result of a merger between Mutanda Mining and the neighbouring Kansuki project: GlencoreXstrata holds a majority stake in both. A 450 MW power project, due to be complete in 2015, is already having an effect on GlencoreXstrata's Katanga Mining operation, which saw a 40% year-on-year increase in H1 2013. Tiger Resource, who operate the Kipoi copper mine, achieved record production in H2 2013.

The importance placed upon the DRC by many of multinational mining companies is testament to its potential. "DRC is central to MMG's African expansion strategy, and Kinsevere is the company's spearhead in the continent," said Miles Naude, general manager of MMG, a subsidiary of Minmetals Resources, who run the Kinsevere site at its nameplate capacity of 60,000 mt/y.

In addition to expansion at existing mines, new projects are in the pipeline. The Kamoa project of African Minerals, a subsidiary of Ivanhoe Mines, put out a resource estimate in January 2013 that shows it to be the world's largest undeveloped high-grade copper discovery, with indicated resources of 739 million mt at an average copper grade of 2.67%, containing a total of 43.5 billion pounds of copper. •

EAST AFRICA

Burundi
The Comoros
Djibouti
Eritrea
Ethiopia
• Kenya
• Rwanda
Seychelles
South Sudan
Sudan
• Tanzania
• Uganda

MOUNT KILIMANJARO (TANZANIA) SEEN FROM KENYA
IMAGE: MICHAL BEDNAREK

East Africa, with four countries in our top 20 (Kenya, Rwanda, Tanzania and Uganda) and one special mention (to Somaliland), contains what will almost certainly be our most controversial choices. Though there is no doubt that the region is making rapid progress in developing its mining industries, there is also little doubt that, in most of East Africa, the sector remains in its nascent stages. For only one of the six we have chosen (Tanzania) did companies provide sufficient feedback to enable its inclusion in the Fraser Institute's Annual Survey of Mining Companies 2012/2013, and others have yet to host a large-scale commercial mine.

Despite this, we feel the strong presence of East Africa in this year's publication is warranted due to a mix of the region's relatively untapped mineral potential, stable business environment, and various infrastructure development initiatives. This opinion of the region's potential is lent weight by the huge surge of interest companies have shown in the region in the past few years: the number of registered exploration and mining companies in Kenya, for example, has risen from 30 in 2011 to over 300 today. Uganda has seen its number of exploration and mining licenses grow from 66 in 1999 to 517 in 2010. Rwanda's mineral export revenues have grown by an average 44% per year between 2008 and 2012, and are forecast to reach $190 million in 2013.

East Africa's mining industry is young. The first modern commercial gold mine in Tanzania, boasting the most mature mining jurisdiction in the region, still only dates back to 1999. This youth does raise certain issues. "Mining is relatively new in this region, and although the Tanzanian labour force is developing at a high pace some jobs require 25 years of experience; sometimes, therefore, the industry has to draw on older mining countries," explains Henry Ngugi, managing director of mining technology provider Atlas Copco Tanzania.

Yet this youth also provides scope for far greater growth. Tanzania's position as the fourth largest gold producer in Africa – after South Africa, Ghana and Mali – despite its short history is impressive. Supported by the production of nine other minerals – including diamond, silver, copper and coal – and known but undeveloped deposits of iron ore, nickel, cobalt, phosphate and uranium, the government hopes to increase the sector's economic contribution to 10% of GDP by 2025. Tanzania is also rapidly becoming a mining hub for the region, with a service sector that cannot only support domestic mining growth, but that of its neighbours. Atlas Copco, for example, uses Tanzania as a regional head office from which it services Eritrea, Ethiopia, South Sudan, Kenya, Uganda, Mauritius, Madagascar, Rwanda, Burundi and eastern parts of the DRC. Drilling company Bamboo Rock Drilling, is a "Tanzanian-based business with an East African focus", according to Darren Smit, the company's managing director.

Rwanda the world's fourth largest producer of tantalum, shows similar potential for niobium production, as well as other minerals. Companies in Kenya are exploring for niobium and rare earth elements (REEs) in central Kenya, titanium minerals and coal on the east coast, and base metals and gold in western Kenya. With a few exceptions, East African states can also boast favourable business environments. Political stability in the region is beaten only by Southern Africa. Tanzania (excluding the semi-autonomous Zanzibar) is famous for its lack of ethnic and political tension ("[Tanzania] is quite a stable country, socially and politically; the economy is also stable and is growing," says Ngugi of Atlas Copco Tanzania. "The country is very secure compared to its neighbours."). For Kenya, peaceful 2013 elections and the so far smooth process of devolution have substantially repaired its reputation after the 2007 election violence. Uganda and Ethiopia have both had problems with rebel or separatist groups, yet for the most part these are sporadic and limited to the northern parts of the countries. Rwanda under Paul Kagame has put its troubled past firmly behind it and is considered by many to be among the best-governed countries in Africa.

Accompanying this political security are mining codes that, although not free from problems, compare favourably to those elsewhere. Corporate income tax – hovering around 30% in most of the region – and mineral royalties – generally around 5% - are fairly standard for the continent. State equity participation in mining operations is generally less than in other African regions, where it typically hovers between 10% and 15%. Under current laws, Rwanda's government requires no equity, and though Tanzania's 2010 Mining Act suggests the possibility of a government free carried interest this is left vague and does not seem to have been widely implemented. As Gideon T. Mwaya, director of exploration and development for Tanzania's State Mining Corporation (STAMICO) explains, "resource explorers are now choosing to operate in Tanzania over many other emerging mining jurisdictions because of the potential of our resources and the transparency and stability of our policies. Investors are confident that their money is protected."

"Tanzania does have certain advantages: it is quite a stable country, socially and politically; the economy is also stable and is growing. The country is very secure compared to its neighbors."

- Henry Ngugi, General Manager, Atlas Copco Tanzania

Developments in Kenya have obviously caused some concern, with mineral royalties being raised, a 35% local ownership requirement introduced, and the revoking of all licenses granted between January 14th and May 15th in August 2013. The new mining royalties, at 5% for gold and 10% for rare earth elements, niobium and titanium ores, are very high and the 35% local ownership requirement, although speculated to be revoked, is well above average. Yet the revoking of licenses (43 in total) is arguably necessary. Kenya's Mining Secretary Najib Balala inherited oversight of an industry that was criticised by the International Monetary Fund for its lack of transparency and in which multiple licenses were clearly awarded through questionable processes. Though potentially unfair on some companies – most notably Cortec Mining, a joint venture between Pacific Wildcat Resources (70%) and Kenyan businessman Jacob Juma (30%) who operate the Mrima Hill niobium and REE project – without strong measures to fix a system that was obviously failing the future of Kenya's mining industry would have relied on very shaky foundations.

Also admirable is the region's efforts to engage with artisanal and small-scale mining (ASM), which is estimated to directly employ 8 million workers across Africa and support between five and 10 times that number. The Southern and Eastern Africa Mineral Centre, headquartered in Dar es Salaam, provides free training to artisanal miners. Ethiopia, even though it did not make our top 20, deserves special mention: the ease with which they enable artisanal miners to enter the formal sector, combined with their centralised gold purchasing system, has turned what is typically an informal activity causing problems for governments and larger companies alike into a significant contributor to the national economy. As such, other countries in Africa and elsewhere could do worse than adopting Ethiopia as a model for ASM engagement.

East Africa is also notable for the massive infrastructure developments it is undertaking. The two dominant ports of the region, Dar es Salaam in Tanzania and Mombasa in Kenya, have both seen substantial improvements in recent years. New ports developments are proposed in the two countries: a deepwater port at Tanga (Tanzania) as part of the Mwambani Economic Corridor project; a new deepwater port at Bagamoyo (Tanzania) being built with Chinese backing; and a new deepwater port at Manda Bay (Kenya) as part of the Lamu Port-South Sudan-Ethiopia Transport Corridor (LAPSSET). Although port infrastructure is also going through a boom in West Africa, the scale of investment in East Africa ($68.3 billion at last estimate for the three aforementioned ports and their related corridors) and the focus on accompanying inland infrastructure (a focus that, with a few exceptions, is unfortunately lacking in West Africa despite their current boom in port developments) makes the region the most exciting in the world in this regard.

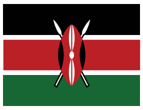
Of the East African states that do not make it into this year's top 20, some are simply too small or in too early a stage of mining development. The Comoros, Seychelles, Djibouti, Eritrea (with just a single commercial mine) and South Sudan fall into this category. The last of this list is certainly one to watch: in 2011 AngloGold Ashanti expressed interest in South Sudan; although little development has been seen since then, interest in such a high-risk destination from such a large company is highly unusual and a very positive indication of the country's potential. Sudan is already a large producer of gold and certainly has great potential to increase this going forward, but we believe there are certain political risks associated with it: Burundi, a large producer of tantalum, does not make it into our top 20 for similar reasons. Ethiopia, which can now boast close to 150 exploration and mining companies, deserves attention not only for its geological potential, but also for its regulatory framework, and misses out on a top 20 spot more due to other countries virtues than Ethiopian issues.

In addition to the four East African countries in our top 20, we have also included a special mention to Somaliland. The jurisdiction, which has been de facto recognised as an autonomous state by many even if not officially recognised as separate from Somalia, represents a stable centre in wider region that has huge mineral potential: Somalia itself, unfortunately, remains too unstable to be recommended as an investment destination to any but the bravest of companies. Located on the Nubian Shield, Somaliland is thought to contain deposits of copper, gemstones, gold, iron, manganese, platinum, REEs, tin, and uranium. The almost complete lack of accurate exploration data on Somaliland undoubtedly creates risk, yet also makes it an almost uniquely untouched exploration frontier. •

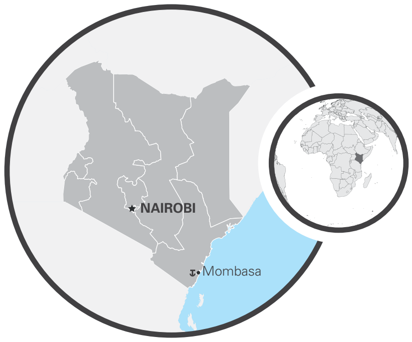
> We will go where the work is, but our first focus will be Tanzania and surrounding countries. Our idea is to grow and offer some of the best services in the country.

- Darren Smit, Managing Director,
Bamboo Rock Drilling

Kenya



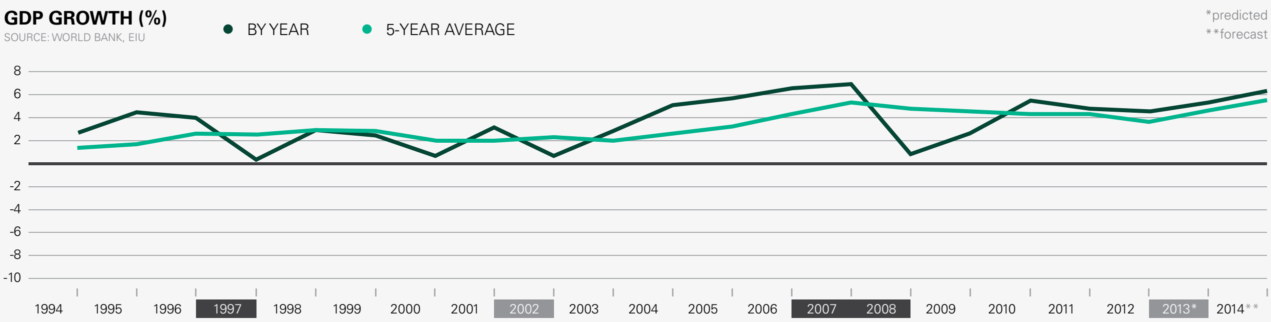
The former British colony of Kenya is commonly regarded as the hub of East Africa, yet widespread political violence following the 2007 election had a substantial negative impact on foreign investment and, as a result, economic growth. Relatively calm 2013 elections should see Kenya coming closer to fulfilling its economic potential. The mining industry is still in its nascent stages, yet there is considerable excitement in gold, niobium, rare earth, ilmenite, rutile, zircon, base metals, copper and coal potential.



POPULATION 44,037,656 (July 2013 est)
LAND AREA 580,367 sq km
OFFICIAL LANGUAGE(S) English, Kiswahili
CAPITAL Nairobi
CHIEF OF STATE President Uhuru Kenyatta
HEAD OF GOVERNMENT President Uhuru Kenyatta
Matata Ponyo Mapon
GDP (PPP) $76.07 billion (2012 est)
GROWTH RATE 5.1% (2012 est)
GDP PER CAPITA $1,800 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 24.2%, industry: 14.8%, services: 61% (2012 est)
Exports: $5.942 billion (2012): tea, horticultural products, coffee, petroleum products, fish, cement
Imports: $14.39 billion (2012): machinery and transportation equipment, petroleum products, motor vehicles, iron and steel, resins and plastics
MAJOR TRADE PARTNERS China, India, Uganda, Tanzania

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



Daniel arap Moi of the Kenya African National Union wins a second term as president with 40.6% of the vote.

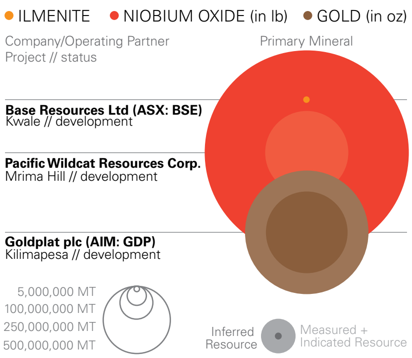
Mwai Kibaki of the National Rainbow Coalition (NARC) is elected president, beating Uhuru Kenyatta.

Incumbent president Kibaki wins elections marked by violence which continues into 2008. During this time an estimated 1,500 people were killed and 300,000 displaced. Opposition candidate Raila Odinga is installed as Prime Minister under an agreement calling for a new constitution.

Uhuru Kenyatta of the Jubilee Alliance, son of Kenya's founding president Jomo Kenyatta, is elected president.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



INFLATION

SOURCE: WORLD BANK

2011	14%
2012	10.1%

MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

as of 2011
in mt unless otherwise stated

Diatomite	250
Fluorspar	95.100
Gold**	2.100
Gypsum	11.000
Kaolin	900
Refined lead	1.000
Salt	24.000
Natural sodium carbonate	499.100

**in carats

MINING SECTOR CONTRIBUTION TO GDP

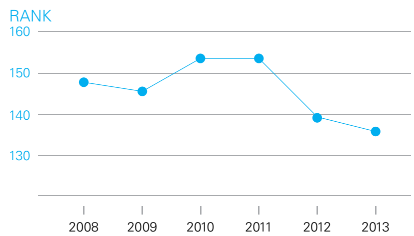
SOURCE: AFRICAN ECONOMIC OUTLOOK

2007	0.8%
2011	0.8%

These values do not include artisanal mining. The titanium project of Base Resources, located in Kwale, is predicted to increase mining's contribution by 1%.

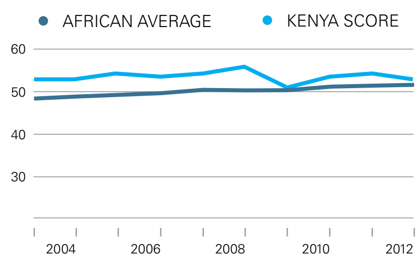
TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

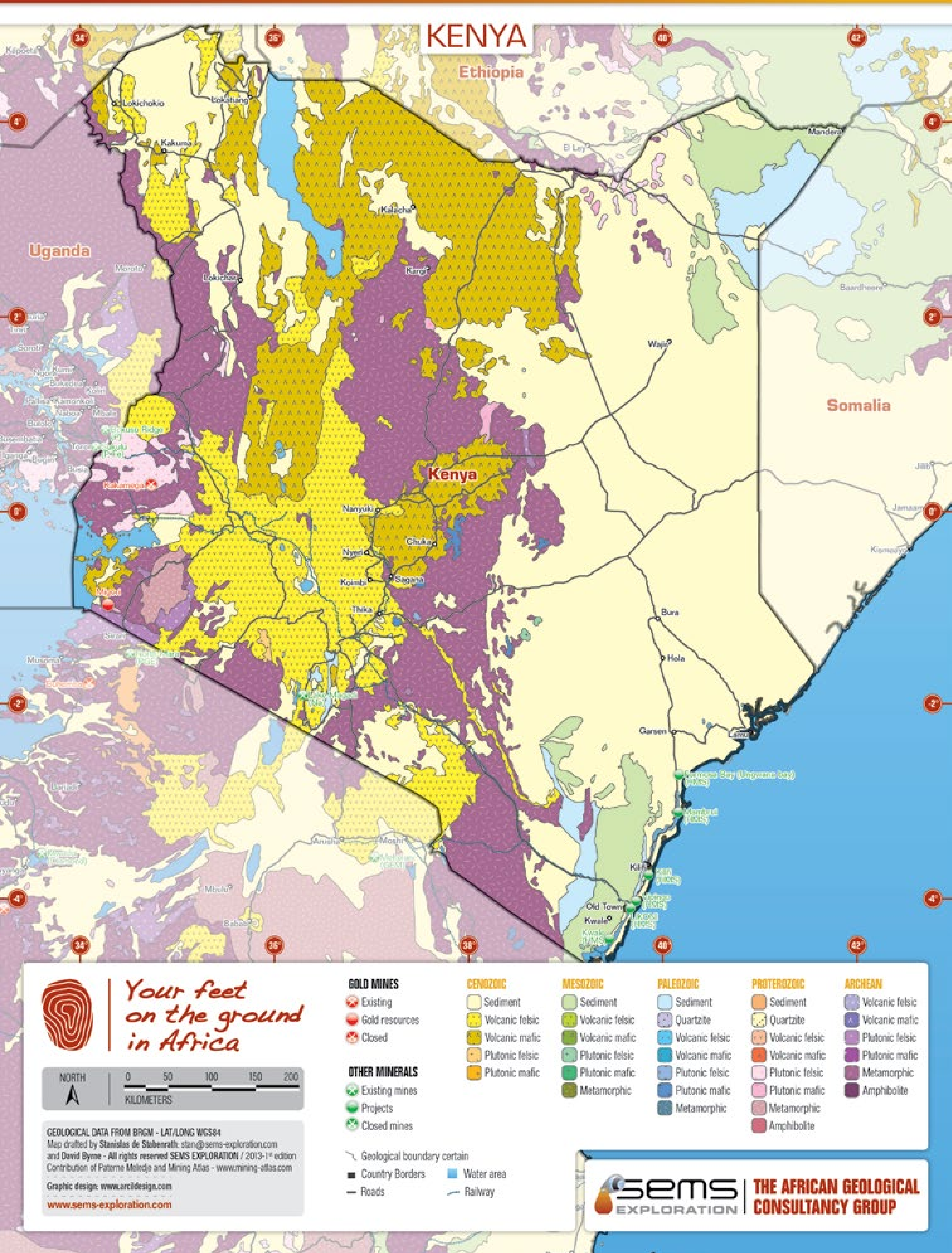
	KENYA	AFRICA	WORLD
Railway - km/10,000 km2	33	18.2	76.2
Roads - km/1,000 km2	277,2	204	904
Electricity - kWh/capita (gross production + imports - exports - losses)	157	592	2933

% 25 50 75 100

BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	109	122	129
Index of Economic Freedom (177)	103	114	111
Global Competetiviness Report (148)	102	106	96



KENYA
Ethiopia
Uganda
Somalia
Kenya
Lokichokio
Lokitaung
Kakuma
Kalacha
Moroto
Lokichar
Kargi
Mandera
El Ley
Baardheere
Wajir
Kakamega
Nanyuki
Chuka
Nyeri
Koimbi
Sagana
Thika
Migori
Bura
Hola
Garsen
Lamu
Moshi
Arusha
Kilifi
Old Town
Kwale
Mbulu
Babati
Kismaayo
Jamaame
Jilib
Your feet on the ground in Africa
NORTH
0 50 100 150 200
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com
and David Byrne - All rights reserved SEMS EXPLORATION / 2013-1st edition
Contribution of Paterne Moledje and Mining Atlas - www.mining-atlas.com
Graphic design: www.arcildesign.com
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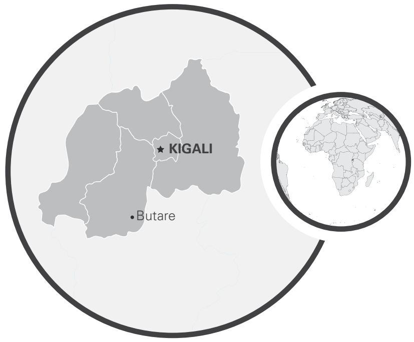
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
Geological boundary certain
Country Borders
Water area
Roads
Railway
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
SEMS EXPLORATION
THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

Rwanda

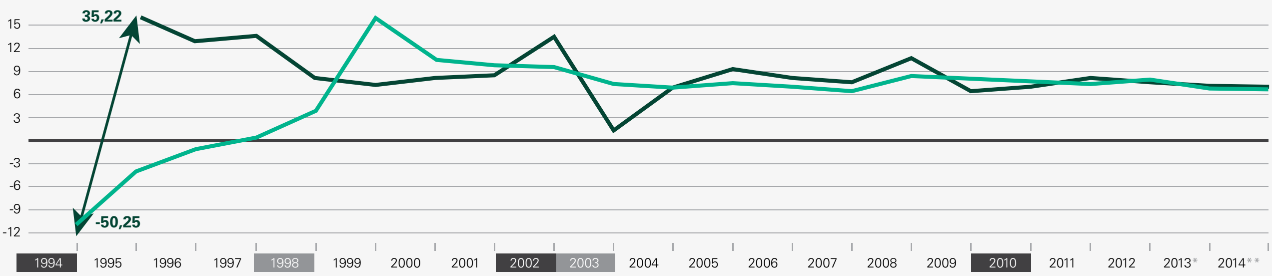
Rwanda is a former Belgian colony infamous for the ethnic violence and genocide of the 1990s. Fortunately, the country has managed to reinvent itself since then, becoming (in the eyes of many) the model of post-conflict reconstruction. It is now considered one of the easiest places to do business in Africa. Rwanda is a significant global producer of tantalum and also produced tin, niobium and small quantities of other minerals. A number of companies are exploring for gold in the country.



POPULATION 12,012,589 (July 2013 est)
LAND AREA 26,338 sq km
OFFICIAL LANGUAGE(S) Kinyarwanda, French, English
CAPITAL Kigali
CHIEF OF STATE President Paul Kagame
HEAD OF GOVERNMENT Prime Minister Pierre Damien Habumuremyi
GDP (PPP) $14.91 billion (2012 est)
GROWTH RATE 7.7% (2012 est)
GDP PER CAPITA $1,400 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 33.3%, industry: 13.9%, services: 52.9% (2012 est)
Exports: $5.942 billion (2012): tea, horticultural products, coffee, petroleum products, fish, cement
Imports: $1.414 billion (2012): foodstuffs, machinery and equipment, steel, petroleum products, cement and construction material
MAJOR TRADE PARTNERS Kenya, Uganda, Malaysia

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU, IMF



The deaths of the presidents of Rwanda and Burundi spark the Rwandan Genocide, causing up to 1 million deaths.

Rwandan forces take part in the Second Congo War, which brings them into conflict with Ugandan forces.

Rwandan Patriotic Front forces leave the Congo, although some Rwandan rebels remain until at least 2007.

The first election since the Rwandan Civil War (1990-1993) is won by Paul Kagame and the RPF.

Paul Kagame and the RPF win a second presidential election with 93% of the vote.

INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

	RWANDA	AFRICA	WORLD
Railway - km/10,000 km2	1784	18.2	76.2
Roads - km/1,000 km2	178.5	204	904
Electricity - kWh/capita (gross production + imports - exports - losses)	157	592	2933

% 25 50 75 100

BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	45	54	32
Index of Economic Freedom (177)	59	63	65
Global Competetiveness Report (148)	70	63	66

SELECTED DEPOSITS

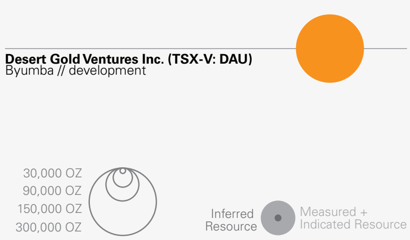
SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION

GOLD

Company/Operating Partner
Project // status

Primary Mineral

Desert Gold Ventures Inc. (TSX-V: DAU)
Byumba // development



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

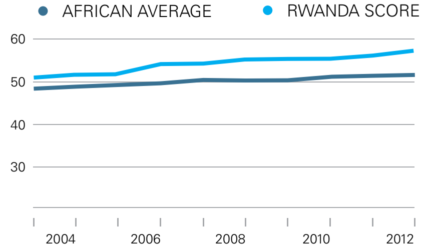
as of 2011
in mt unless otherwise stated

Columbite-tantalite	829
Tin	4,508
Gold**	100
Tungsten	950

**in carats ***in kilograms

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFLATION

SOURCE: WORLD BANK

2011 5.7%
2012 8.5%

MINING SECTOR CONTRIBUTION TO GDP

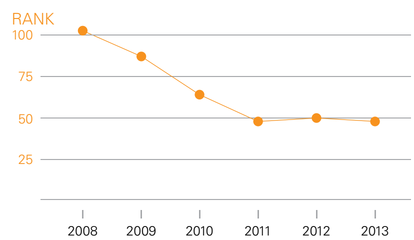
SOURCE: AFRICAN ECONOMIC OUTLOOK

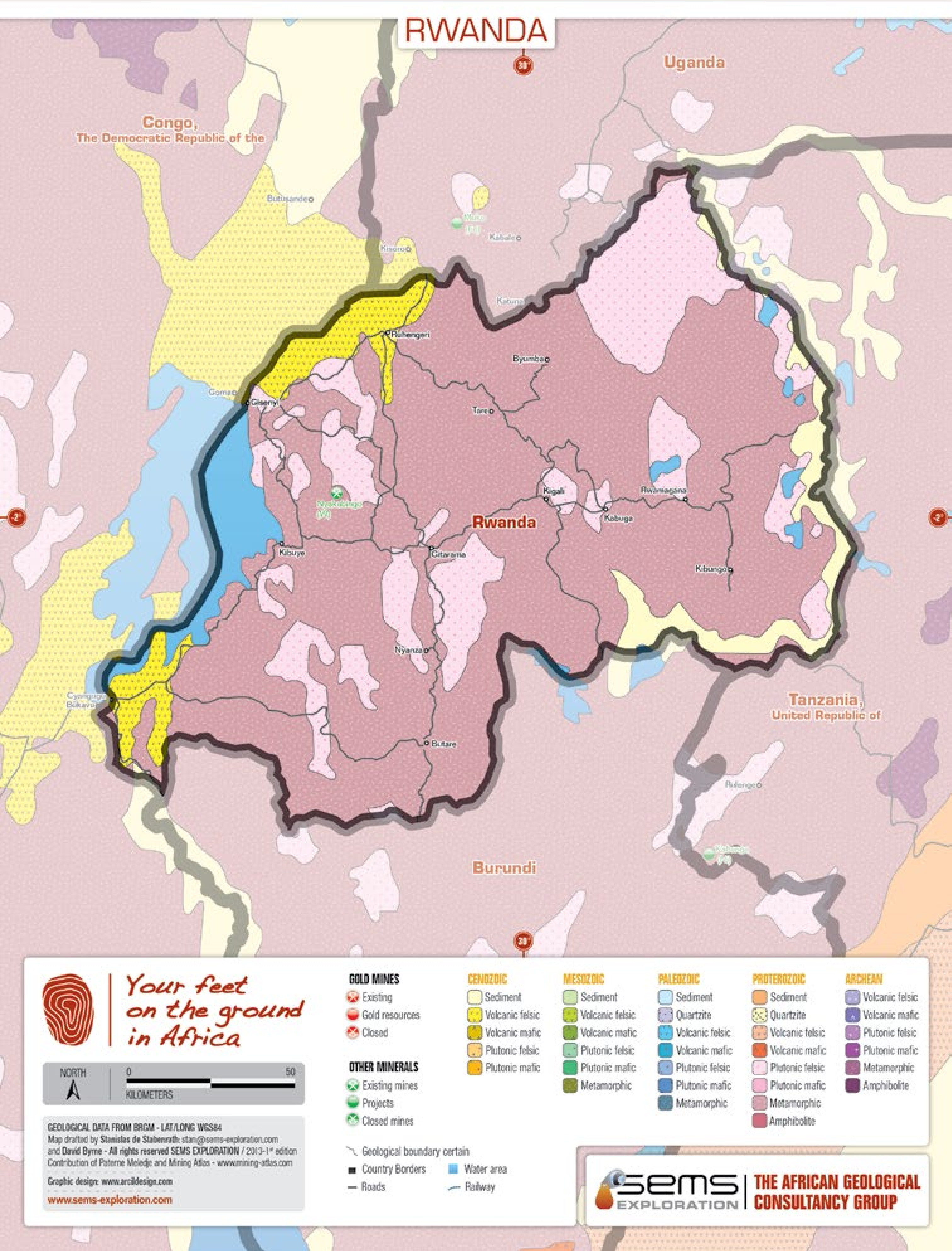
2007 0.1%
2011 0.1%

These values do not include artisanal mining. Though the mining sector remains small, it is one of Rwanda's most important generators of foreign revenues and has shown significant growth since 2011.

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL





RWANDA
Uganda
Congo,
The Democratic Republic of the
Butusande
Kisoro
Kabale
Katuna
Ruhengeri
Byumba
Goma
Gisenyi
Tare
Kigali
Rwamagana
Nyakabingo
Rwanda
Kabuga
Kibuye
Gitarama
Kibungo
Nyanza
Cyangugu
Bukavu
Tanzania,
United Republic of
Butare
Burundi
-2°
30°
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
Geological boundary certain
Country Borders
Water area
Roads
Railway
Your feet on the ground in Africa
NORTH
0
50
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com
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THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honorable Evode Imena

Minister of State in Charge of Mining, Ministry of Natural Resources
THE REPUBLIC OF RWANDA

What objectives has the government outlined to continue fostering the mining sector's development?
The post of Minister of State in Charge of Mining was created in February 2013 to ensure that Rwanda can benefit from its resource wealth and to help make mining one of the main pillars of the country's economy. We are charged with achieving two goals: increasing mineral production revenues and the second promoting a sustainable, formalized and standardized mining practice in Rwanda that is respectful of the environment.
In order to meet these goals, we have set out four objectives. The first of these is to establish the mineral potential of Rwanda; we need to clearly identify which minerals we have and what the reserves of those minerals are. The second objective is to raise awareness amongst the international community that Rwanda is a country of relative importance to the mining world, which we will do by attending conferences such as Africa Down Under and the Mining Indaba and also by engaging with and inviting investors to see the country. The third item on our list is to strengthen the regulatory framework in order to make it more attractive to investors and also to ensure that it is aligned with international best practices and Rwanda's best interests. Lastly, we need to strengthen the geological survey and make sure that it is a prepared entity capable of running exploration projects and monitoring operations in the mining sector.

What diversified mineral potential does Rwanda hold?
Rwanda's top exports since the 1930s have been tin and tungsten, with tantalum being added to this in recent years as demand from the electronics industry has risen. We have been focused on these commodities as they are the most easily mined, but we have also seen good indications of base metals such as copper, zinc and lead, as well as rare earth elements and gold. There are good gold deposits in the north of the country, with two companies having discovered up to 700,000 oz. This is not a large enough deposit to start a project, but all indications show that the target of 1,000,000 oz will soon be realized. The northern part of Rwanda features the continuation of the Twangiza-Namoya belt from the DRC which also holds good potential for gold.

Local content laws are an important part of any mining jurisdiction's regulatory framework. How are these viewed in Rwanda?
Currently, Rwanda is investing in fast-tracking mine development and in capacity building. We now have the Integrated Polytechnic Regional Centre – Kigali Campus (IPRC) where we are training mining engineers as fast as possible. We are sending young Rwandese to study geology and mining engineering abroad before returning to apply their skills here. Apart from the attendees of foreign universities and of IPRC – Kigali, we have just 44 people who have graduated in geology or engineering, and 80% of those 44 people are over the age of 60.
There is a real shortage of skilled labor here and to complement the IPRC, we have a program called the Strategic Capacity Building Initiative which we use to recruit experts. They come to Rwanda to work with their local counterparts and train them on the job. This helps increase the knowledge transfer into Rwanda, which is of the utmost importance. While we encourage the employment of locals at mines around the country, we also understand that overly stringent laws in this regard can prove to be a hindrance in the absence of qualified people.

Rwanda's mining law is, at present, under review. What major changes can we expect to see as it is rolled out?
The latest edition of the bills covering our sector's role is still in Parliament, but we do expect the changes made to be reflected in the granting of mining licenses. Previously, we had a small mining license, which gave rights for five years, and we had a more lengthy concession license granting mine rights for three decades. There was no middle ground in terms of exploration licenses and time frames, which is absolutely necessary at this stage of the game.
We will now be issuing an artisanal mining license for five years, and then there will be another license with a flexible duration to depend on the feasibility studies, recoverable resources and planned technology use. There will also be the formal introduction of a royalty tax on minerals: 4% for base metals and 6% for precious metals. It is the first of its kind in the country so that companies can give back to the government as they develop their projects. •

Rwanda is a new country on the African mining playing field, backed by a government with ambitious goals and a political will to put regulations in place to foster its development. The country is often dubbed in the media as the Singapore of Africa. The moniker, though histrionic, speaks to Rwanda's shrewd ability to put effective incentives into place to grow industry in spite of size and resource limitations.

Where Rwanda's mining sector lacks volume and capacity, Rwanda has made significant strides in implementing regulatory reform in an effort to woo international investors. Rwanda has annually earned a top spot amongst African countries on the World Bank's Ease of Doing Business rankings. Between the 2013 and 2014 rankings, Rwanda jumped ahead 22 spaces to reach the 32nd spot on the global list. Amongst African nations, in the past year Rwanda has gone from the fourth to second highest rated African nation after Mauritius. The country also boasts very low levels of corruption and was ranked as the least corrupt country in East Africa on Transparency International's 2013 Corruption Perceptions Index.

Rwanda's mineral sector plays a large role at home, even though its mineral production levels are slight on an international scale. Minerals rank as the second largest export earner in the Rwandan economy. In 2012, the sector contributed $136 million in export revenues, a culmination of a growth rate of 44% per annum since 2008, two years after the government began the privatization process for its mineral concessions. Five years later, the forecasted value of mineral exports for 2013 is set at $190 million.

The Rwandan government has identified mining as a high priority industry in the country's Vision 2020, and has turned a careful eye towards encouraging private sector development and expanding the country's mineral portfolio. The government has a set goal of reaching $400 million from the mineral revenues by 2017.

Currently producing tin, tungsten and coltan, Rwanda sits on the mineralized

Kibaran belt, which stretches into Tanzania, Uganda, Burundi, DRC and Angola. Rwanda ranks as the eighth largest producer of unsmelted tin in the world, and accounts for 1.5% of global tin ore production. Known for its high-quality tungsten, Rwanda is the world's fourth largest producer and contributes 2% to total global supply. A top producer of tantalum, Rwanda also ranks as the fifth largest producer of this mineral, accounting for about 12% of global production, according to the US Geological Survey.

Beyond these three chief commodities, gold exploration projects are underway and indications of iron ore, rare earth elements and industrial sands have been made. Rwanda's mining sector is largely artisanal, accounting over 80% of miners in the country. Large-scale, semi-mechanized operations are beginning to account for a heavier share in that number, as the sector has gradually privatized in the last decade.

Less than 10 years ago, all mining concessions were owned and run by the government. The privatization process, begun in 2006, followed several attempts to finance the country's mining activities since independence. As an independent country, Rwanda brought previously existing private mining companies under government control and operated projects in joint venture between the Ministry of Finance and two mining companies, Société des Mines d'Etain du Rwanda-Urundi (MINETAIN) and Société Minière de Muhina et de Kigali (SOMUKI). Faced with the challenges of ageing equipment and insufficient mining infrastructure, tin ore and tungsten production dropped off from its peak of 42.5% of export earnings to below 10%. Ultimately SOMUKI declared bankruptcy in 1985. The new era of privatized mining began in 2006 with the hopes that private investors would stimulate the lapsed geological potential of the country.

REGULATORY ENVIRONMENT

To strengthen the country's regulatory attractiveness, the government of Rwanda has pursued several key initiatives. In 2010, the government signed an agreement with the International Tin Research Institute (ITRI) to implement a traceability system for domestically produced tin, tantalum and tungsten. The mineral tagging and sealing scheme – the ITRI Tin Supply Chain Initiative (iTSCi) – went into effect in 2011 with the objective of meeting end user requirements set by the Dodd-Frank Wall Street Reform and Consumer Protection Act. Rwanda's adherence to the ITRI traceability system makes it the only country in East Africa to do so.

In a crucial upcoming piece of reform aimed at boosting the mining sector, the country's mining code is currently under

Towards to a More Transparent Sector

As the first country in Eastern Africa to implement such a mineral tagging program, Rwanda's iTSCi initiative is an example in the region for what works and what does not. Two years after the implementation of the tagging scheme, local companies are gritting their teeth as they accommodate high implementation costs in hopes of boosting the country's international marketability.

Bearing the brunt of the bureaucratic challenges, since April 2011 mineral traders have cooperated with iTSCi officials to ensure their suppliers are compliant. The stringent requirements have significantly impacted their activity levels.

"It is also in our best interest to improve the marketability of our minerals. When the law began to be enforced in April 2011, it made it difficult to maintain mineral volumes. This affected smelters as well because they could not buy from many traders. MSA has worked to ensure all of its sourcing is from traceable mines of Rwanda. We have found that our minerals can still be competitive with non-iTSCi minerals," explained Kayihura of MSA.

Since the implementation of iTSCi, Munsad Minerals no longer trades with DRC suppliers and has undertaken stringent measures to reach compliance, including the support of microcredit programs and social projects in the communities near their mining activities.

"The iTSCi program, and the government initiatives in general, are helping our sector to become a leading example in the region of modern and sustainable mining practices," said Munyarugerero of Munsad Minerals.

While Rwanda's mining sector is notable for its championing government, challenges persist for the small but dense country.

"The industry's aim is to reach $400 million in exports in the next four years. We still have the problem of power and even the problem of quantities, however the government is committed to getting more energy and our minister of mines is very active," said Kalima of Wolfram Mining and Processing and the Rwanda Mining Association.

"While the price of tin goes up and down, tungsten ore and tantalum have very promising price forecasts. The tungsten ore we produce in Rwanda has very high grades up to 70% and now that we have a mineral traceability system, Rwanda's products are more internationally competitive."

Provided Rwanda's attractive regulatory framework can woo foreign investment in the mining sector, technical expertise and much-needed capital will bring a new era to the revived industry.

"We are aiming to start sustainable mining operations in Kayonza by 2014. ITRI compliance can be challenging for small producers, but we are putting the necessary steps in place."

- Julius Muhizi, Managing Director, Real Brothers Mining Company

review. As a response to private sector requests, the edition of bills will allow for longer license periods and facilitate the acquisition of loans. Along with the new licensing scheme, however, the tax scheme is slated to change as well.

"In stimulating and attracting more investments in the mining sector, the government has found it strategic to review the mining code with a purpose of creating value addition to the sector through increasing mineral output, creating more jobs and enhancing the export capacity for Rwandan minerals abroad," said Vivian Kayitesi, head of the Investment Promotion and Implementation Department at the Rwanda Development Board (RDB).

The RDB, created in 2008 with the aim of fast tracking Rwanda's economic development by enabling private sector growth, is working to streamline the mining investment process. Helping to administer the fiscal and non-fiscal incentives available to investors, such as acquiring work permits and visas under RDB's One Stop Centre, the board also works to provide sector specific information and to assist in the negotiation of strategic investment projects.

The revised mining code will allow for artisanal mining licenses issued for five years and licenses with flexible duration. In hopes of discouraging prospection, the new law will also change exploration license requirements to ensure holders are technically and financially robust companies and cooperatives. The most important change will be an increase in the tax regime, now raised to a royalty of 4% on base metals and 6% for precious metals.

In line with their open door policy, measures of the new mining law will also respond to private sector frustrations regarding the length and time of the licensing process. "This change is in response to the difficulty that mining companies experience in accessing loans and financing for their projects," said Kayitesi.

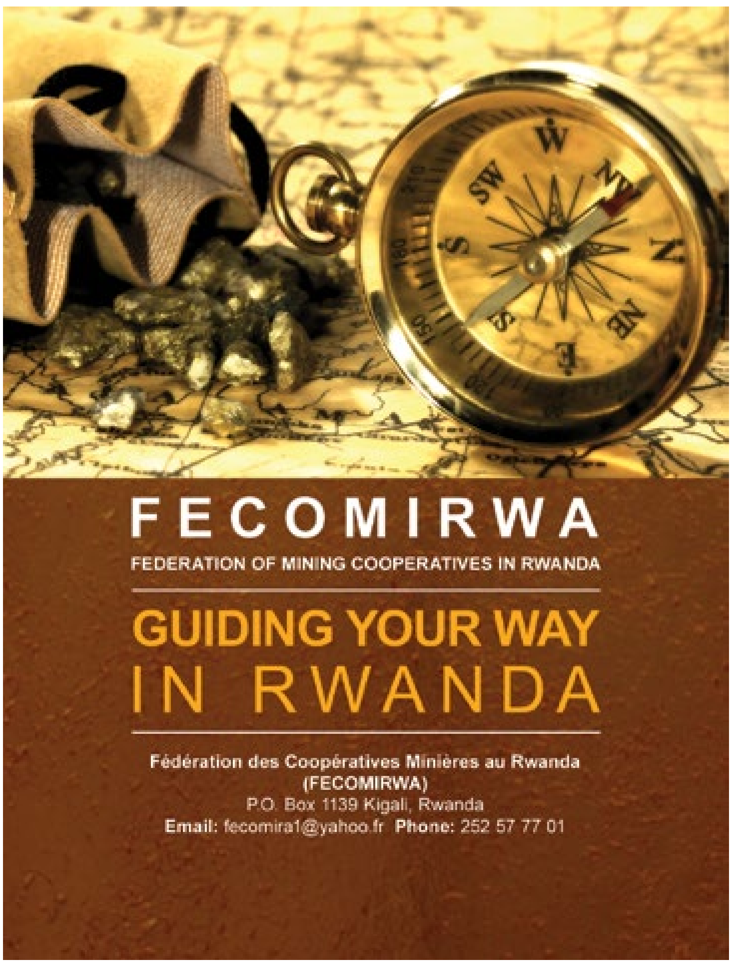
The private sector has urged the government to ensure that with the reforms their stated goals of reaching $400 million in mineral exports by 2017 and an increase in production from 8,000 mt to 18,000 mt can be met. "With maximum quantities, both the companies and government are able to generate more money. The difficulty is determining how the government can attract investors in the mining sector when it has at the same time to raise the applicable taxes rates," said Eric Cyaga, a partner at the local business law firm K-Solutions & Partners.

PRODUCTION AND EXPLORATION

TANTALUM

By far the smallest subsector the industry, tantalum production accounted for roughly 3.7% of Rwanda's mineral production in 2011. Tantalum production and exporting are handled by a range of small mining cooperatives and several mineral traders. Pyramides Ltd, one such mineral trader, has emerged as a sector leader in the mineral. Pyramides, after starting as a trader in 2003, diversified into mining tantalite oxide on four concessions, bringing the first automated tantalite mine to the country. After signing a technology transfer agreement with Ningxia Non-Ferrous Metals, the world's third largest tantalite refinery, it has stronger prospects to produced high quality concentrate: currently its grade is 45% to 50% Ta_2O_5.

Munsad Minerals, which mines tantalum, tin and tungsten ores across a wide range of concessions throughout the country, moved into tantalum in 2006. In addition to engaging in trading for smaller producers, Munsad Minerals has also invested in a treatment facility for hermetic separation of its ore. With the facility set to come online in 2014, Munsad has a production goal of 20 mt per month of tantalum. "With our plans to increase productivity at our mining operations, Munsad Minerals will become a stronger leader in Rwanda's mining industry. We are very active with the newly formed Rwanda Mining Association, and we take great care with our operations to make sure the environment is protected and we are recycling our resources to the best of our abilities," said Damien Munyarugerero, general manager of Munsad Minerals and first vice president of the Rwanda Mining Association.



TUNGSTEN

Tungsten, which has a much longer history in Rwanda, has benefited from a renewed interest due to rising prices in the world market. Wolfram Mining and Processing, one of Rwanda's largest mining companies, acquired a former government tungsten mine, Gifurwe, in 2006. Extensive rehabilitation work was required to bring the mine back into operation. "All of the infrastructure was destroyed and had to be rebuilt, so over the course of a year we built houses, brought in electricity and water, and created roads. The next year, Wolfram Mining and Processing started up its operations with 200 people, producing between 1.5 mt and 3 mt per month. Today we have over 1,000 people and we are producing 12 mt of high grade tungsten ore a month," said Jean Malic Kalima, regional director of Wolfram Mining and Processing and president of the Rwanda Mining Association.

In 2008, Wolfram Mining and Processing acquired Rwinkwavu from the government, the second largest mine in Rwanda after TINCO Investments Ltd's Rutongo mine. After extensive infrastructure rehabilitation, it is now a viable mine. "We have a plant working 24 hours with 970 people that has gone from producing 2 mt per month of tin concentrates to 21 mt," said Kalima.

In line with government initiatives to increase processing within the country, Wolfram Mining and Processing has begun a treatment plant as a pilot project and is building a larger plant by the end of 2013.

Rwanda Allied Partners, a metal trading company, also moved into mining tungsten in 2005. With its Kibuye Concession coming into operation in 2009, the company has been focused on introducing new mining methods to reach an annual export volume of 900 mt to 1,000 mt.

Ets Kalinda Valence, a small producer and trader, has been active in the sector since 1992 and has exported cassiterite from the beginning of its operations. As of 2012, Kalinda Valence moved into tungsten ore mining and trading, when international prices became more attractive for the mineral.

"In the past two years, we have seen many more opportunities for us in mining wolframite ore, which we are exporting as concentrate for tungsten. Among our concessions, our tungsten operations are providing more and more attractive profit margins as the price has risen. We are now looking for international partners with technical expertise to help us improve our processing of the material," said Kalinda Valence, director of the company.

A new player in the tungsten space, New Bugarama Mining Company Ltd, incorporated in 2009, is revitalizing a pre-independence mine for the mineral. Currently, New Bugarama has a tungsten-mining site of 700 workers and is aiming to increase production from 10 mt to 15 mt per month up to 20 mt, in part through a $3 million in investment in equipment over the next three years.

TIN

Rwanda's greatest mineral export by far is tin concentrate, coming at roughly 21% of exports in 2011. Rutungo mines, the country's Rwanda's largest mining operation, has produced tin concentrates since the 1930s. Since the site was privatized from the government in 2008 by TINCO Investments Limited, the private investors have undertaken an intensive formalization of the site's exploitation. When TINCO moved onto the property, there were roughly 300 artisanal miners producing 3 mt to 5 mt per month of cassiterite concentrate. Faced with a legacy of unsafe underground workings, an immediate clean-up operation took place.

"Today we have close to 5,000 people working artisanally on Rutongo, producing up to 100 mt per month. Rutongo's long-term 30-year license will allow new development to take place where semi-mechanized mining will be introduced to increase production substantially and make Rutongo a world-class industrialized, sustainable, environmentally friendly and safe mine, which will still be labour intensive in some areas even after the transfer of skills. Labour-intensive industrial-scale mining methods are planned," said Martin Ka-

INTERVIEW WITH

Vivian Kayitesi

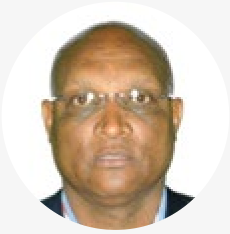
Head of the Investment Promotion and Implementation Department
RWANDA DEVELOPMENT BOARD

With the current mining code under review in Parliament, what positives changes can we expect to see for investment incentives?

In stimulating and attracting more investments in the mining sector, the government has found it strategic to review the mining code with a purpose of creating value addition to the sector through increasing mineral output, creating more jobs and enhancing the export capacity for Rwandan minerals abroad. Among other things to be changed in the new mining law is the length and time involved in acquiring mining licenses. This change is in response to the difficulty that mining companies experience in accessing loans and financing for their projects. Furthermore, when the new law comes into effect, a number of licenses, such as prospection licenses, will be scrapped in order to establish exploration licenses in accordance with international standards. The requirements to be granted a license will change to aim at having technically and financially robust companies and cooperatives in the sector.

Can you provide us with an update on the development of the government's two mining concessions at Bisesero and Kigali North?

The government of Rwanda through the Ministry of Natural Resources issued out a tender in May calling for request for pre-qualification (RFQ) from suitably qualified companies interested in the development of the Bisesero mining concession. Based on the technical and financial ability for the companies to develop this concession, the Ministry is in the process of reviewing the submitted proposal and will be coming up with one final list of successful bidders before the year ends. As for the Kigali North Concession, the government is looking for small cooperatives that would take charge and operate this concession. The Bisesero concession would be a much bigger project so they are targeting both local and international companies. Given the lack of capacity for local operations, we are also encouraging joint ventures with foreign investors, who would bring technology and capital to partner and work with local companies. •



"The industry's aim is to reach $400 million in exports in the next four years. While the price of tin goes up and down, other minerals like wolframite and tantalum have very promising price forecasts."

- Jean Malic Kalima, President, Rwanda Mining Association; Regional Director, Wolfram Mining and Processing hanovitz, executive director of TINCO.

As the owner of the industry's largest operation, Rutongo is leading the way to mechanization. "We are presently in the planning stages of getting quotes for modern processing plants at certain sites feeding into our main process plant where we have roads, rail lines and full infrastructure being built in preparation for stepping up production to industrial scale," said Kahanovitz.

In addition to Rutongo, TINCO also owns and operates the Nyakabingo underground tungsten mine to the north west of Kigali.

Also aiming for more mechanized tin concentrate production, Gatumba Mining Concessions is at work exploiting its high reserves of cassiterite in the Western Province. High-volume production has yet to commence as the company is currently focused on putting appropriate mining equipment in place.

Access to equipment in landlocked Rwanda can be a challenge for many mining developers, not just financially but also logistically. Real Brothers Mining Company, which has just finished exploration of its cassiterite concession, is looking to start production. Located in Kayonza district, Eastern Province, Real Brothers carried out five years of exploration with the assistance of government maps of the area, before moving into its current phase of financing.

The company is looking outside the country for help with the necessary capital. "With the help of an international investor to bring in equipment, we are aiming to start sustainable mining operations in Kayonza by 2014," said Julius Muhizi, managing director of Real Brothers Mining Company.

BUILDING CAPACITY AMONG SMALL-SCALE MINERS

As 80% of the mining sector is made up of artisanal miners, incorporating these workers and standardizing their mining practices is a key hurdle for the development of the sector. To this end, FECOMIRWA, a federation for mining cooperatives, was established to facilitate small-scale mining activities in the country. For its 20 member associations of artisanal miners, FECOMRIWA assists with accessing finance, tax regulations and technical expertise. Over and above, FECOMIRWA acts to curtail the mineral smuggling that runs rampant in the region. Since the implementation of iTSCi in 2011, FECOMRIWA's annual rates of production have almost doubled, from 270,271 kg in 2010 to 407,267 kg in 2011. "Since the iTSCi system has started, our member associations have benefited from a decrease in fraud and an increase in production, which in turn gives them higher commissions," explained Augustin Bida, executive secretary of FECOMIRWA. "Anti-fraud police are now working to take hold of any untagged minerals. Tagged minerals give our miners a guaranteed good price, which they are happy with."

As the largest proportion of permit holders are small-scale miners, the government is keen to support the oversight of their activities that FECOMIRWA can provide. As an alternative to the cooperative association model, some investors like New Bugarama have taken on initiatives to organize local workers into small enterprises.

"We have trained local people to organize themselves into small companies in such a way that New Bugarama can be sure that they will be paying social security funds and taxes. K-Solutions & Partners, as the company's legal adviser, is looking at the best structures for these smaller companies to manage themselves. If there is any problem we are responsible, so we need to know who is there and what they are doing," said Julien Kavaruganda, partner at K-Solutions & Partners.

Beyond meeting legal and tax requirements, small-scale miners in Rwanda are held back by a lack of support from financial institutions. Unable to use their concessions as collateral to access bank loans and very much in need of modern technology, small-scale mining companies are seeking avenues for pre-financing from local mineral traders and the rare international company looking to secure its supply.

Mineral traders in particular have emerged as a crucial source of support for Rwanda's small producers. Assisting with financing and equipment acquisition, traders are becoming increasingly involved with their suppliers, to the point that many are also engaging in their own mining activities. Minerals Supply Africa Ltd (MSA), a mineral trading company started in 2008, provides pre-financing and creates partnerships with miners with advances and reimbursements that best meet their objectives.

"MSA, as a mineral trader, is a link between the miners and the international market, including smelters and end users," said Fabrice Kayihura, general manager of MSA. "Mining requires huge investment and the financial institutions of Rwanda are not willing to invest in small mining companies. As a trading company in Rwanda, we have a responsibility to ensure that the mining sector in Rwanda is improved."

To date, MSA has invested over $5 million in financing mining cooperatives and companies in Rwanda. "We do not charge interest with our pre-financing, we just sign an exclusivity of supply

"Munsad Minerals is very active with the newly formed Rwanda Mining Association, and we take great care with our operations to make sure the environment is protected and we are recycling our resources."

- Damien Munyarugerero, General Manager, Munsad Minerals & First Vice President, Rwanda Mining Association agreements. We make sure that we know our suppliers and that they comply with the requirements of the mining policy," said Kayihura.

As traders have become more involved in the sector's value chain, it has been a natural step to move into becoming concession holders. Following in the footsteps of companies like Rwanda Allied Partners, MSA is considering a mining project joint venture. With the capacity to bring in geologists and mining experts, traders have access to better tools and international expertise. Together with small-scale mining, they are helping to bring sustainable mining operations to Rwanda.

"MSA's first objective is to be the leader in the Eastern and Central African regions in dealing with minerals. We have to secure our sources of material, which is why we plan to go into a mining joint venture. This project will ensure us 50% of our supplies," said Kayihura.

For its part, the government is also working to stimulate more skills transfer by bringing in international investors. Among its portfolio of state-owned concessions, the government has called for development bids on a series of projects. The Bisesero concession is a high-volume cassiterite project open to international investors, while the Kigali North Concession cassiterite concession has been earmarked for development as an exemplary mine that can be used to train small-scale miners and technical students.

"The Bisesero concession would be a much bigger project so the government is targeting both local and international companies. Given the lack of capacity for local operations, we are also encouraging joint ventures with foreign investors, who would bring technology and capital to partner and work with local companies As for the Kigali North Concession, the government is looking for small cooperatives that would take charge and operate this concession," said Kayitesi of RDB.

With over 5,000 workers at its Rutongo mines, TINCO has implemented an in-house mine training centre to further develop the local talent pool. "This is a first in Rwanda, where everyone is trained in all aspects of mining theory coupled directly to hands-on training at the mine. This will assist in facilitating the transfer of skills and help develop the local workforce which, in times to come, will be self-sufficient in managing and developing mines and conducting mining exploration with limited outside help, no more than in any other mining community worldwide," said Kahanovitz of TINCO. •

Somaliland

Having declared independence from Somalia in 1991, and having a British colonial history that stands at odds with the Italian past of the rest of Somalia, the Republic of Somaliland's status as a separate state is well established, even if not yet formally recognized by the international community. It has been governing its own affairs for over 20 years and in that time established itself as a stable alternative to its larger southern neighbor, which has in the same time period been plagued by a civil war and lack of government that is only recently beginning to change.

This is not to say that Somaliland is a risk-free choice for investors. Hampered by its lack of formal recognition as a sovereign state, which prevents aid flows and financial support from global lenders such as the World Bank, Somaliland remains poor and undeveloped in many areas. The diaspora continue to provide the overwhelming bulk of new business capital and unemployment within the country stood at around 80% in 2012. The government cannot be absolved from blame for this situation: its regulatory framework is incomplete and the lack of reliable data available on the country also means that, for most investors, it remains an unknown quantity.

Yet Somaliland also suffers, arguably unfairly, from negative perceptions of Somalia, which despite the limited effects of Somalia's troubles on Somaliland still has a negative influence on investors. Many of Somalia's sectors remains severely underdeveloped despite their potential: the mining sector being a prime example of this. There are confirmed (although undefined) deposits of gypsum, lime, mica, quartz, lignite coal, lead, gold and sulphur, with further potential for rare earth elements, iron ore, uranium and copper.

We have chosen to give a special mention to Somaliland in this publication for two reasons. Firstly, the almost complete lack of commercial exploration in the jurisdiction means that it remains one of the last truly untouched frontiers; made all the more exciting because it sits on the Nubian trend, known to host rich deposits elsewhere along its length. Secondly, in our talks with government officials of Somaliland we were impressed with the awareness of and honesty about Somaliland's current challenges, and the plans in place to rectify them, such as the current review of the mining code.

POPULATION 3,500,000 (July 2013 est)
LAND AREA 137,600 sq km
OFFICIAL LANGUAGE(S) Somali, Arabic
CAPITAL Hargeisa
CHIEF OF STATE President Ahmed Mahamoud Silanyo
HEAD OF GOVERNMENT President Ahmed Mahamoud Silanyo

GDP (PPP) $1.5 billion (2013 est)
GROWTH RATE 4.5% (2012 est)
GDP PER CAPITA $429 (2013 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 65%, industry: 10%, services: 25% (2013 est)
Exports: Livestock
Imports: Foodstuff, Remittances
MAJOR TRADE PARTNERS Ethiopia, UAE, Yemen, Saudi Arabia

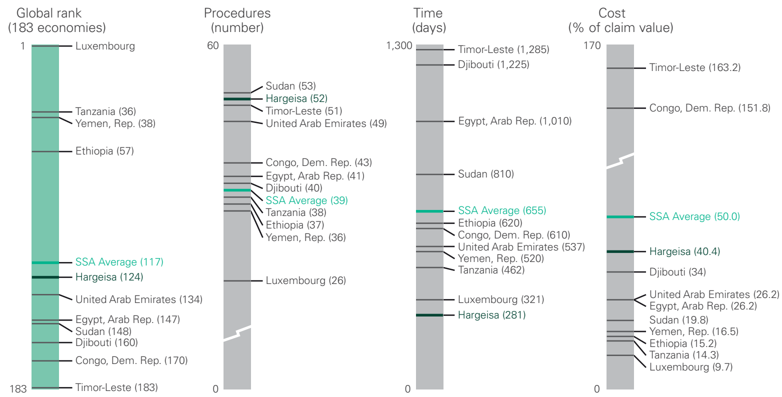
DOING BUSINESS RANK 2012

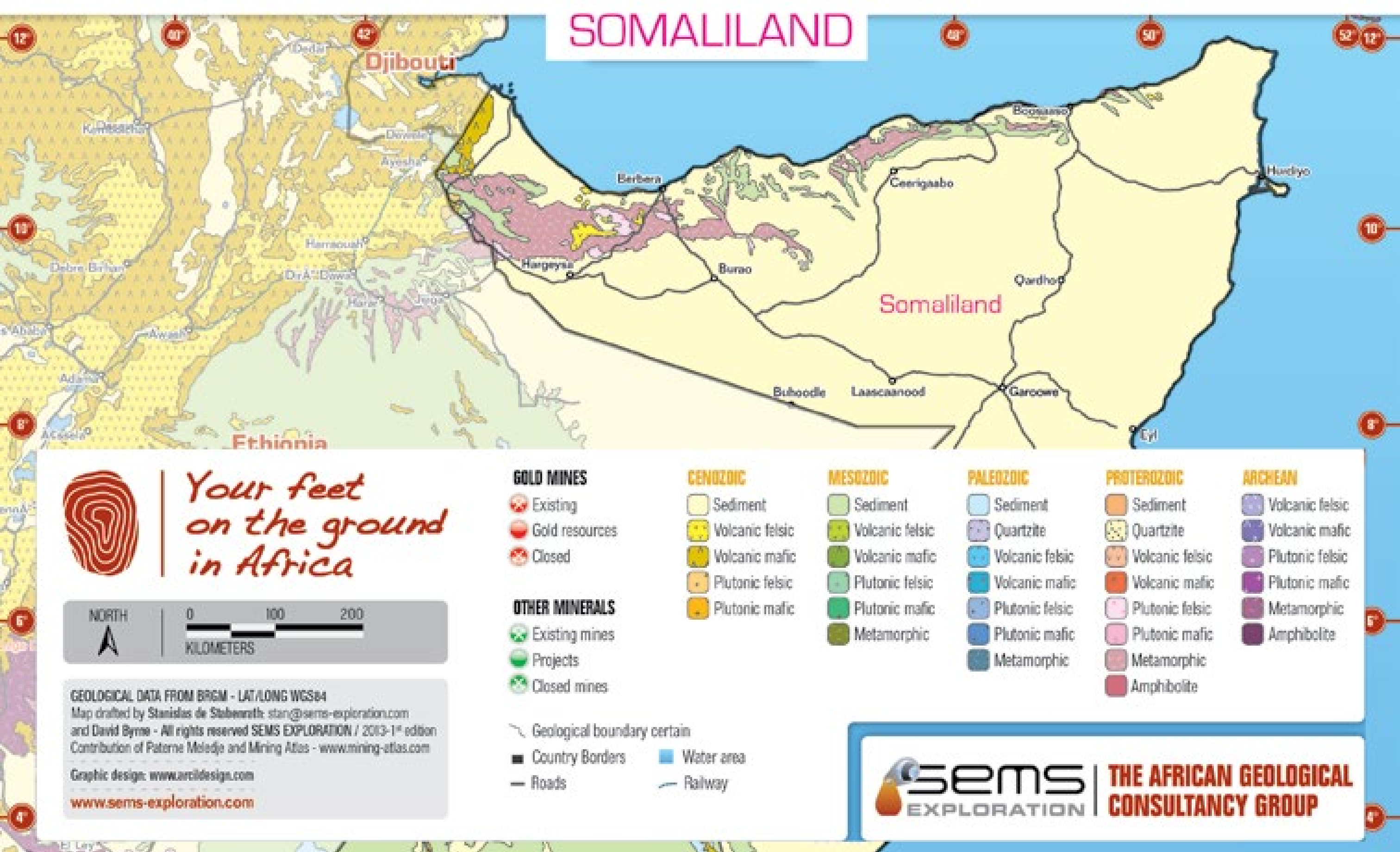
SOURCE: WORLD BANK SPECIAL REPORT ON HARGEISA 2012

Ease of Doing Business	174
Starting a Business	175
Construction Permits	86
Getting Electricity	84
Registering Property	79
Trading Across Borders	127
Protecting Investors	181
Getting Credit	184

ENFORCING CONTRACTS

SOURCE: WORLD BANK SPECIAL REPORT ON HARGEISA 2012





INTERVIEW WITH

The Honorable Hussein Abdi Dualeh

Minister of Energy & Minerals
REPUBLIC OF SOMALILAND

Could you provide a brief overview of the Somaliland's geological potential?
The geological environment is very favorable to the discovery of many types of metallic minerals. Most of the base metals in the Mozambique belt which we are a part of are present in Somaliland and we have abundance deposits of iron ore, coal and manganese as well as a slew of rare earth metals including colombite-tantalite which are currently being mined artisanally. There is also a good potential in Somaliland for precious metals such as gold, platinum and silver.

Can you provide us a brief overview of the regulatory environment that mining companies can expect when coming to Somaliland?
Somaliland's new mining code is currently under review and we expect its implementation in 2014. We can assure investors that our new mining code is very competitive with other East African countries and that our fiscal terms such royalty rates and taxes will be competitive or even better than other mining destinations. We are willing to sit down with any viable potential investor to discuss the terms of a win-win agreement.

The sovereignty of Somaliland is not yet recognized by. As Somalia's government grows stronger, are there worries for future established mining projects in disputed regions?
Disputes over resources between Somalia and Somaliland should not be a concern to potential investors. Somaliland received its independence in June 1960 from Britain and its boundaries are demarcated by at least three international treaties that date as far back as the 1800s. We have full control of our territory and our borders and we are not in conflict with our neighbors. Our colonial-era borders are beyond dispute.
The international oil and gas companies that are operating in Somaliland that have signed licenses with us gives us confidence that we are a safe investment bet. Some of these companies are publicly traded and answer to boards and shareholders and have access to good legal advice. In coming here, they concluded that the risk-reward ratio to invest in Somaliland and sink large sums of money is acceptable. I am confident any shrewd mining company that looks at out mineral assets and evaluate the above ground risks here will come to the same conclusion. The separation of Somaliland from Somalia in 1991 when it regained its independence after an unsuccessful union is a forgone conclusion. It is a fait accompli. The world will eventually catch up with the realities on the ground and recognize Somaliland as the 55th State in Africa. We are certain of that.

What initiatives are in place to improve nation's infrastructure?
Somaliland's Berbera port is a very old port but has the potential to become world-class port and we are currently in negotiations with a foreign company that plans to invest nearly $400 million to improve it. The country's long coastline is dotted with natural harbors and pristine beaches and is ripe for development. It is amazing how the mineralized zones in Somaliland actually hug our coastline, which makes it logistically convenient to ship bulk mineral ores once exploited to world markets. The issue of piracy in the Gulf of Aden has almost disappeared because of the major interventions by world powers to protect international maritime fleets. We are unaware of a single piracy incident that occurred in waters in 2013.
Inland infrastructure, specifically electrification does remain a concern, but the good thing is we do have significant mineral coal deposits that can easily be exploited and used for power generation for the mining industry. We also have one of the highest wind speeds in the entire continent and of course year round sun which can be harnessed as well to generate significant amounts of power for mining industry and domestic use.

Looking into the future, where do you expect to see Somaliland's mining industry in five years time?
We would like to invite and welcome mining companies to come to Somaliland. Somaliland has exploitable iron ore, coal, manganese, heavy mineral sands and rear earths among other minerals that are ready to exploited, all not far from the deep port of Berbera. In five years from now we would like to be a major mining destination in East Africa and a major exporter of industrial minerals. We also have a very high potential for hydrocarbons and we are confident we will have a commercial oil discovery within the next two years. With our under-explored hard minerals potential, this is a country that a small aggressive mining company can come in at the ground floor and grow with us and strike it big. •

Mines to Market

Export Infrastructure for East Africa’s Landlocked Nations

Between them, the coastal states of Kenya, Tanzania and Mozambique border on nine of Africa’s 16 landlocked countries. With the external trade of so many states concentrated through so few, this littoral stretch has long represented a concentration of culture and economic activity, clearly evident in what is known as the Swahili Coast. With these economies now showing near-universal growth, and East Africa representing the most natural shipping gateway to the mineral-hungry Asian markets, competition between its ports is intensifying.

East Africa’s ports infrastructure is a fraction of what it could be. The 15 states of the Economic Community of West African States (ECOWAS) are home to six ports capable of handling over 300,000 twenty-foot containers (TEU) per year. The five coastal countries stretching from Djibouti to Mozambique and all the landlocked countries they could potentially serve are home to just three. “When it comes to mining for all of the land-locked countries, the ports are the biggest bottleneck,” said Deanne De Vries, vice president for Africa at Agility Logistics.

Yet the past few years have seen the announcement of transportation infrastructure investments that overshadow those of any other global region. $17 billion of transportation projects are in the pipeline in Mozambique. Kenya’s Lamu Port-South Sudan-Ethiopia Transport (LAPSSET) corridor is forecast to cost $25.5 billion, in addition to upgrades at Mombasa Port and a $13 billion regional railway project. Tanzania has proposed ports and transport corridors representing investments of over $40 billion, in addition to upgrades at Dar es Salaam Port and elsewhere.

These investments are good news for companies operating in the region: especially the mining sector, in which the viability of a mine can often depend on its export routes. Yet they are also leading to a shift in regional trade routes that companies should be aware of. With South Africa, home to the continent’s largest and busiest port Durban, anchoring the southern end of Africa’s eastern seaboard Kenya, Tanzania and Mozambique are looking to increase market share from their western and southern neighbours, bring them into competition with each other.

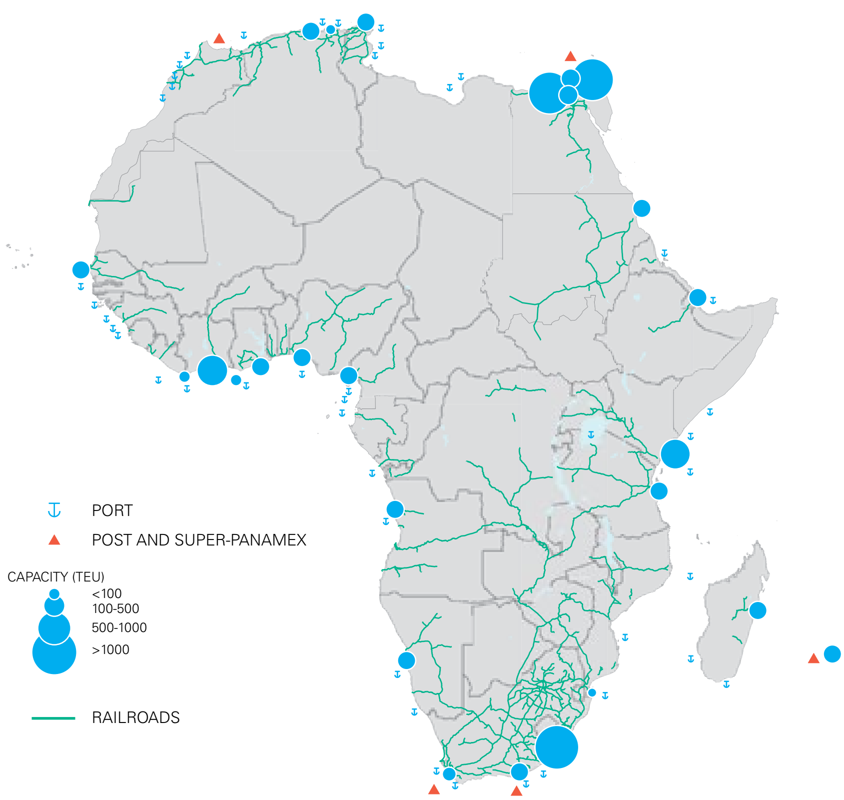
MOZAMBIQUE SEEKS BOTSWANA’S COAL

In Mozambique the government has invited bids for a $2 billion 525 km railway that will link the coal fields of the Moatize Basin to a new port at Macuse and announced plans for a new $7 billion deepwater port at Technobanine. Expansion work is also underway in the ports of Maputo, Beira and Nacala, the three largest of Mozambique’s seven main seaports.

In addition to increasing physical infrastructure, strong efforts are being made

AFRICAN PORTS AND RAILWAYS

SOURCE: AFRICAN DEVELOPMENT BANK, VARIOUS



to increase efficiency. In partnership with its port operators, Mozambique has implemented Janela Único Electrónica (JUE), an online, electronic port processing system. "The establishment of the JUE has lead to at least a 50% improvement in efficiency at the ports. The system as a whole has now stabilised, it increases the speed which documentation is finished therefore speeding up the whole system. All three major ports in Mozambique can now be considered efficient and much credit should go to the operators DP World, MPDC, Cornelder and Portos do Norte. However, since the recent unrest companies have been reluctant to transport goods by road and we have seen some backlog at the ports as a result. Particularly in the case of Beira, which acts as the transit port for Zambia, Malawi, Zimbabwe and, to a lesser extent, Botswana. In general the ports system in Mozambique has improved vastly over the past year," explained Karen de Almeida, general manager – finance and administration for UTi.

Mozambique has much work to do before its infrastructure is global best practice standards. Container dwell time at its ports still average far higher than those of its northern peers; let alone South Africa. Upgrades on the Sena line, connecting the Tete province to the Beira seaport, will increase capacity from 3 million mt/y to 6.5 million mt/y, yet this more-than-doubling still falls well below the total capacity of the Tete province, which at maturity is estimated will reach 100 million mt/y. The African Union, in a study done for the Programme for Infrastructure Development in Africa, estimated that even with currently planned port and terminal expansion, Mozambique will still suffer from short-term port container capacity gaps by 2020.

These worries have not stopped Mozambique seeking to serve as the trade route for their neighbouring countries in the region. Its Nacala Railroad, being expanded by Vale, connects to the Central East African Railway of Malawi. The Beira Railroad connects to Harare in Zimbabwe and the Maputo Railroad connects to South Africa, Zimbabwe and Swaziland.

One of the largest competitions being played out at the moment is for the coal of Botswana. In August the Mozambican Minister of Mineral Resources invited his Batswana counterpart and the Batswana Minister of Transport and Communications to discuss the export of coal and acquisition of fuel through Mozambique. "Evaluations are currently being made to decide if existing railway lines between Mozambique and Botswana should be refurbished, which would better connect the country to the ports of Maputo and Matola," explains the Honourable Onkokame Kitso Mokaila, Ministry of Minerals, Energy and Water Resources of the Republic of Botswana.

Yet Walvis Bay of Namibia is also hoping to secure Botswana trade, as well as that of other landlocked countries, and can at the moment boast shorter transit times. "As a relatively new port, we cannot compete on volumes with Durban at this stage but we can reduce the cost of doing business in southern Africa. Walvis Bay has five competitive advantages: Namibia is safe, it is secure, is it easy to do business in, our transit times are much better than the rest of southern Africa, and we are efficient along the complete corridor" suggest Johny Smith, CEO of the Walvis Bay Corridor Group. "Namibia has a coastline of 1,500 km and Walvis Bay is very strategically located. Walvis Bay can cover southern Angola, Zambia, southern Democratic Republic of the Congo (DRC), Zimbabwe, Botswana, and also parts of South Africa."

While the need to support its own mining industry will restrict, though not stop, Mozambique's regional transport corridor ambitions in the medium-term, they will nonetheless also restrict any attempt by Tanzania to increase its regional influence southward. Like Mozambique, Tanzania is not free from port problems. "There are long delays at the Port of Dar es Salaam, which we know the authorities are working hard to rectify. In the meantime Minesite Tanzania is using the Port of Mombasa to ensure zero loss of production and downtime for our end users," said Damien Valente, country manager for Minesite Tanzania, a mining service provider based out gold-mining hotbed Mwanza.

TANZANIA COMPETES FOR EAC TRADE

Tanzania is, however, more advanced in its development process than Mozambique. With 11 deep-water berths, Dar es Salaam port is able to accommodate 95% of Tanzania's international trade, as well as trade from landlocked neighbours such as Rwanda, Uganda and DRC. It may lack the geographical advantage of Mozambique when it comes to countries such as Malawi or Zimbabwe, buts its average container dwell time is far shorter and its capacity much higher: Dar es Salaam handles roughly 40% more container traffic than all of Mozambique's ports combined.

Increasingly, Dar es Salaam is claiming a larger share of East African Community (EAC) trade flows from Mombasa. Though admittedly starting from a lower base, traffic growth rates have been faster at Dar es Salaam than Mombasa over the past few years and it now handles the majority of transit traffic from Rwanda and Burundi. To maintain growth rates Tanzania is looking to new markets: predominantly in traditionally Kenyan domains rather than further south. Preferential rates and free storage periods have been offered to Ugandan exporters at Dar es Salaam. A $10 billion investment in a new deepwater port at Bagamoyo, north of Dar es Salaam and scheduled for completion in 2017, includes a railway link to the Central Railway, linking to Uganda. Another proposed project, the $32.8 billion Mwambani Economic Corridor, is at a far early stage of discussions, yet with a new deepwater port at Tanga less than 200 km from Mombasa and a standard-gauge railway through Uganda and the DRC, it potential poses an even greater threat to Mombasa's claim on Ugandan trade. "Uganda being a landlocked country, everything starts


UNLOADING THE VESSEL, PORT OF MAPUTO - COURTESY OF UTI

in Mombasa or Dar es Salaam. Uganda is a natural hub into South Sudan, Eastern DRC, Rwanda and Burundi. South Sudan has been seeing a lot of growth since its independence, and 60% to 80% of what goes into South Sudan comes through Uganda," said De Vries of Agility Logistics, emphasising the importance of the country.

The key to success in Tanzania's attempts to surpass Kenya as the gateway to the EAC, however, is just as dependent on its inland infrastructure than on its new or improved ports. Roads and rail are essential to the continued development of the region's nascent mining sector, with the mine-to-port portion of transportation costs forming a higher percentage of total mine-to-market transportation costs than most other places in the world. With these new rail investments, combined with road networks along the Central Corridor now being 86% paved, the physical infrastructure of Tanzania is rapidly improving. Yet bureaucracy threatens to undo this good work. "The road network in Tanzania is very good, with tarmac nearly everywhere we need to go. However, TANROADS, the Tanzanian road agency, is a big concern for all of the mines. It has imposed new gross vehicle weight limit on the roads, which means, for example, that much of bigger equipment such as our CAT 988H loaders and Liebherr LTM1090 mobile crane are too heavy to move even on specially modified trailers," said Valente of Minesite.

Everybody, Mombasa and Dar es Salaam included, would benefit from the streamlining of regulations and import duties that would hopefully come from increased integration of the EAC. For mineral producers and traders in landlocked countries such as Rwanda, the lack of promised integration, which results in increased checkpoints and tariff barriers, is significantly impacting their bottom lines. "Sending our products to the market can be a lengthy and expensive process. We are hoping that the East Africa integration program will improve these processes and integrate transportation in the region. We can use either the Port of Dar es Salaam or the Port of Mombasa; however they both experience capacity and security issues," said Fabrice Kayihura, general manager of the Rwanda-based mineral trading company Minerals Supply Africa Limited.

KENYA LOOKS TO SOUTHERN MARKETS

Kenya is not giving up the fight for the EAC, however. Mombasa is the larger port, despite Dar es Salaam's gains, handling 21.9 million mt of cargo in 2012 compared to Dar es Salaam's 12.1 million mt. It is more efficient in terms of vessel wait times, and boasts substantially cheaper official port fees. It added its 19th berth in 2013 and is in the process of constructing a new container terminal that would over double its capacity. More importantly, a $13 billion railway linking Mombasa with Kampala in Uganda and Kigali in Rwanda has been proposed.

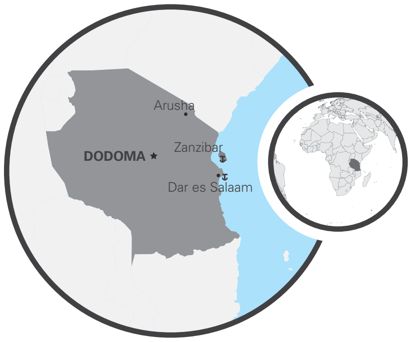
Yet Kenya's largest investments lie further south. The LAPSSET corridor incorporates a new deepwater port with 30 berths at Manda Bay, as well as rail links to Juba in South Sudan and road networks to Addis Ababa in Ethiopia. Although it has faced its fair share of critics, with some saying that it has failed to attract private investors due to a flawed business model and others pointing to its effect on indigenous peoples, especially in Kenya's northwest Turkana county, the LAPSSET corridor project is nonetheless moving ahead. As such, it will increase Kenya's attractiveness as the entry point for South Sudan (a role it is already increasing its claim to) and bring the country into competition with Djibouti for Ethiopia's transit trade.

Of course, there is room for more than a single gateway to the region: these developments represent less a fight to become the single dominant port than an effort to address the lack of capacity the current situation provides. "Developed markets such as Europe have various alternative transportation options. Rotterdam and Hamburg, for example, provide different options for accessing markets and compete nicely with each other. Historically, in Africa there have been few alternatives; that is why Durban has played such a key role in the southern African environment," highlights Smith of Walvis Bay Corridor Group.

Currently, the ports of Mozambique, Tanzania and Kenya appear to be trying to serve as large a geographical area as possible, bringing them into fierce competition for new business even as capacity deficits and inefficiencies prevent them from offering international standards to even their domestic markets. These efforts are reshaping the transport routes of the region and are undeniably beneficial to the industries operating within it. Yet in the longer term, when each country and port final carves out its area of influence, one can hope that we see fewer battles for geographical influence and more specialization: be it for bulk handling, container traffic, offshore service sectors or natural gas liquefaction and transfer. With the potential that the region holds, particularly in the mining sector, the continued development of port infrastructure on Africa's eastern seaboard is both necessary and inevitable. •

Tanzania

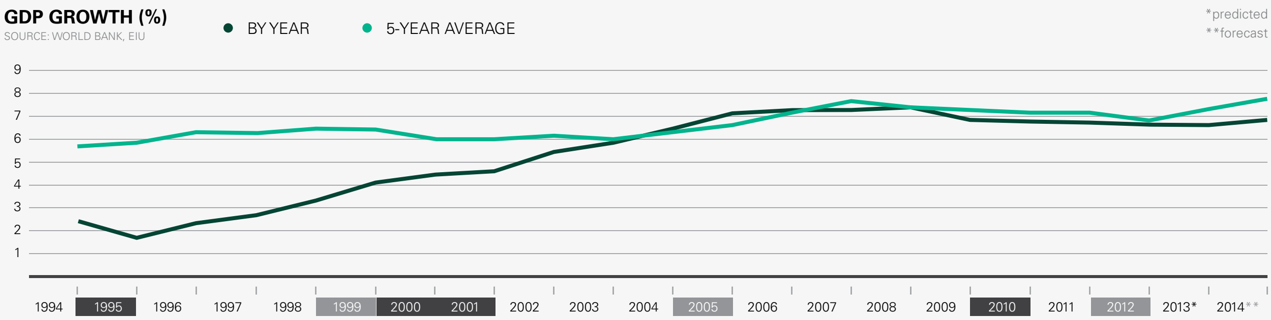
The former British colony of Tanzania is famous for its societal and political stability, which grows from the sense of national identity installed by the first independence president Julius Nyerere. With this stability has come, in the past decade especially, strong economic growth. This growth is only set to increase with the development of hydrocarbon resources in the Rovuma Basin. Tanzania is a globally significant producer of gold, also produces gypsum, copper and silver, and is attracting interest in diamonds, rare earth elements and other minerals.



POPULATION 48,261,942 (July 2013 est)
LAND AREA 947,300 sq km
OFFICIAL LANGUAGE(S) Kiswahili, English
CAPITAL Dar es Salaam
CHIEF OF STATE President Jakaya Kikwete
HEAD OF GOVERNMENT President Jakaya Kikwete
GDP (PPP) $73.5 billion (2012 est)
GROWTH RATE 6.5% (2012 est)
GDP PER CAPITA $1,700 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 27.1%, industry: 24.1%, services: 48.7% (2012 est)
Exports: $5.031 billion (2012): gold, coffee, cashew nuts, manufactures, cotton
Imports: $9.724 billion (2012): consumer goods, machinery and transportation equipment, industrial raw materials, crude oil
MAJOR TRADE PARTNERS China, India, Japan, South Africa

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



Benjamin William Mkapa of the ruling Chama cha Mapinduzi (CCM) wins Tanzania's first multi-party elections.

Julius Nyerere, the first president and founding father of Tanzania, dies of leukemia at the age of 77.

Mkapa wins a second term as president with 71.74% of the vote. Election related protests in the semi-autonomous region of Zanzibar leads to a massacre in January 2001, in which 35 people are killed and 600 injured.

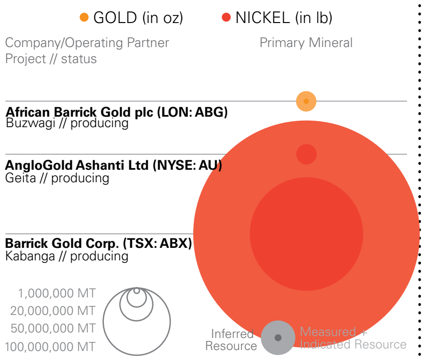
CCM candidate Jakaya Mrisho Kikwete is elected as president with 80.28% of the vote.

Incumbent president Kilwete is reelected with 62.8% of the vote, continuing CCM's political dominance.

Kitwete sacks six ministers after the inspector of public finance points to misuse of public funds.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

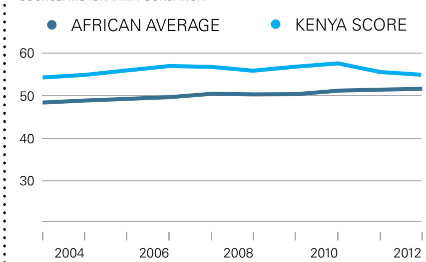
as of 2011
in mt unless otherwise stated

Bauxite	130.000
Coal	18.000
Diamond**	28.378
Copper	6.700
Gold***	40.390
Gypsum	38.659
Phosphate rock	20.000
Salt	36.352
Silver***	3.500

**in carats ***in kilograms

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

1183

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

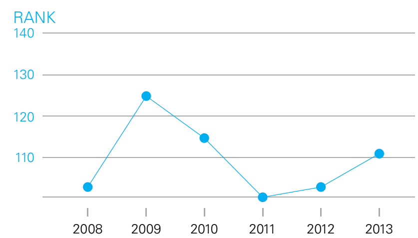
2007 **3.9%**

2011 **3.7%**

These values do not include artisanal mining. The titanium project of Base Resources, located in Kwale, is predicted to increase mining's contribution by 1%.

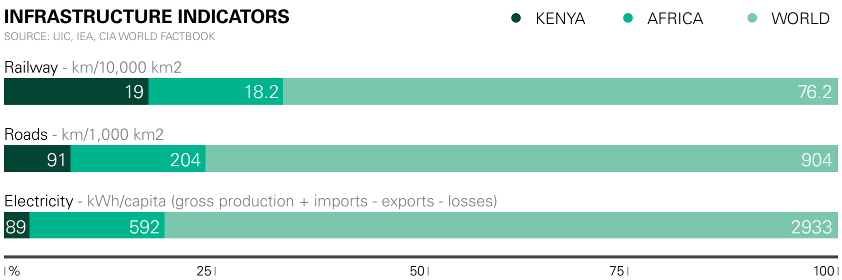
TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

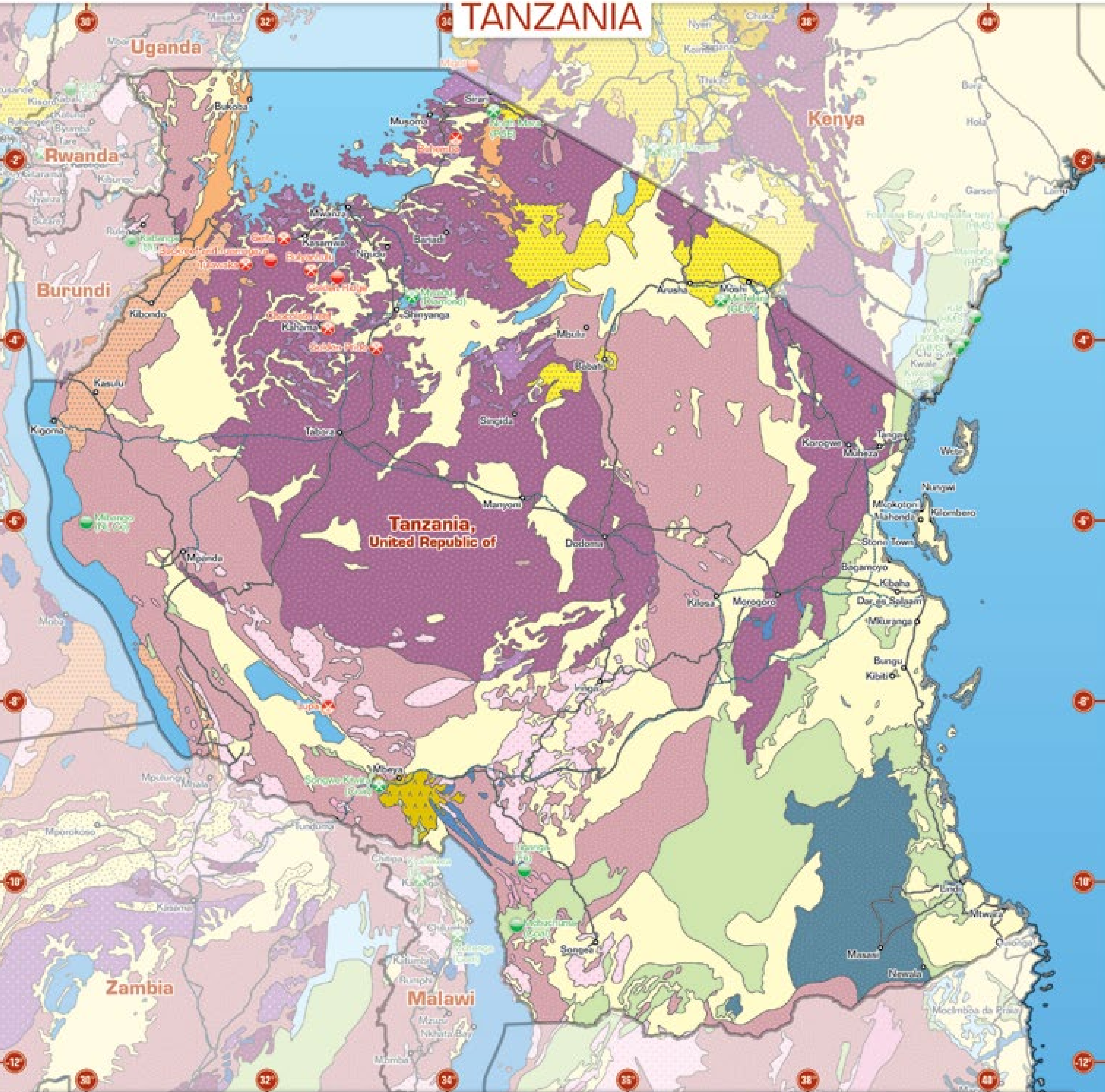


BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	127	136	145
Index of Economic Freedom (177)	110	98	106
Global Competetiviness Report (148)	120	120	125

TANZANIA



GOLD MINES
- Existing
- Gold resources
- Closed

OTHER MINERALS
- Existing mines
- Projects
- Closed mines

CENOZOIC	MESOZOIC	PALEOZOIC	PROTEROZOIC	ARCHEAN
Sediment	Sediment	Sediment	Sediment	Volcanic felsic
Volcanic felsic	Volcanic felsic	Quartzite	Quartzite	Volcanic mafic
Volcanic mafic	Volcanic mafic	Volcanic felsic	Volcanic felsic	Plutonic felsic
Plutonic felsic	Plutonic felsic	Volcanic mafic	Volcanic mafic	Plutonic mafic
Plutonic mafic	Plutonic mafic	Plutonic felsic	Plutonic felsic	Metamorphic
	Metamorphic	Plutonic mafic	Plutonic mafic	Amphibolite
		Metamorphic	Metamorphic	
			Amphibolite	

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

Your feet on the ground in Africa

NORTH

0 50 100 150 200

KILOMETERS

GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84

Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com and David Byrne - / 2013-1st edition

Contribution of Paterne Meledje and Mining Atlas - www.mining-atlas.com

Graphic design: www.arcildesign.com

www.sems-exploration.com

SEMS EXPLORATION

THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honorable Stephen Masele

Deputy Minister of Energy and Minerals (Minerals)

MINISTRY OF ENERGY AND MINERALS, THE UNITED REPUBLIC OF TANZANIA

To begin with, could you please provide us with an overview of the main milestones achieved by the ministry since your appointment in spring 2012?

Last year, the ministry achieved a lot in terms of controlling and auditing production. We have also raised revenue collection to a surplus of 30 billion TZS after changing the royalty rate, which was previously 3% of the net profit, to 4% of the gross value, according to the Mining Act of 2010. We have also managed to control and minimize smuggling, especially of gold and tanzanite, by putting security measures in place at airports and other important borders. Through these measures, we have managed to recover 15 billion TZS worth of minerals.

What steps is the government taking to encourage local participation in the industry and ensure surrounding communities benefit from mining activities?

Corporate social responsibility has improved a lot in the past year. AngloGold Ashanti, for example, which operates the Geita gold mine, has invested in the Geita region, constructing a water reservoir and distribution system in the region from Lake Victoria to the community. They have invested almost $6 million into the community. At one of African Barrick Gold's assets, North Mara, they have reallocated a school close to the mine and built two new schools, a hospital, water systems and road improvements. Both are paying service levies to the local authorizes, which allow local authorities to maintain the services that they provide.

Last year was tough for the mining operators; we were tough on our side trying to see what was happening on the ground after the change of leadership at the ministry. We came in with a different vision and we are trying to fulfill the mining industry's promises to the community. In the past year, they have improved their relationships with the community and taxes have been paid on time.

What do you foresee as the potential role of mining in the national economy?

Mining's contribution to GDP has risen to 3.5% in 2012-2013 from 2.8% last year because the revenue collected increased. Mining is also contributing 50% to foreign exchange and we are looking to raise the bar up to 10% contribution to GDP by 2025 as the new mines start paying corporate taxes.

Going forward, in the gold sector, we do not have serious investment in terms of exploration. The big mines have cut their exploration budgets. African Barrick Gold used to finance $40 million in expansion projects, but now has cut its budget down to $18 million. The ministry is working to sit down with exploration companies to evaluate and analyze their performance to see how much money is being put in so we can have at least indications of the future growth of the industry. In minerals other than gold we have seen many more investments, such as the Dutwa nickel project, the Xstrata-Barrick Kabanga nickel project and interest in iron ore.

What steps is the government putting into place to foster long-term growth in the mining sector?

At the moment we are trying to strengthen the state-mining corporation, STAMICO. We are investing into their assets; we have the Buhemba gold project near North Mara and we also have a joint venture project, Buckreef, in Geita. Through STAMICO, we are on the ground and working to develop the capacity and the capability of the industry to continue exploration and to build up primary data to help investors. We are also investing in the Geological Survey of Tanzania to equip them with technology. They just finished an airborne survey across the country and they are doing mapping of new areas, such as Singida and Dodoma in the central part of the country.

Furthermore, in the past year, the president has created two deputy minister positions within the ministry, to focus one on minerals and one on energy. This shows commitment from the government to put more focus on the sectors and move things in the right direction.

How is the government supporting small-scale miners to increase their contributions to the sector?

Most mining projects are started by the smaller companies. They play an important role and we encourage the growth of small and medium-scale miners. We have formulated an association for small-scale miners and we are trying to raise awareness and educate them in the modern way of doing business. We are trying to pass on knowledge so that they can open to the capital markets, access funds and engage in workable joint ventures. We have a few companies that have engaged in this new model: a copper project in Mpanda, for example, has entered into a joint venture with a foreign company and they are doing very well. •

Tanzania holds an enviable spot in the East African region as a top African gold producer in the midst of early-stage sectors. While neighbours Kenya, Uganda and Rwanda aim to lift their mineral sectors off the ground, Tanzania boasts the presence of majors and considerable exploration activity. Its comparatively lengthier history of modern mining is due in part to a revamping of the country's Investment Act in 1997, which reinvigorated the sector following a period of latency induced by socialism. In spite of its head start, however, new government policies for the industry have called on local mining players to optimize their portfolios and operation budgets.

Mining was identified as a pillar of Tanzania's Vision 2025 and the government is set on pursuing further policies to increase government profits. Mining's contribution to GDP has risen to 3.5% in 2013 from 2.8% last year. Changing the royalty rate from 3% of the net profit to 4% of the gross value, following the Mining Act of 2010, has raised revenue collection to a surplus of $18.7 million. With mining also currently contributing 50% to foreign exchange, the government is hoping to see the sector contribute 10% to GDP by 2025.

Endowed with diverse mineral resources and home to a relatively developed support sector, Tanzania has been an investment darling in the region. As surrounding countries develop their geological databases, however, regional competition is set to grow. The way forward for the industry lies in commodity diversification and an improved climate for greenfield developers and smaller-scale players. While host to the massive gold mines of African Barrick Gold (ABG) and AngloGold Ashanti, a vibrant market for junior companies has yet to develop. As majors struggle with large overheads amidst economic woes in the current financial climate, space is emerging for smaller players to take advantage of Tanzania's more modest deposits. Yet fostering the growth of the exploration and mid-tier sector requires careful calibration of Tanzania's regulatory framework.

REGULATORY ENVIRONMENT

A new Minister of Energy and Minerals in place as of 2012 has led to the introduction of new policies affecting the sector. In a move widely disputed by miners and juniors, the government issued rent increases on prospecting licenses at the start of the year, more than tripling application fees. Contrary to the goal of increasing government revenue from the sector, the increase in rents is driving more explorers to relinquish the majority of their license holdings.

The Mining Act of 2010 sets out clear legislation for Tanzania's mining sector, though challenges have arisen when it comes to its implementation. "Governmental registries can be difficult for juniors here, for example the companies registry and the land registry… African countries need to make it easier to people to walk into a registry, see clearly the details of their asset, and conduct any searches they want to make. When it takes two months to establish a company, it brings inefficiencies all the way down the chain. What Africa needs is technical assistance to improve its institutions. Just something like computerizing the judicial system can take away low-level corruption. There are not many computers at the Business Registrations and Licensing Agency in Tanzania, so files occasionally get lost and it is very difficult to obtain accurate search reports," said Peter Kasanda, legal director at Clyde & Co Tanzania.

In terms of state-led initiatives, the government is investing in the Geological Survey of Tanzania's technological capabilities in an effort to build up primary data available to investors. Following an airborne survey across the country, the Geological Survey is carrying out mapping in new areas in the central part of the country, including the areas of Singida and Dodoma. Mining companies are also in need of transport infrastructure development for roads and rail. This need has been recognized by the government and the administration's recent budget has allotted for development in better roads, rail and telecommunications. To this end, the government is examining the possibility of public private partnerships.

"The 2011 PPP Act was a great idea. It is being led by the Tanzania Investment Centre's PPP unit, but the question is whether the institutional framework here has the capacity to manage several PPP projects from start to finish. They require quite a lot of manpower and have several stages before tendering. The speed of implementation, and the enforcement of the Act are concerns," said Kasanda.

> "The problem small-scale miners are facing is that we do not have access to support from the banks and the government. Most of the arrangements with the government favour the big investors."
>
> - Thomas Kisusi, Managing Director, Tom Diamond Ltd

PRODUCTION AND EXPLORATION

Tanzania has vied with Mali for the distinction of Africa's third largest gold producer, yet recent market dynamics have placed Tanzania firmly in fourth place. Neither the private sector nor the government is limiting their focus to just gold, however. Beyond its chief commodity, Tanzania has seen significant recent developments in the advancement of the country's nickel and uranium deposits. Diamond production continues at the Williamson mine, and the country's eponymous gemstone tanzanite continues to be mined by TanzaniteOne and artisans.

Gold

Gold production in 2012 for Tanzania came in at 1.25 million oz, compared to 1.55 million oz in 2011, as Tanzania's two leading producers ABG and AngloGold Ashanti have seen cash costs rise as gold prices fall. ABG's three current producing mines, Bulyanhulu, Buzwagi and North Mara, are undergoing expansions, as is AngloGold Ashanti's flagship Geita mine. Yet as these mines mature, exploration is underway to find the deposits that can perpetuate Tanzania's reign as a top gold producer.

For its part, the government is focused on investing in the assets of the state mining corporation, STAMICO. Key projects for STAMICO include the Buhemba gold project near North Mara and a joint venture project, Buckreef, in Geita. In addition, ABG's Tulawaka mine is in the process of being transferred to STAMICO.

Also nearby to the majors in the Lake Victoria goldfields, Tembo Gold Corp., a Canadian-based gold explorer, is advancing its Tembo gold project adjacent to the Bulyanhulu mine. After completing a 2012 reverse calculation and diamond-drilling program, Tembo has secured financing for another year of diamond drilling. A key focus of the new drill program will be the Ngula 1 target, where Tembo found compelling intersections at the end of 2012.

"At Barrick's Bulyanhulu gold mine during its exploration, as the drilling progressed deeper, the results got better. At Tembo our first deep hole at the Ngula 1 target achieved an interception of 22 g/t over 15 m at a downhole depth of 299 m. Interestingly, Bulyanhulu's average total resource grade was about 22 g/t with an average width of about 1.7 m," said David Scott, CEO of Tembo Gold.

While Tembo is looking for a high-grade, high-volume deposit, other players are concentrating on more modest projects. Shanta Gold Ltd's New Luika mine started operations in 2011 and is currently ramping up production in the Chunya district, while continuing its development of its Singida gold project. Shanta is on track to meet its goal of 63,000 oz of production for 2013 at New Luika.

Tanzoz Minerals Ltd, which is advancing a gold project in the Lake Victoria area, is also targeting smaller deposits that can quickly be put into production. "Right now, mining in Tanzania is seen as only the big players; however there are also small resources of gold. We are of the opinion that there will be a change to the mining in Tanzania and we will see privately-owned companies like Tanzoz coming in and mining at a very low key and with a low structure," said Alistair Smith, director of Tanzoz Minerals. "Multiple small mines around the country will be very positive for Tanzania. Because small companies can talk directly with small communities, community relations should be a lot better. We would also have smaller plants, therefore the demand on skilled labour would be slightly reduced and we would be able to utilize a lot more people than on a big project."

Base Metals

With the fall in the price of gold this year, Tanzania's mining portfolio is increasingly diversifying. The Kabanga nickel project, a joint venture between Barrick Gold and Xstrata Nickel located in the northwest region, is inching closer to starting operations with an estimated measured and indicated resource of 37.2 million mt grading 2.63% nickel. In addition, both African Eagle Resources plc's Dutwa project and IMX Resources Ltd's Ntaka Hill project are examples of nickel projects showing strong potential.

Tom Diamond Ltd, a small-scale miner and trader engaged primarily in the mining and export of diamonds, has also moved into base metals as of 2013. "We have licenses to mine diamonds and a master dealer's license to export them, however the main sources of diamonds are depleting and we are looking to expand further for new opportunities for growth. We are now going to enter into base minerals, such as copper ore, iron ore, manganese, graphite and bauxite," said Thomas Kisusi, managing director of Tom Diamond.

Base metals require significant capital for their volume-intensive operations, however. As a small-scale producer, it is difficult for local players to deal with the increase in fees and the scarcity of financing. "The problem we are facing as small-scale miners in Tanzania is that we do not have access to support from the banks and the government. Most of the arrangements with the government favour the big investors who are coming to mine in Tanzania. The annual rate for fees the licenses has been increased. It becomes difficult for ordinary persons to pay the fees," Kisui explained. "This year we have spoken with different foreign investors who are willing to work with us for base metal mining. We have applied for mining licenses and are waiting to find financing for mining equipment," said Kisusi.

Uranium and Beyond

A significant step towards mining diversification was the granting of the first uranium mining license in the country to Mantra Resources for their Mkuju River project, located in southern Tanzania. Mantra is looking to begin commissioning pending financing. Once this hurdle can be overcome in spite of the weak uranium price, Mkuju River will become the first uranium mine in Tanzania's history and pave a way for further uranium development. The uranium sector is one that the ministry has been vocal in supporting and has highlighted as a strategic area for growth as the world markets continue to crave clean, cheap power.

Uranium's prohibitively low prices have complicated uranium exploration in the country, however. As a result, Australian based junior Uranex has shifted its focus from solely uranium to a portfolio that simultaneously pursues graphite and other strategic materials. Uranex's Likuyu North project, which is located near to Uranium One's Mkuju River uranium deposits, has a resource of 6.5 million pounds and has the potential to become a much larger resource with further exploration.

While the Likuyu North project is showing potential, it is Uranex's Nachu graphite tenement that they are currently aiming to put in production first. At Nachu, Uranex has carried a programme of EM surveys, RC drilling and diamond drilling during 2013 and is expecting the results of the programme to be announced as they come available in early 2014. With the company looking at an initial production rate of 30,000-40,000 mt per year, Nachu is a candidate for rapid development.

"We are confident we can have the graphite project progressing quite quickly and there is good potential we could be in production within three years. Hopefully the uranium market will also improve and we can progress those resources as well. We will also continue to do exploration on some of our tenements developing and thus keeping company's portfolio diversified," said Rod Chittenden, CEO of Uranex.

Tanzania is still underexplored. It has been contended that this industry is mature, but the history of any goldfield shows that people continue to make discoveries 100 years after everything was thought to be found.

– David Scott, President and CEO, Tembo Gold Corp.

A HUB FOR MINING SERVICE EXPERTISE

As a relatively mature mining market in the region, Tanzania also offers potential to mining service providers. Not only is there a vibrant market for the support sector within the country, but service providers can also benefit from Tanzania's coastal infrastructure to service landlocked East African countries with growing mineral activity.

Atlas Copco, which has a strong presence in Tanzania, is looking to replicate its local business in the other growing mining sectors in the region. "Generally, the mining industry is much better developed in Tanzania than the rest of East Africa. We want to become the supplier of choice for all the new mines setting up, and to maintain our core strength in aftersales support, which can bring us business on a daily basis and keep us in close contact with our customers," said Henry Ngugi, managing director of Atlas Copco Tanzania.

With 80% of Atlas Copco's business in Tanzania coming from mining, the equipment manufacturer has adapted to the industry's slowdown by working more closely with the owners of mines and exploration companies, as well as relying on new technology and methods to help with cost control. "We have been trying to help our customers achieve efficiencies, identifying areas where we can jointly improve productivity. This has involved looking at their equipment and logistics, and rationalizing their organizations. As they have been downsizing and reducing their expat numbers, customers have subcontracted a larger percentage of their activities to us, particularly in the servicing of equipment; they believe, as the manufacturer, we can do this at a lower cost than they can. Atlas Copco has also been helping companies reduce their fuel consumption," said Ngugi. "At Geita Gold Mine, we are working with a drill and blast contractor to test new rock drilling tools and reduce the total cost per meter drilled… For use in processing plants we have released new oil-free air compressors, which are very friendly to the environment, and variable speed drive compressors, which reduce electricity usage by up to 30%; these machines have higher initial costs, but they save the customer money over the life-cycle of the product."

When entering into Tanzania, the business climate can be challenging for new investors. Especially when it comes to the influx of foreign exploration companies, they are in need of local expertise to navigate the market. "A lot of entrants try to cut corners, which is a mistake… Do not be put off by perceived barriers to entry, which is a reality of doing business in any country, and aim to work with established partners and consultancy firms to assist you with your transition into Tanzania," explained Damien Valente, country manager for Minesite Tanzania Ltd.

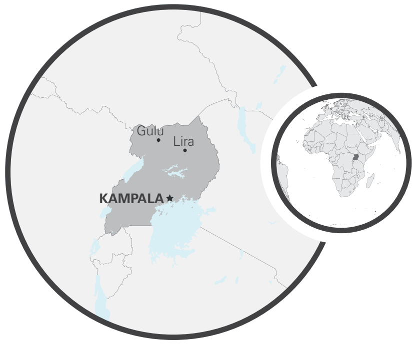
Minesite Tanzania, a Tanzanian-owned company providing support services to the oil and gas and mining sectors, acts a partner on the ground for producers and explorers alike. Beyond the leasing of light vehicles and trucks, earth-moving plant, power-generation and lifting equipment such as cranes, telehandlers and forklifts, Minesite Tanzania also supplies camps, ranging from 30- to 100-man capacity. "There is always a shortage of good and well-maintained equipment in the country, which would be one of my biggest concerns as an investor coming to Tanzania. It is important for health and safety that equipment be less than three years old. With the share prices of mining companies well down, there is not much capital expenditure available and rental services have therefore seen a big increase in demand," said Valente.

As the mining sector develops further, and the oil and gas sector continues to attract investment, miners are hoping for a knock-on effect. "The local support sector for mining has never really developed enough, and has struggled to keep up with new technology and continuously developing health, safety and environmental requirements. Minesite Tanzania is a proudly Tanzanian company, and has invested substantially in a strong management structure at the level required by the big mining companies here to ensure that we meet and in some cases exceed international mining and oil and gas HSE requirements," said Valente.

While increased rents have hit the industry at a difficult time, the enduring potential of Tanzania speaks for itself and has enabled a handful of players to keep up with their exploration activities. As more regional economies target their natural resource sectors for growth, the jurisdiction will need concerted efforts on the parts of the government and private sector to stay competitive. With a long mining history on its side and strong international presence already on the ground, the components are already in place. For Tanzania, it is a question of staying ahead of the game. •

Uganda

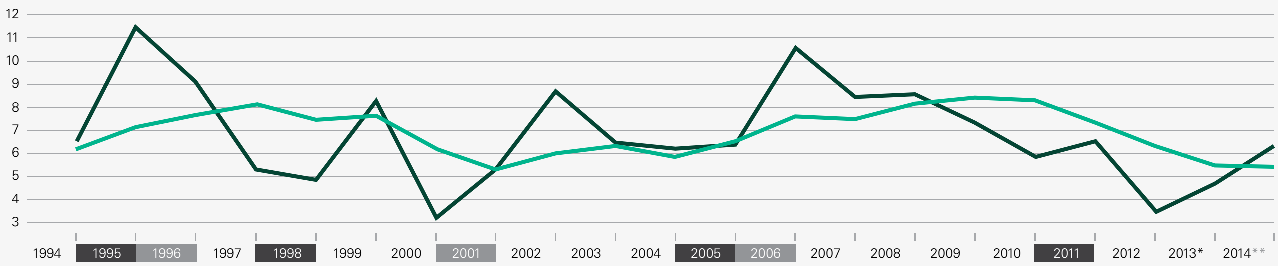
Uganda was a British colony that has struggled with a distinct north-south divide since independence: something that has stunted its democratic development. Economically, however, it ranks above most of its East African peers in international rankings of business environment. The government has been accused of focusing on the country's hydrocarbon reserves to the detriment of the mining industry. Gold, iron ore, and small amounts of other minerals are produced.



POPULATION 34,758,809 (July 2013 est)
LAND AREA 241,038 sq km
OFFICIAL LANGUAGE(S) English
CAPITAL Kampala
CHIEF OF STATE President Lt. Gen. Yoweri Kaguta Museveni
HEAD OF GOVERNMENT President Lt. Gen. Yoweri Kaguta Museveni
GDP (PPP) $50.59 billion (2012 est)
GROWTH RATE 4.2% (2012 est)
GDP PER CAPITA $1,400 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 23.9%, industry: 26.1%, services: 49.9% (2012 est)
Exports: $2.735 billion (2012): coffee, fish and fish products, tea, cotton, flowers, horticultural products; gold
Imports: $5.528 billion (2012): capital equipment, vehicles, petroleum, medical supplies; cereals
MAJOR TRADE PARTNERS Kenya, UAE, India, Rwanda

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



A new constitution legalises political parties but maintains the ban on political activity.

Yoweri Museveni retains his presidency in Uganda's first direct presidential election.

Ugandan forces take part in the Second Congo War, fighting against Laurent Kabila.

Museveni wins a second election. Although challenged by the opposition the result is not overturned.

Parliament votes to remove presidential term limits, allowing Museveni to run for a third term.

Museveni wins a third presidential election with 59% of the vote. An opposition legal challenge again fails.

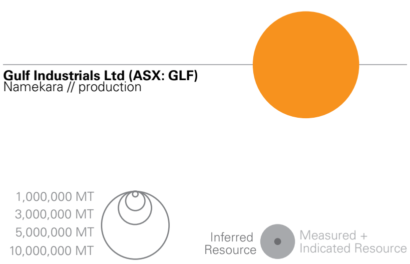
Museveni wins a fourth presidential election with 68% of the vote. Again, elections are marred by voting irregularities.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION

• VERMICULITE

Company/Operating Partner Project // status — Primary Mineral



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

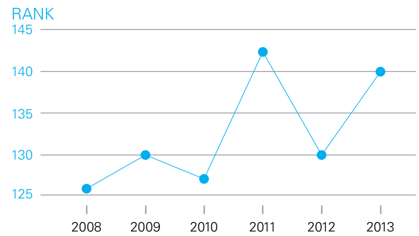
as of 2011
in mt unless otherwise stated

Cobalt	661
Gold**	163
Iron ore	2,134
Kaolin	20,883
Gypsum	100
Tungsten	8
Vermiculite	7,960

**in kilograms

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



INFLATION

SOURCE: WORLD BANK

2011 **18.7%**

2012 **14.7%**

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

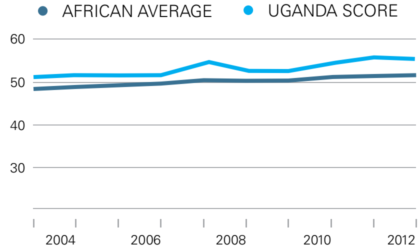
2007 **0.3%**

2011 **0.4%**

These values do not include artisanal mining. The World Bank put mining's contribution to GDP at 0.5% in 2010, having shrunk from 6% in the 1970s.

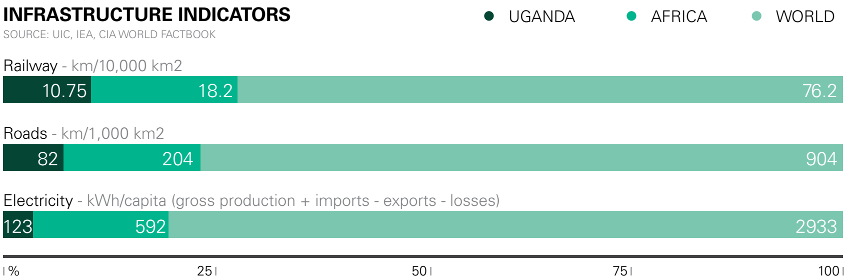
IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

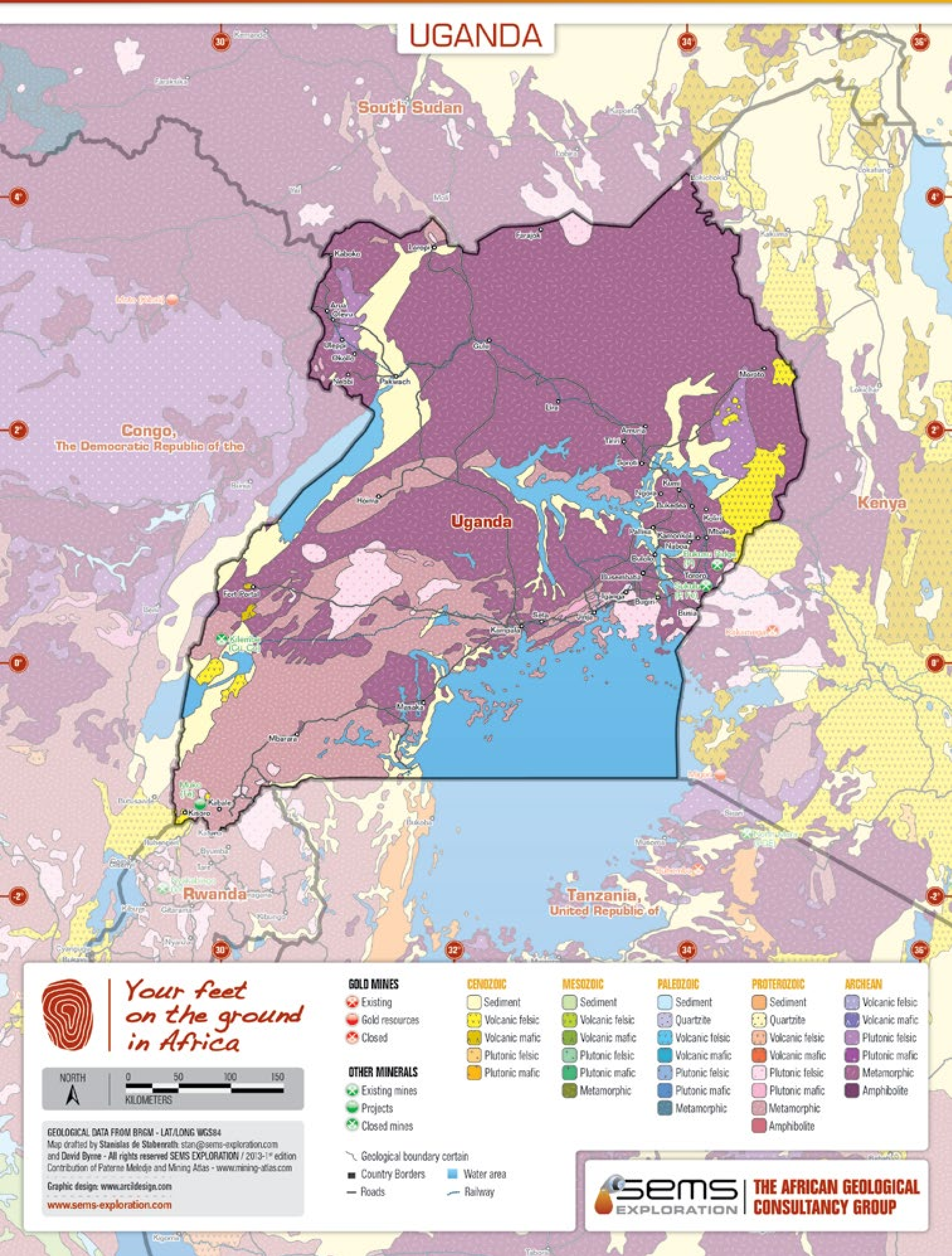
SOURCE: UIC, IEA, CIA WORLD FACTBOOK



BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	123	126	132
Index of Economic Freedom (177)	78	79	91
Global Competetiviness Report (148)	121	123	129


UGANDA
South Sudan
Congo,
The Democratic Republic of the
Uganda
Kenya
Rwanda
Tanzania,
United Republic of
Kampala
Gulu
Lira
Soroti
Mbale
Tororo
Jinja
Fort Portal
Hoima
Masaka
Mbarara
Kabale
Arua
Moroto
Kilembe (Cu, Co)
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
Geological boundary certain
Country Borders
Roads
Water area
Railway
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
Your feet on the ground in Africa
NORTH
0 50 100 150
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com
and David Byrne - All rights reserved SEMS EXPLORATION / 2013-1st edition
Contribution of Paterne Meledje and Mining Atlas - www.mining-atlas.com
Graphic design: www.arcildesign.com
www.sems-exploration.com
SEMS EXPLORATION
THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honorable Irene Muloni

Minister of Energy and Mineral Development
THE REPUBLIC OF UGANDA

Since the introduction of a mineral policy in 2001, Uganda's mining sector has seen considerable growth. As Minister of Energy and Mineral Development, what are your key objectives and initiatives for the development of the Ugandan mineral sector in 2014?
It is my pleasure to share with you our plans to harness the country's mineral wealth. As a nation, we are looking to our natural resources to help support the transformation of this country from where it is to what we hope it will become in the near future. We are endowed with approximately 30 metallic and industrial minerals throughout the country. What we need to do as a country is to gather sufficient data to help attract private investment. We have already carried out geo-surveys over 80% of the country, which investors are already taking advantage of. We are now working on covering the remaining 20%.
Next on our agenda is to confirm the magnitude of each of the minerals; this is where private investment is very much needed. We also want to create as much value added within the country as possible, so we are talking with investors about increasing the processing of materials within the country and avoiding the exporting of raw materials. Given Uganda's current state of development, we also have the potential to use a great deal of the minerals extracted within the country with capacity and infrastructure building as we move forward.
Perhaps most importantly, however, is reviewing the mining laws that govern the sector to ensure that both investors and Ugandans gain the maximum benefit as the industry moves forward. A strengthened institutional framework will ensure that the atmosphere is transparent and conducive to private sector development and also supportive of wider expansion in the country with water supply, agriculture, and other industries.

Given that the trade of conflict minerals is a key issue in the region, what steps is Uganda considering in an effort to promote transparency?
As developing countries in the region, we constantly share frameworks as they come into place that help to ensure the stable and transparent development of the mining sector, and the country as a whole. Where frameworks and mechanisms are in place in other countries and working efficiently, we are open to implementing them here as well. There are a number of regional organizations that arrange such practices that we are members of or partners with to this end.

In response to the challenges that some mine developers have faced in resolving land disputes here in Uganda, how is the government engaging with the industry to ensure local satisfaction and participation?
In making capacity building one of our key initiatives in the coming year, we are also working on forming local content laws that ensure Ugandans see the benefits of the mining sector as well. We have been conducting courses for artisans and examining ways in which locals can form partnerships with the private sector. We want to ensure that they are given the opportunity for involvement with mining companies and owners of surface rights, and that they are sensitized to the industry. It is key that there is an understanding of the continued rights and benefits locals have over their land, even when surface rights belong to mining companies.

Is there a final message you would like to share with our readers and foreign investors about Uganda's advantages as a mining destination?
In Uganda, we are working diligently towards improving the investment climate and installing facilities that enable the further development of the mining sector. Uganda is one of the best destinations for mining in the region; it is beautiful and endowed with many natural resources. We are committed towards supporting and cultivating a healthy investment atmosphere. •

In the pre-independence era, mining in Uganda reached its peak activity between 1955 and 1960 as a chief copper producer in the region. In this heyday, it contributed 30% to Ugandan exports and 6% to GDP. These numbers waned as political turmoil upset operations in the 1970s and 1980s, which has led to a present-day mining sector that is 90% artisanal and contributes 0.4% to GDP. Since the political climate was restored in the mid 1980s, several mines reopened, including those of the Hima Cement Company, Tororo Cement Company and the Busitema gold mine.

To spark this development, Uganda has rolled out its Sustainable Management of Mineral Resources Project (SMMRP) initiative, begun in 2004 and recently completed. The program has been aimed at improving government transparency and building the state's capacity to manage the sector. Funded by a group of institutions including the World Bank, SMMRP has implemented a computerized mining cadastre system to increase oversight of the issuance of mineral rights. Under SMMRP, the government has acquired specialized equipment for data collections, processing and analysis. SMMRP has also spearheaded the mapping of the country's geology and mineral resources in partnership with the Geological Survey of Finland.

The geophysical data available covers 80% of the country, and will soon reach 100% with the final addition of airborne surveys covering the Karamoja region in northeastern Uganda. The highly mineralized region contains gold, platinum, cobalt, tin and limestone, however has been a politically contentious area. A newly improved security climate is allowing for a completed database of the country. As a result of these initiatives, foreign investor interest in East African mining opportunities has raised Uganda's profile as an investment destination in recent years. In the last five years, government revenue from the sector has increased from $1.2 million to $2.8 billion. "Since we started the project in 2004, we have seen a sixfold to sevenfold increase in investors interested in exploration," said Edwards Katto, acting commissioner for Uganda's Department of Geological Survey and Mines.

REGULATORY ENVIRONMENT

Mining was not a key economic target for the government until 2000, when the sector was put under close examination for its revamping potential. Confronted with an out-dated legal framework from 1964, the government put into place a new mineral policy in 2001. Uganda's Mining Act was passed into law in 2003. To further improve the legal framework of the industry, reform of the country's 2003 mining code is underway, with the stated goals of harmonizing land and mineral rights, ensuring local community benefits and encouraging exploration activity amongst license holders.

Conflict between the mining code and land rights will also be a linchpin in the reform process. "The National Development plan in 2010 identified land allocation as a big problem… We need to look at how the mineral sector is allocated land alongside other key sectors," said Dennis Kusaasira, managing partner at the law firm ABMAK Associates. "The mineral estate is severed from the land estate in Uganda; mineral-rich land does not belong to the government, but it does have to be acquired properly by the interested parties… The rules regarding access and ownership of land and adequate compensation for land allotted to mining companies must be addressed as the mining policy is reviewed."

PRODUCTION AND EXPLORATION

The country has promising gold potential lurking in the southeast, a continuation of Tanzania's prolific Lake Victoria goldfields, as well as in the embattled eastern Karamoja region in the northeast, which is newly stabilized and offering an open playing field to investors. Base metal opportunities also abound in copper, cobalt and tin. Current mineral production volumes have varied significantly by year, as a result of commodity prices and land disputes.

GOLD

Production coming from the Busitema Mining Company Ltd's Tira gold mine, Kisita Mining Company Ltd and the Kitaka lead-gold mine has accounted for Uganda's small levels of annual gold production in the past decade. Conflicts with local authorities over land and the need for rehabilitation of these operations have halted gold production and the mines are awaiting redevelopment. Busitema is currently undergoing redevelopment under new owners Greenstone Resources Ltd. The new owners have invested $2 million this year into upgrading the infrastructure and putting an exploration program into place.

"The goal of the exploration process going on at the moment is to initially prove up 500,000 oz within the mining license," said Paul Sherwen, chairman of Greenstone Resources. "We believe that is very easily upgradable to 1 million oz. With the 1,200 km² of exploration licenses that we have, we believe we are looking at a multimillion ounce deposit." Further north in the newly opened Karamoja region, East African Mining, a subsidiary of East African Gold and is carrying out exploration. "There are not yet big players in Uganda, because some serious work has to be undertaken in exploration. We at East African Gold are taking on this role very seriously. We are undertaking massive drilling programs and we have spent almost $4 million in the last three years," said Richard Kaijuka, executive chairman of East African Gold. "Uganda is at that stage of economic take off. We have a financial system that is conducive to investment with open capital accounts in Uganda that allow any investor to come without being subject to capital controls."

BASE METALS

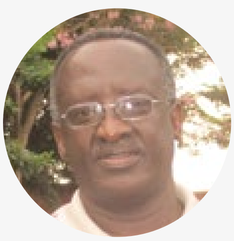
Uganda's history with copper mining holds promise for development of further base metals projects. The largest mining operation the country has seen, Kilembe mines in the southwest, just received an operation lease for its redevelopment, granted by the government to the Chinese consortium, Tibet Hima. A formal agreement was signed in the fall of 2013 and the consortium will commence redevelopment work, which will include the revamping of the Mubuku hydropower station.

Northern Uganda has also seen increased exploration for base metals, as international players such as Sipa Exploration Ltd have moved in. Sipa Exploration, an Australian junior, began looking at East Africa two years ago and moved in Uganda last year after analysing all of the new geophysical data available in the region for Kenya, Uganda, Rwanda and Tanzania. "Uganda's airborne surveys have been incredibly useful. We formed Sipa Exploration Uganda and were granted our tenements in September 2012. Since January we have been working in the field, soil sampling, geological mapping, and we have been getting very encouraging results for lead, zinc silver, nickel, copper and increasingly for gold," said Michael Doepel, managing director of Sipa Exploration.

Boosting Uganda's tin production, Zarnack Holdings has begun operations at the Mwerasandu tin mine in Uganda's Ntungamo district. In 2009vZarnack began active exploration in the area, which has a former tin mine that was the second biggest tin mine in Uganda in the 1960s. "Because we are working on an old mine, it did not take us a long time to quantify the reserves. We were able to put in a mining application after one and a half years of exploration. We received a mining lease in 2012 for 21 years," said Jimmy Katumba, managing director of Zarnack. "Looking at the Ntungamo region in western Uganda, the tin belt has over 20 large mines that are now dormant and waiting for investors. The tin boom in Uganda had just started when the Dodd Frank Act became enforced in 2011. Now investors have been going to other areas."

Spurred by the Dodd Frank Act, the regional move towards mineral tagging has impacted the operations of smaller producers, including Zarnack. With Rwanda's Intentional Tin Research Institute tagging scheme underway, Ugandan producers have had encountered even more difficulty in reaching global markets. In response, Zarnack has taken on its own tagging scheme, signing a memorandum of understanding with Geotraceability on a pilot project for mining development and mineral tagging.

> We have suggested that as a region we look at investing in a multi-purpose smelting plant that is at a mid-point between the countries to start processing.



- Isingoma Amooti,
CEO,
Krone Ltd

STRATEGIC MINERALS

In the area of strategic commodities, Uganda is a forerunner in vermiculite resources. The Namekara vermiculite mine, operated by Gulf Industrials Ltd of Australia, hosts the largest resource of vermiculite in the world. After changing hands from Canmin Resources Ltd and then Rio Tinto, Namekara, located in the eastern part of the country, entered into production in 2010. The company is also examining phosphate and rare earth potential.

Reviving a former tungsten mine to add to Uganda's mineral portfolio, Krone Ltd has taken a low-risk approach to redevelopment, starting out at a low level of production at its mine in western Uganda. The company is setting up a small pilot plant that should increase production, which is currently reaching a daily rate of 500 kg to 800 kg. With the plant up and running, Krone is expecting to handle 3 mt per day of tungsten. "Our production volumes are affected by the terrain and rainy seasons; however we plan to overcome these challenges with the use of proper excavators. We are hoping by the end of this year we should have our mini plant up and running. Using a lift, we also plan to go to the old works and collect minerals from the tailings," said Isingoma Amooti, CEO of Krone Ltd. "It is difficult to reach international markets without a certain level of production. As Krone goes up to 3 mt, we will have a voice. We will venture to international markets as we grow. Currently we work with small traders from Russia and China who come to Uganda. They help us with financing so that we can purchase motors, fuel and generators."

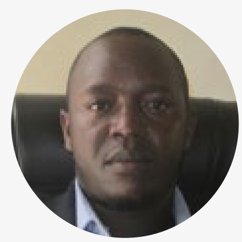
Financing is one issue that remains a challenge for companies in Uganda, both with regards the costs of ramping up production and the earlier-stage exploration. "The problem we have now as we revive the sector is that we are all beginners. There has been an influx of local people into the mining sector. Unfortunately, though, mining is capital intensive and it is difficult to go to a bank to raise the money for a mine. The banks here do not want to take the risk. The sector will not grow unless there is a deliberate approach where someone can help with risk capital," said Amooti.

TAKING ON TRANSPARENCY FOR FUTURE GROWTH

Uganda has a strategic position in the East African region and can serve as an entry point for mining investors targeting DRC and South Sudan. While on one hand this makes Uganda an attractive base for service providers, it also brings the country under scrutiny for mineral smuggling. Crucial to Uganda's upward mining trajectory will be the creation of a transparent environment by the government.

With the proper oversight mechanisms and institutional support, Uganda can serve as a regional example for accountable and sustainable mining practices. Through membership in the International Conference on the Great Lakes Region (ICGLR) and the country's recently completed Sustainable Management of Mineral Resources Project (SMMRP) program, Uganda is already laying the foundations for best practices from budget reporting to mineral ex-

> Uganda has the best tin in the whole Great Lakes region, with a grade of 88% SO2. We have also found grades of 71% pure tin.



- Jimmy Katumba,
Managing Director,
Zarnack Holdings

porting. A significant next step will be membership in the Extractive Industries Transparency Initiative (EITI) coalition, a group of states and organization committed to good governance in the natural resource sectors.

As a member of the ICGLR, which has established its own mineral tracking and certification system, Uganda is working to confront the challenge of mineral smuggling. Minerals from Uganda will soon be tagged and assistance from the Uganda Chamber of Mines and Petroleum (UCMP) will help to troubleshoot implementation. •

SOUTHERN AFRICA

Angola
• Botswana
Lesotho
• Madagascar
• Malawi
Mauritius
• Mozambique
• Namibia
• South Africa
Swaziland
• Zambia
• Zimbabwe

VICTORIA FALLS, ZAMBIA/ZIMBABWE
IMAGE: SHUTTERSTOCK

For all the diversification of mineral exploration and production that Africa as a whole has seen over the past few years, Southern Africa retains its traditional spot as the resource hub of the region. South Africa, despite its well-publicised recent troubles and falling gold production, remains dominant in terms of quantity and value of production, and is home to some of the continent's largest players.

For this reason, eight countries (Botswana, Madagascar, Malawi, Mozambique, Namibia, South Africa, Zambia and Zimbabwe) out of 12 have made it into our top 20 most exciting African mineral jurisdictions this year: the highest number of any region. There are, however, some omissions. Angola's focus on oil and gas has meant that its mineral industry remains underdeveloped, and although this is starting to change it still remains too early to tell how this will progress. Mauritius is an interesting financial centre for junior companies operating on the continent, yet does not host a significant mineral sector of its own. Swaziland remains to small – despite rumours earlier this year that South African mining magnate Patrice Motsepe would make an investment in the country – as does Lesotho, although its mineral industry is undoubtedly more developed.

For the rest of Southern Africa, our choices fall into two groups: those countries that offer a low-risk environment with proven geological potential, and those countries that offer greater risk yet less exploited mineral deposits. In the former fall South Africa, Botswana, Namibia and Zambia. Zimbabwe sits in the latter, with Mozambique and Malawi just crossing the line.

South Africa may have had a tough couple of years, with labour disputes and falling production, yet it continues to dominate African mineral production to an extent that it is impossible to ignore. Despite its recent troubles, the country still holds geological potential and increased mechanisation of its mines – which tend to be labour intensive compared to other mature mining jurisdictions – could create a revival of the industry. Perhaps more exciting, however, is the increased role of Johannesburg as a centre of African mining finance. Roughly 50% of JSE-listed mining issuers have either their primary or secondary projects abroad, predominantly in Africa, and that trend is being helped by government initiatives: in the 2013 budget speech it was announced that JSE-listed companies will be able to establish African or offshore operations not subject to foreign exchange restrictions.

Botswana is consistently being the highest ranked African mining jurisdiction in the Fraser Institute's Annual Survey of Mining Companies. Arguably most exciting, however, is not its traditional strength in diamonds but its other mineral potential. "Coal is a new development for A-Cap Resources, as well as for Botswana. Botswana, until recently, had a moratorium on coal mining as a result of the country's focus on diamond mining, which generates 40% of the country's GDP. This has been lifted as Botswana is now seeking to diversify its mineral industry beyond diamonds. Botswana contains the second largest amount of coal in Africa," explained Paul Callander, director and media relations of A-Cap Resources Ltd, a company who holds two coal projects and Letlhakane, one of the 10 largest undeveloped uranium resources globally, in Botswana.

Botswana must develop its infrastructure to fully develop its coal resources ("coal in Botswana is stranded; infrastructure is not built up around our resource body," said Allan Mullinberg, managing director of Walkabout Resources Ltd, who operate the Takatokwane coal project in Botswana), but seems to have solid plans in place to do this.

Namibia, showed substantial improvement in the Fraser Institute Annual Survey of Mining Companies 2012/2013, rising 15 places to retain its ranking as the third highest in Africa. 2013 has seen the start of expansion work on Walvis Bay port, the start of construction on the Husab uranium mine (which should propel Namibia to second place among global uranium producers), and Nabdem, the joint venture between then Namibian government and De Beers, announcing that it would increase production by 32% at its Elizabeth Bay diamond mine. Namibia also remains one of the few African states that has formulated an official strategy for engaging with emerging economies: a sensible step given the influx of Chinese investment into Africa.

In Zambia, with the mining code currently under review, there are fears of increased state participation in the sector. Yet in truth, President Michael Sato has not succumbed to the resource nationalism that his campaign rhetoric in 2011 seemed to imply. Some tax incentives have been revoked, mineral royalties have been increased, and Statutory Instrument 55 introduced more stringent laws regarding financial reporting in 2013. These reforms have not been without their problems. "The thrust of SI [55] is honourable and aimed at ensuring that the pool of income of the country as a whole is increased… It does, however, present challenges, as it holds the risk of adding cost to business, particularly in the requirements of establishing Letters of Credit," explained Paul Richards, head of corporate and investment banking at Stanbic Bank Zambia.

Yet none of these have been sufficient to substantially stall investment in the sector, and The Economist – an unlikely defender of increased government intervention – has hailed these moves as some of the most sensible in Africa.

Slightly higher risk are Malawi and Mozambique, if only because of the relative immaturity of their mining sectors. The potential of Mozambique's coal sector, which has attracted such heavyweights as Vale and Rio Tinto, is well known: it has the potential to produce up to 100 million mt per annum. Yet infrastructure constraints remain crippling. Malawi's nascent mineral sector has seen a boom in recent years with the beginning of uranium production and strategic mineral discoveries, yet it faces the standard infrastructure issues of a landlocked country. Controversies surrounding the Kayelekera uranium mine of Paladin Energy Ltd and various REE projects also threaten to slow development. Nonetheless, the emergence of both countries on to the mining scene has been substantial.

Zimbabwe remains the most risky jurisdiction in the region for investors of any type. Certain important points stand in its favour: most notably the peaceful elections of 2013, which saw President Robert Mugabe and his ZANU-PF party return to power, and the undeniable mineral potential of the country: it holds an estimated 30% of the world's diamond reserves as well as substantial deposits of gold, PGM and coal. Worries about both current policies and what the future holds certainly remain, yet arguably, the country has emerged from its former isolation stronger: "The last 15 years have certainly been very challenging… We have been forced to think laterally, to understand the miners' challenges and focus on the bigger picture," explains Jim Goddard, Managing Director of J.R. Goddard Contracting, a leading Zimbabwean construction company. •

"Namibia is a good country to invest in, and, provided that the investing company secured a high-grade deposit, the company will have the opportunity for long-term prosperity in this country."

- Kirsten Günzel,
Administrative Manager,
Günzel Drilling

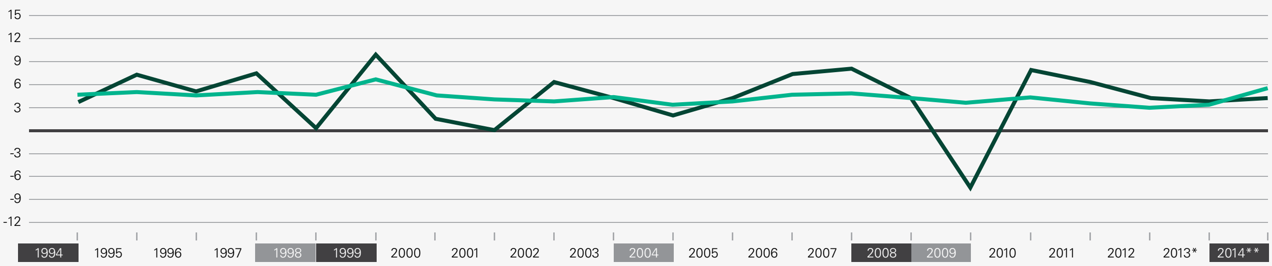
Botswana

Since Botswana gained its independence from Britain in 1966 it has established a impressive democratic system and a reputation as the least corrupt country in Africa. Economically it has done very well, with GDP growth dropping into negative figures only once (2009) since independence. Botswana's mineral industry is very well established: diamonds play a large role in the economy, and base metals, coal, gemstones and various industrial minerals are also produced. Unexploited mineral resources include chromium, gypsum, manganese, and others.

POPULATION 2,127,825 (July 2013 est)
LAND AREA 581,730 sq km
OFFICIAL LANGUAGE(S) English, Tswana
CAPITAL Gaborone
CHIEF OF STATE President Seretse Khama Ian Khama
HEAD OF GOVERNMENT President Seretse Khama Ian Khama
GDP (PPP) $32.67 billion (2012 est)
GROWTH RATE 7.7% (2012 est)
GDP PER CAPITA $16,800 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 2.1%, industry: 45%, services: 52.9% (2011)
Exports: $4.545 billion (2012): diamonds, copper, nickel, soda ash, meat, textiles
Imports: $6.198 billion (2012): foodstuffs, machinery, electrical goods, transport equipment, textiles, fuel and petroleum products, wood and paper products, metal and metal products
MAJOR TRADE PARTNERS South Africa, UK, Norway, China

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



Sir Ketumile Masire of the Botswana Democratic Party (BDP) is reelected for his second term as president.

Masire retires and the presidency is passed to the sitting vice president Festus Mogae.

Mogae, of the BDP, is elected president in his own right with 57% of the vote.

Mogae is reelected for his second term as president, winning 52% of the vote.

Mogae retires and the presidency is passed to VP Ian Khama, son of Botswana's first president

Khama, of the BDP, is elected president in his own right with 53% of the vote

Elections are expected to take place in October, with Khama expected to be reelected.

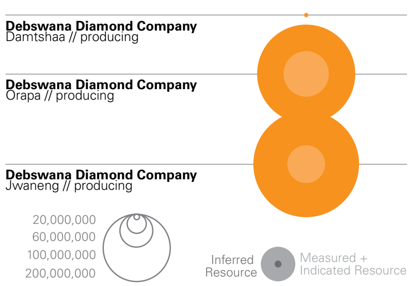
SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION

● DIAMONDS (in carats)

Company/Operating Partner
Project // status

Primary Mineral



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

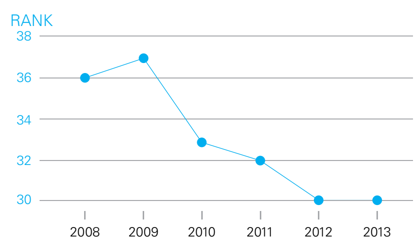
as of 2011
in mt unless otherwise stated

Coal	787,729
Cobalt	149
Copper	28,246
Diamond**	22,903,000
Gold***	1,562
Nickel	16,675
Platinum***	373
Palladium***	2,115
Salt	446,525

**in carats ***in kilograms

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



FOREIGN DIRECT INVESTMENT

SOURCE: UNCTAD

*inflows, $ million

2011	414
2012	293

MINING SECTOR CONTRIBUTION TO GDP

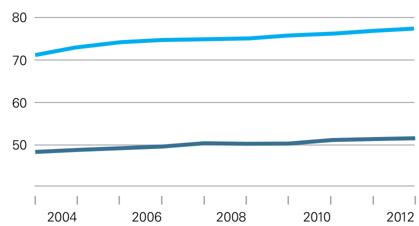
SOURCE: AFRICAN ECONOMIC OUTLOOK

2007	0.3%
2011	0.4%

These values do not include artisanal mining. Diamonds formerly contributed roughly 94% of the total mining contribution to GDP according to the OECD, although this is falling.

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

● BOTSWANA ● AFRICA ● WORLD

	Botswana	Africa	World
Railway - km/10,000 km2	15.26	18.2	76.2
Roads - km/1,000 km2	30	204	904
Electricity - kWh/capita (gross production + imports - exports - losses)	1568	592	2933

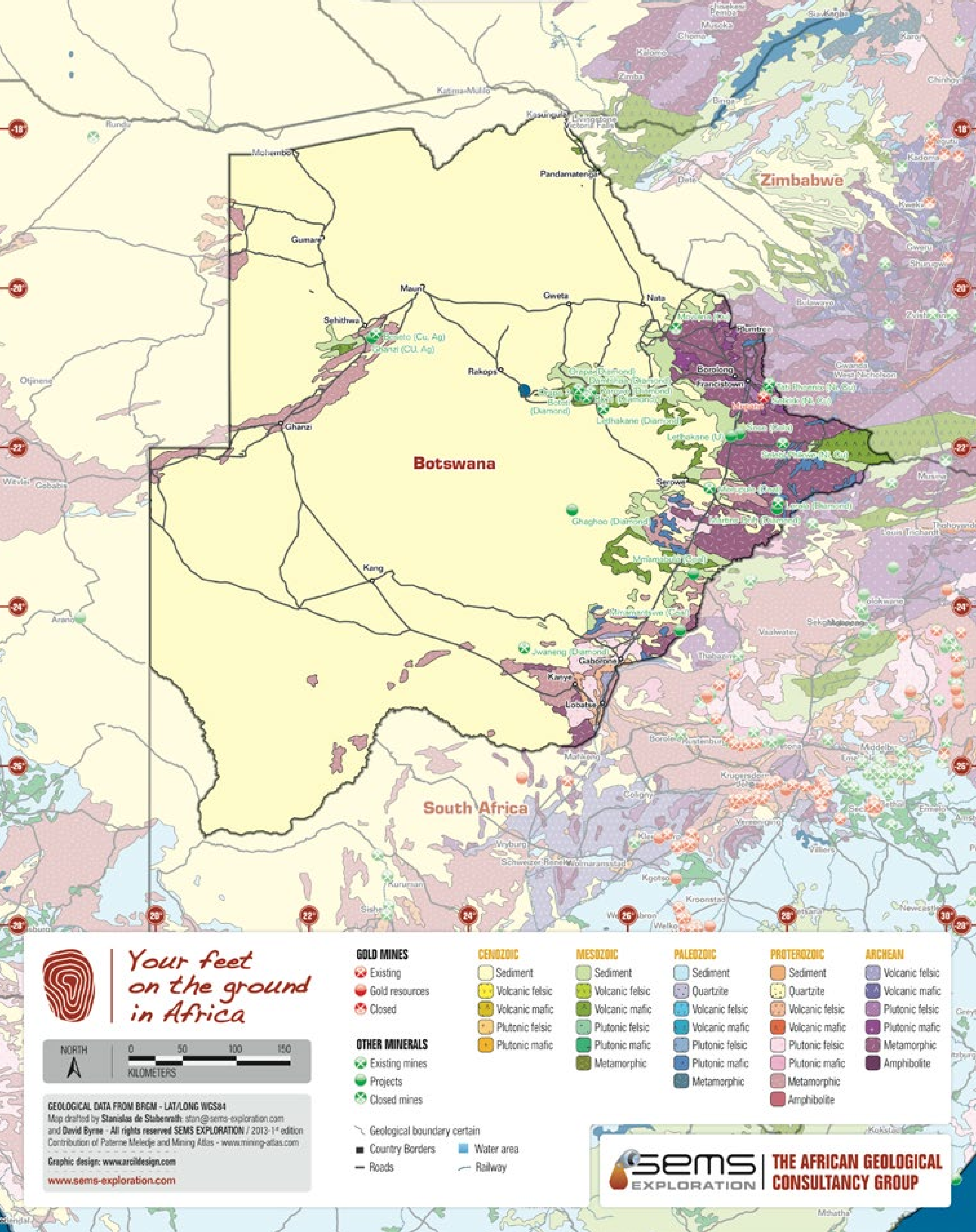
% 25 50 75 100

BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	54	65	56
Index of Economic Freedom (177)	33	30	27
Global Competetiviness Report (148)	80	79	74

BOTSWANA



Botswana
Zimbabwe
South Africa
Maun
Gweta
Nata
Sehithwa
Rakops
Ghanzi
Kang
Serowe
Francistown
Gaborone
Kanye
Lobatse
Pandamatenga
Kasungula
Mohembo
Gumare
Plumtree
Borolong
Orapa (Diamond)
Jwaneng (Diamond)
Letlhakane (Diamond)
Letlhakane (U)
Ghaghoo (Diamond)
Mmamabula (Coal)
Mmamantswe (Coal)
Morupule (Coal)
Boseto (Cu, Ag)
Ghanzi (CU, Ag)
Tati Phoenix (Ni, Cu)
Selebi Phikwe (Ni, Cu)
Lerala (Diamond)
Marble Hall (Diamond)
Bulawayo
Gweru
Kadoma
Kwekwe
Livingstone
Victoria Falls
Katima Mulilo
Rundu
Hwange
Vryburg
Kuruman
Mafikeng
Rustenburg
Krugersdorp
Kroonstad
Polokwane
Thabazimbi
Louis Trichardt
Kimberley
Zimbabwe
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
Geological boundary certain
Country Borders
Water area
Roads
Railway
Your feet on the ground in Africa
NORTH
0 50 100 150
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com
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Contribution of Paterne Meledje and Mining Atlas - www.mining-atlas.com
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SEMS EXPLORATION
THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honourable Onkokame Kitso Mokaila

Ministry of Minerals, Energy and Water Resources
THE REPUBLIC OF BOTSWANA

Diamonds have been the focus of mining in Botswana historically. What new commodities are we beginning to see emerge from the country?
Botswana's development story has focused on diamond mining: a comment on which resource we stumbled upon first, not the resource diversity of the country. After the British left, in 1966, it was diamonds that chartered our way forward and diamond mining that shaped the initial regulatory framework that surrounded our mining industry. Diamond mining became our country's focal point; the revenue generated from their extraction funded our educational systems, built our infrastructure. During this time, much of the country remained unexplored for other commodities, barring cupronickel. This has changed, today. The Government of Botswana has invested heavily in prospecting and through this we have found traces of many other base metals. The economic viability of our resource bodies – not their existence – is now that is under discussion. We know that coal is viable. There is no doubt that there is coal. Now, the Government of Botswana is focused on building up the natural capital of the country. Mineral diversification is of critical importance to our continued growth.

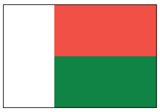
Uranium is an alternate commodity that resource explorers are currently focusing on in Botswana. Is a Botswanan uranium project feasible given the conditions of the global uranium market post-Fukushima?
Uranium resources are currently under development in Botswana. Prior to us being able to address the question of whether Botswanan uranium is economically feasible, we must first assess what grades the country offers and how large the country's uranium resources are. These two questions are ones that prospectors currently operating within the country are seeking to answer.

Surrounding infrastructure is a key determinant of the economic viability of any bulk-material commodity, like coal. What infrastructure development initiatives has the Government of Botswana embarked on?
Infrastructure is a key challenge to the development of a project within Botswana. Botswana is land-locked; we do not have our own ports. We are currently working to improve linkages between Botswana and ports found within Namibia, Mozambique and South Africa. At present, small quantities of coal are being exported to Europe through Durban in South Africa. Evaluations are currently being made to decide if existing railway lines between Mozambique and Botswana should be refurbished, which would better connect the country to the ports of Maputo and Matola. A Trans-Kalahari railway line is currently undergoing a feasibility study; bilateral negotiations are currently taking place to help support the project. Discussions are also occurring between the Government and Transnet, the company behind South Africa's national transport business, to determine whether Botswana should consider participation in infrastructure upgrades that would link Botswana to Richards Bay in South Africa via existing rail lines. Port capacity is an equally important determinant to project logistics. This is currently being worked on to address which ports can support Botswana's mining activity.

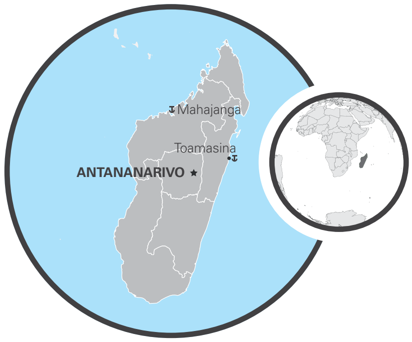
What methodology will the Government of Botswana use in revising its mining code?
Changes will be made to the country's mining coding subject to the discovery of new resources. One cannot create a legal framework for oil exploration and production unless it is known that a country has oil resources. The aim of revisions made to our mining code is not to disadvantage the mining industry; it is to facilitate its development. We regularly meet with industry figures to this end.

At present, the Government of Botswana is currently revising the mining code of the country to address several emerging resources. Coalbed methane gas has to be incorporated into the country's mining code. Mining for seam gas is more complicated than conventional mining and did not fall under the scope of our mining code as currently structured. As our country's mining industry is now mature, we must also now address issues like mine closure and land rehabilitation. Changes made to address these issues are now being made both within the mining code as well within the tax code of the country. Our income tax act has been changed so as to recognize funds set aside for mining as an expense, making such expenses tax deductible. Illegal mining is also being addressed. This said, the overall structure of the country's mining code will not diverge significantly from the framework established by the Mines and Minerals Act of 1999. •

Madagascar



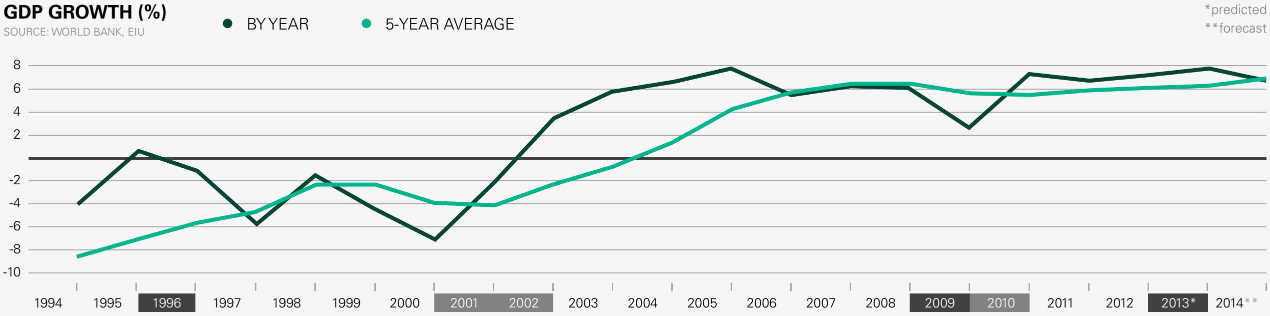
Madagascar is an island of outstanding ecological and cultural diversity. Politically it has been troubled by numerous protests and coups since its independence from France. Nonetheless, some sensible macroeconomic policies have seen Madagascar experience substantial growth when political stability allows. The mining sector performs below its full potential, although is a significant global producer of ilmenite, rutile and zirconium and has substantial developments planned in nickel and cobalt.



POPULATION 22,599,098 (July 2013 est)
LAND AREA 587,041 sq km
OFFICIAL LANGUAGE(S) French, Malagasy
CAPITAL Antananarivo
CHIEF OF STATE President Andry Nirina Rajoelina
HEAD OF GOVERNMENT Prime Minister Jean Omer Beriziky
GDP (PPP) $21.37 billion (2012 est)
GROWTH RATE 1.9% (2012 est)
GDP PER CAPITA $1,000 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 28.3%, industry: 16.5%, services: 55.2% (2012 est)
Exports: $1.533 billion (2012): coffee, vanilla, shellfish, sugar, cotton cloth, clothing, chromite, petroleum products
Imports: $3.876 billion (2012): capital goods, petroleum, consumer goods, food
MAJOR TRADE PARTNERS France, China, Indonesia

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



President Albert Zafy impeached after economic decline. Didier Ratsiraka elected for his second term

A contested 2001 election is won by Marc Ravalomanana, leading to a seven-month stand off in 2002 between supporters of Ratsiraka and Ravalomanana, with devastating effects for the country's economy

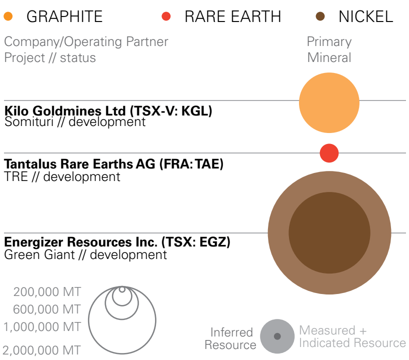
Andry Rajoelina leads a coup d'etat, ousting Ravalomanana. A transitional government is established

A new constitution guaranteeing multiparty democracy is approved by referendum

Presidential and parliamentary elections held, which international observers call free and fair

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



MINE PRODUCTION

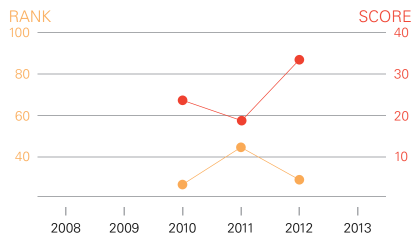
SOURCE: BRITISH GEOLOGICAL SURVEY

as of 2011
in mt unless otherwise stated

Beryl	12
Chromium	66,711
Graphite	3,951
Gypsum	100
Mica	1,165
Salt	70,000
Coumbite	8
Ilmenite	511,000
Rutile	10,000
Zirconium	18,900

FRASER INSTITUTE ANNUAL SURVEY OF MINING COMPANIES

SOURCE: FRASER INSTITUTE



INFLATION

SOURCE: WORLD BANK

2011 **9.5%**
2012 **9.2%**

MINING SECTOR CONTRIBUTION TO GDP

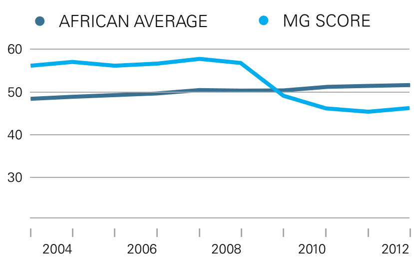
SOURCE: AFRICAN ECONOMIC OUTLOOK

2007 **0.1%**
2012 **0.3%**

These values do not include artisanal mining. Minerals were estimated to contribute 13.7% to total export value in 2010, according to the International Council of Mining & Metals.

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

	MADAGASCAR	AFRICA	WORLD
Railway - km/10,000 km2	15.5	18.2	76.2
Roads - km/1,000 km2	65	204	904
Electricity - kWh/capita (gross production + imports - exports - losses)	99	592	2933

% 25 50 75 100

BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	137	144	148
Index of Economic Freedom (177)	75	73	79
Global Competetiviness Report (148)	130	130	132

INTERVIEW WITH

The Honourable Rajo Daniella Randriafeno

Minister of Mines
THE REPUBLIC OF MADAGASCAR

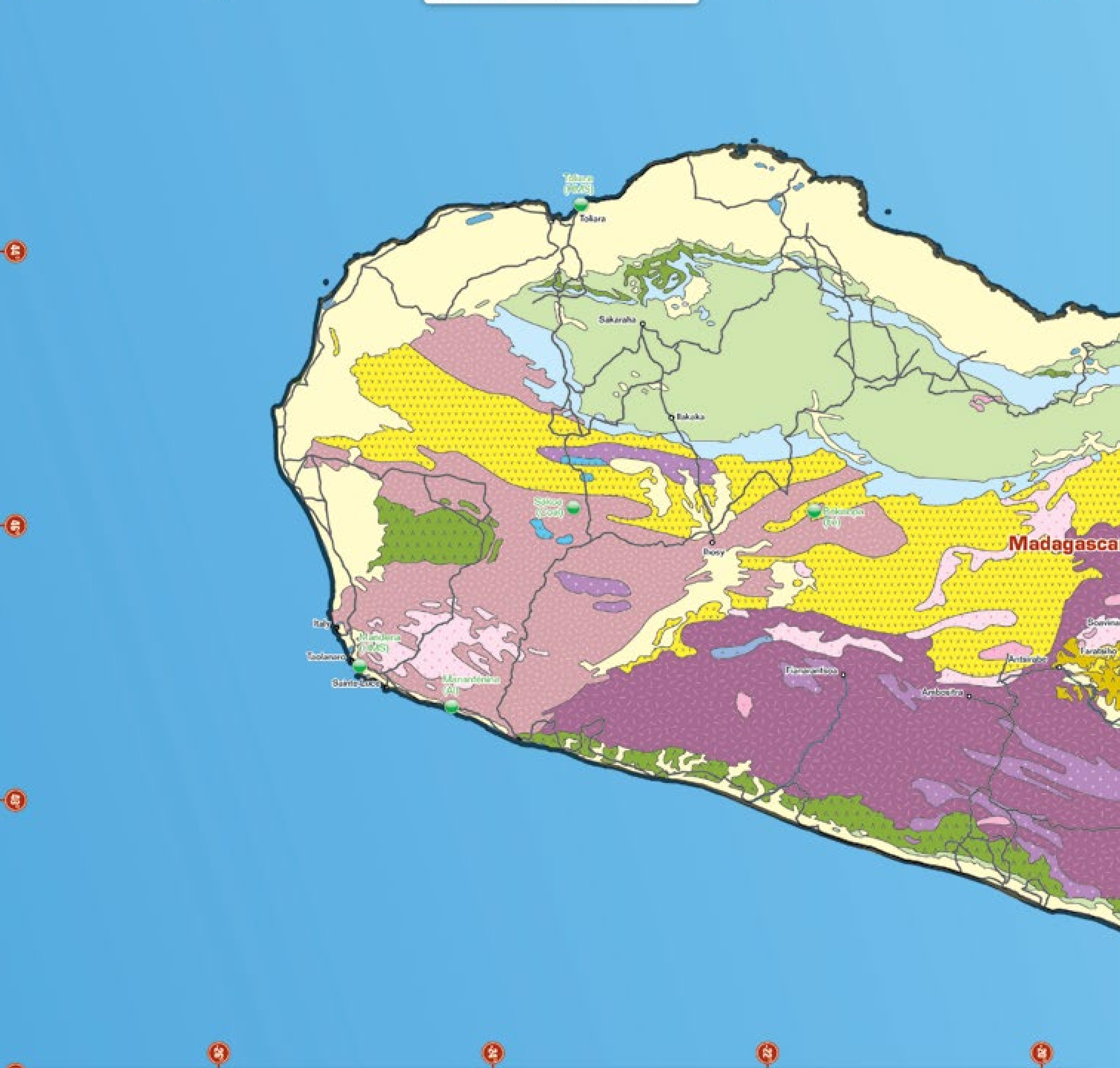
During your tenure as Minister of Mines, what were your key priorities for Madagascar's mining industry?
During my tenure we focused on adopting a long-term perspective with regard to the management of the country's mineral wealth. Our first priority was to enforce the mining code that had been adopted during the previous administration. Next, we aimed to build sustainable relationships with all the relevant stakeholders, including the mining companies, the local communes and civil society. We focused on improving the government's understanding of the work going on in the field, monitoring the companies' activities, and managing any potential conflicts with local communities. We also began educating and informing local people on the potential benefits that they could reap from the mining industry.

Could you provide us with an overview of the country's mineral wealth?
In 2012, we produced an updated geological mapping of Madagascar's mineral wealth, a project that was financed by the World Bank and took five years to complete. We also worked with the Japanese government to update geological maps. The updated geological data showed us that Madagascar had a diversified mineral base, with deposits of almost every mineral. We have gemstones, such as sapphires and rubies, as well as industrial stones such as marble. We have also minerals including chromite and copper, such as malachite. We are now waiting for companies to come to Madagascar to explore and confirm the ore deposits. We also have interesting exploration taking place in iron ore, bauxite and gold.
Madagascar is only at the beginning of its development as a mining destination. We recently engaged with the World Bank to study both the fiscal and non-fiscal contributions of the mining sector to the nation's GDP. We only have two large-scale mining operations at the moment, but we are confident that the number of operations will increase in the short-term. The industry contributes about 2% to the country's GDP at the moment. Once the Ambatovy Mine begins paying royalties, and exports of nickel and cobalt take off, this percentage will certainly rise and could reach 10% of GDP in the short-term, possibly 30% once Ambatovy reaches optimal production. The development of the Toliara Sands Project will also increase the participation of mining in the national economy. It is just the beginning for Madagascar, and things will be changing significantly in the next two or three years.

Ambatovy was the largest foreign investment in the country. However, we have heard discussions over license moratoria as well as community disputes. What steps have been put in place by the Ministry to help control some of the political risks in the mining sector?
The key to mitigating political risks in the industry is to establish strong relationships between all the relevant stakeholders. It is an important commitment to allow foreign companies to start operating, and as a result we focused on enforcing the mining code and ensuring that all stakeholders complied with legal commitments. Our goal with the geological mapping update was to improve our understanding of the current conditions and mitigate risks for companies entering the industry. We also wanted to ensure that local communities recognized the efforts being made by the government to ensure trickle-down effects across the industry value chain, including in terms of generating employment and a local services industry.

You have been a champion of the Extractive industries Transparency Initiative (EITI) in Madagascar. At what stage is Madagascar in becoming EITI compliant?
Madagascar submitted itself as an EITI candidate country in 2008, but our efforts were put on hold during the economic crisis. In 2010, the international secretary of EITI suspended Madagascar's candidacy. During my tenure, my aim was to send the message that, despite the political crisis, transparency in the mining industry remained a priority for the country. We produced the required report for EITI, and in 2012 we received a letter from the international secretary of EITI that Madagascar was technically compliant with EITI standards, but officially remained suspended because of the political situation. When the political situation was stabilized, we would be welcomed back. In May, we were invited to attend the international EITI conference in Sydney, which was a great honor for us, and the international secretary also planned to come to Madagascar in July 2013. We recently signed a convention with the World Bank that will release funding for EITI activities for two years, through 2014. •

MADAGASCAR



Your feet on the ground in Africa

NORTH

0 50 100 150
KILOMETERS

GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com

Contribution of Paterne Meledje and Mining Atlas - www.mining-atlas.com

Graphic design: www.arcildesign.com

www.sems-exploration.com

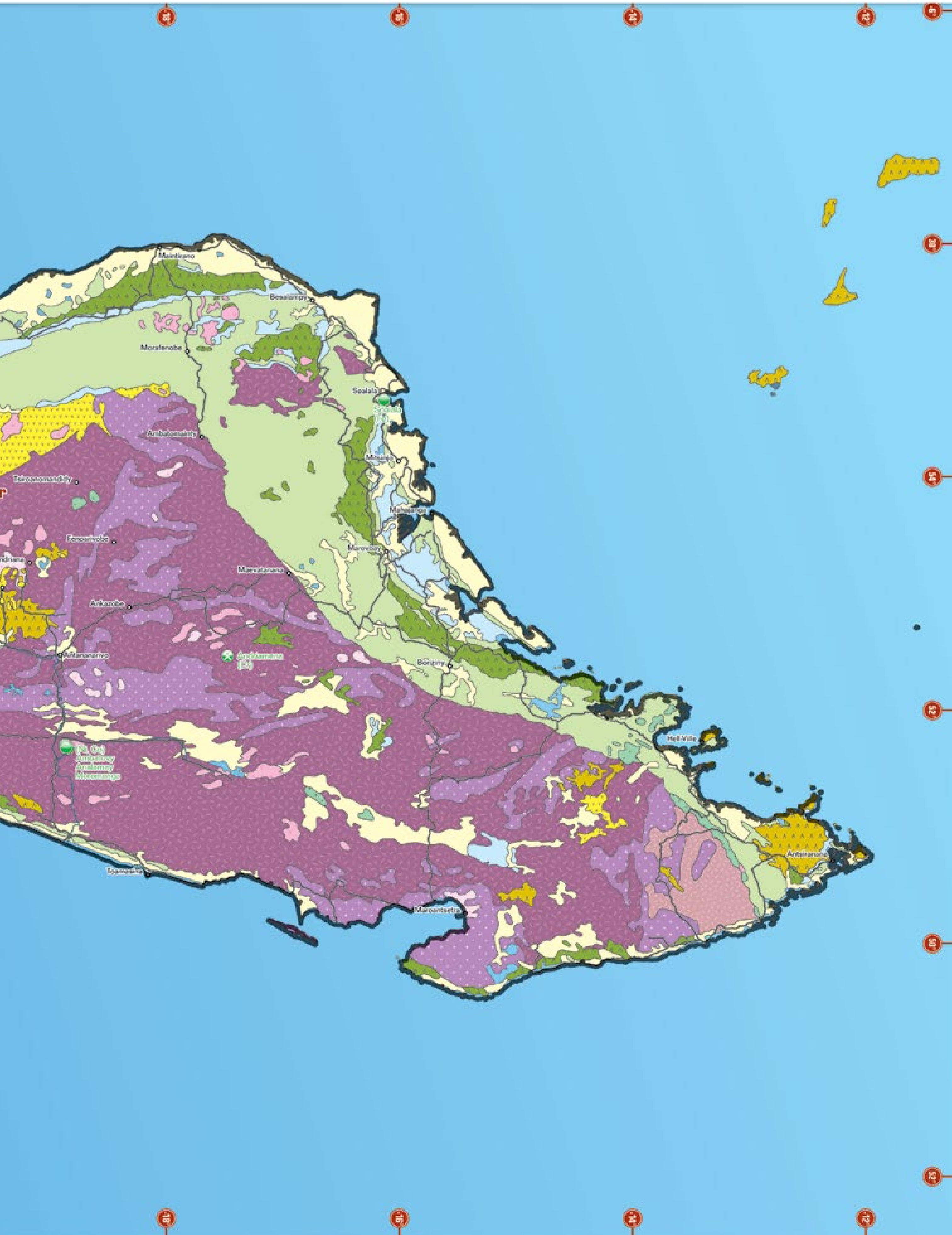
GOLD MINES
- Existing
- Gold resources
- Closed

OTHER MINERALS
- Existing mines
- Projects
- Closed mines

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

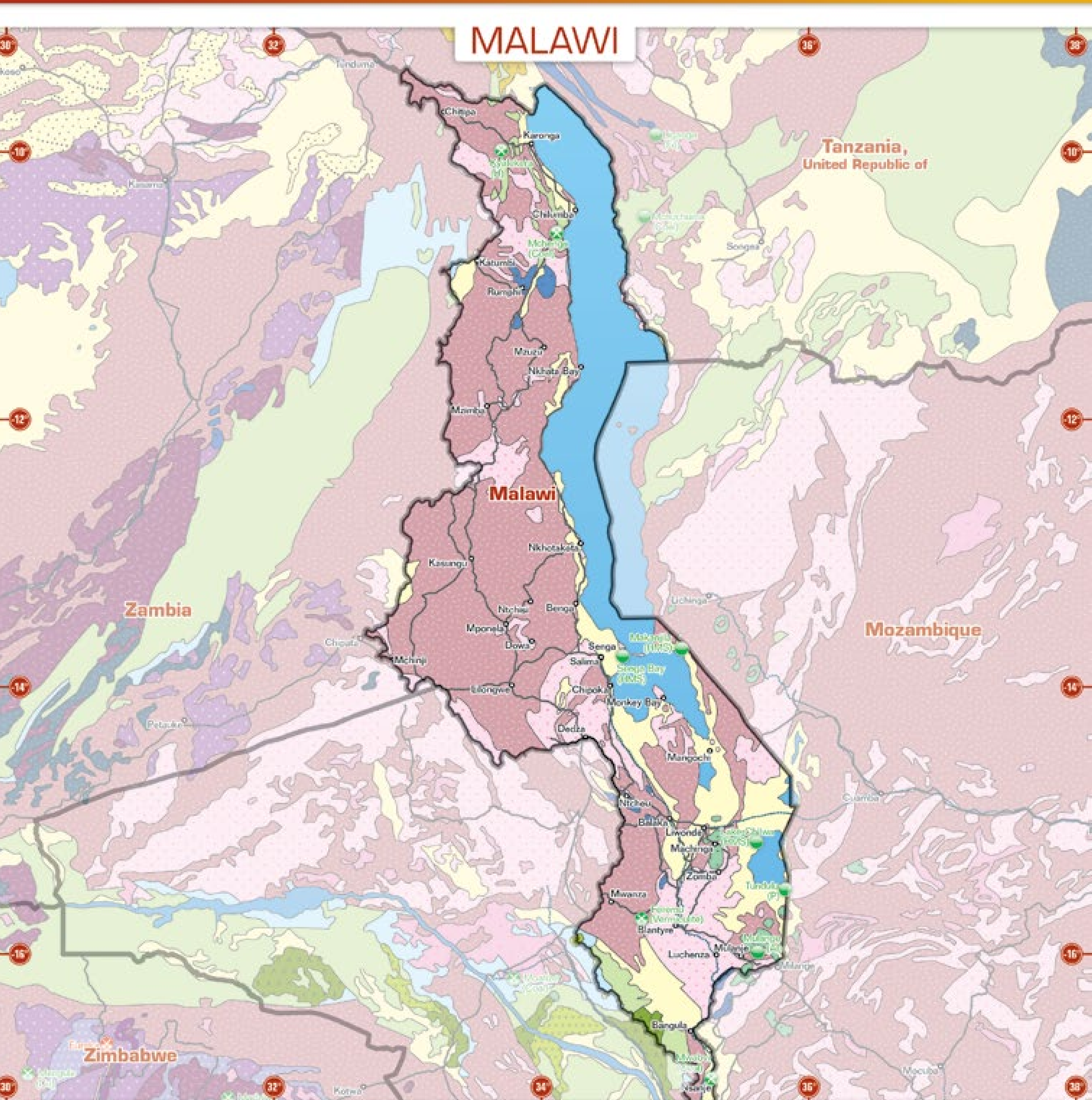
CENOZOIC	MESOZOIC	PALEOZOIC	PROTEROZOIC	ARCHEAN
Sediment	Sediment	Sediment	Sediment	Volcanic felsic
Volcanic felsic	Volcanic felsic	Quartzite	Quartzite	Volcanic mafic
Volcanic mafic	Volcanic mafic	Volcanic felsic	Volcanic felsic	Plutonic felsic
Plutonic felsic	Plutonic felsic	Volcanic mafic	Volcanic mafic	Plutonic mafic
Plutonic mafic	Plutonic mafic	Plutonic felsic	Plutonic felsic	Metamorphic
	Metamorphic	Plutonic mafic	Plutonic mafic	Amphibolite
		Metamorphic	Metamorphic	
			Amphibolite	

SEMS EXPLORATION | THE AFRICAN GEOLOGICAL CONSULTANCY GROUP



Maintirano
Besalampy
Morafenobe
Soalala
Ambatomainty
Tsiroanomandidy
Mitsinjo
Mahajanga
Marovoay
Fenoarivobe
Maevatanana
Ankazobe
Antananarivo
Boriziny
Hell-Ville
Antsiranana
Maroantsetra
Toamasina

MALAWI



Your feet on the ground in Africa

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GOLD MINES

- Existing
- Gold resources
- Closed

OTHER MINERALS

- Existing mines
- Projects
- Closed mines

CENOZOIC	MESOZOIC	PALEOZOIC	PROTEROZOIC	ARCHEAN
Sediment	Sediment	Sediment	Sediment	Volcanic felsic
Volcanic felsic	Volcanic felsic	Quartzite	Quartzite	Volcanic mafic
Volcanic mafic	Volcanic mafic	Volcanic felsic	Volcanic felsic	Plutonic felsic
Plutonic felsic	Plutonic felsic	Volcanic mafic	Volcanic mafic	Plutonic mafic
Plutonic mafic	Plutonic mafic	Plutonic felsic	Plutonic felsic	Metamorphic
	Metamorphic	Plutonic mafic	Plutonic mafic	Amphibolite
		Metamorphic	Metamorphic	
			Amphibolite	

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

SEMS EXPLORATION

THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

Malawi

The beautiful landlocked nation of Malawi was a former British colony. With an undiversified agriculture-based economy, Malawi ranks among the poorest countries in the world. Nonetheless, a stable democratic system is in place and GDP growth has been positive, at an average of around 6% over the past five years. The mining sector has traditionally not been significant (bar uranium production), yet in recent years there has been a boom in the industry following discoveries of rare earth elements, platinum-group metals and other minerals.

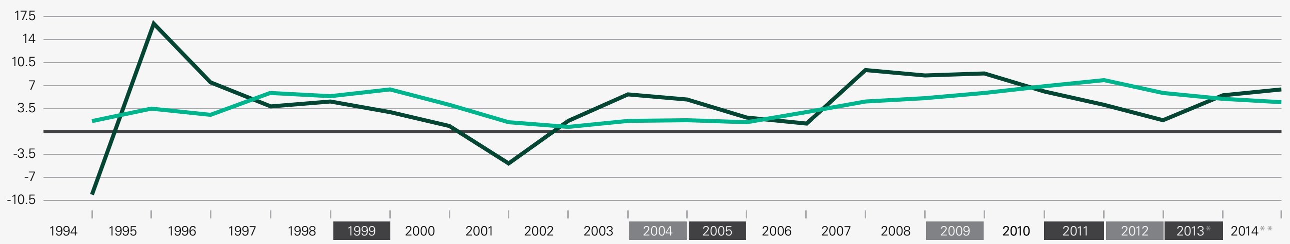
POPULATION 16,777,547 (July 2013 est)
LAND AREA 118,484 sq km
OFFICIAL LANGUAGE(S) Chichewa
CAPITAL Lilongwe
CHIEF OF STATE President Joyce Banda
HEAD OF GOVERNMENT President Joyce Banda
GDP (PPP) $14.58 billion (2012 est)
GROWTH RATE 4.3% (2012 est)
GDP PER CAPITA $900 (2012 est)
ECONOMIC SECTOR BREAKDOWN 29.6%, industry: 16.9%, services: 53.5% (2012 est)
Exports: $860 million (2012): tobacco, tea, sugar, cotton, coffee, peanuts, wood products, apparel
Imports:$1.752 billion (2012): food, petroleum products, semi-manufactures, consumer goods, transportation equipment
MAJOR TRADE PARTNERS South Africa, Canada, India

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU

● BY YEAR ● 5-YEAR AVERAGE

*predicted
**forecast



Bakili Muluzi wins a second term in Malawi's second democratic elections, which led to election-related violence

Elections are won by Bingu wa Mutharika of the UDF, who form a coalition to retain a parliamentary majority

President Bingu wa Mutharika leaves the UDF, partly over disagreement over his anti-corruption campaign

Mutharika wins a second term, this time as head of his new Democratic Progressive Party

Protests erupt over high cost of living, lack of foreign exchange reserves, and Mutharika's increasingly autocracy

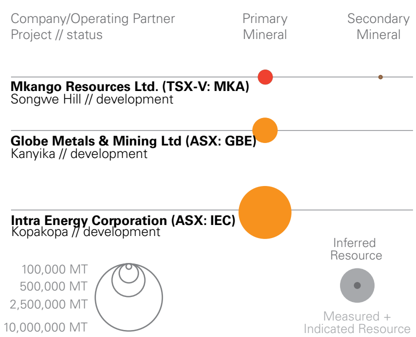
Mutharika dies and is replaced by former vice president Joyce Banda, who quickly devalues the kwacha

Protests erupt in Blantyre over rising inflation. Banda and the IMF defend the devaluation of the kwacha

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION

● RARE EARTH ● NIOBIUM OXIDE ● COAL



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

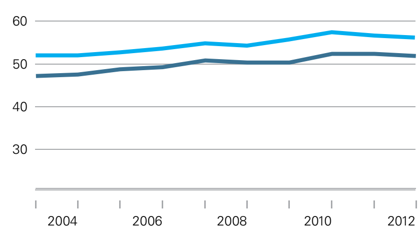
as of 2011
in mt unless otherwise stated

Bentonite	1,000
Coal	79,000
Uranium	998

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION

● AFRICAN AVERAGE ● MALAWI SCORE



INFLATION

SOURCE: WORLD BANK

2011 **7.6%**

2012 **18.4%**

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

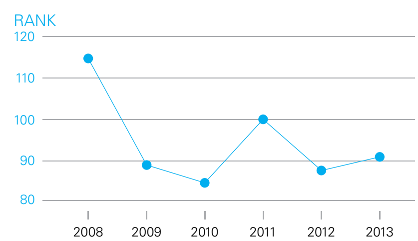
2007 **1.2%**

2011 **1.2%**

Contribution to GDP has risen to 10% following the opening of the Kayelekera uranium mine and the government aims to increase this to 20% of Malawi's GDP by 2023

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

● MALAWI ● AFRICA ● WORLD

BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	145	161	171
Index of Economic Freedom (177)	114	118	124
Global Competetiviness Report (148)	117	129	136

INTERVIEW WITH

The Honourable John Bande

Minister of Mining
MALAWI

What would you describe as your key milestones during your tenure as the first Minister of Mining in Malawi?
As The first Mining Minister in Malawi I have a major challenge to develop a new but key ministry for the nation. My number one focus is to ensure that we have a legal framework that is aligned with international best practices. It is crucial that mining companies already present in Malawi are fairly treated and that new mining initiatives benefit both Malawians and new investors. We will also integrate artisanal small-scale miners into the formal mining sector. Secondly, as Minister, I will follow up on projects that are already pre-existing and new exploration activities to make certain the mining community knows the Ministry is available to listen to the challenges and explore together the best solution moving forward.

Malawi has been considered an agro-based rather than mineral-based economy: what do you foresee as the potential role of the mining industry to Malawi's National economy?
The government recognizes the importance of mining to the Malawian economy and with time it will surpass the 30% contribution to GDP that currently comes from the agriculture industry. At the moment, the mineral sector contributes 10% to GDP. However, previously the GDP was only 3% and, following the opening of just one uranium mine, this has increased to 10%. If we, as a government, do things right then by 2016 we expect 20% of our GDP to come from the mining sector.

What steps has the ministry put in place to create a long-term sustainable mining industry?
The Ministry has made many steps to establish an environment conducive to attracting investment. We have approved a new Mines and Minerals Policy and we are reviewing the current mineral legislation. Also, we do not have sufficient data and information on the mineral deposits available to investors, therefore through our international cooperation with the World Bank we will be launching a geophysical survey to create a catalogue of Malawi's mineral wealth and update the geological maps. Another key element of focus for the ministry is to invest in rare earth minerals as we know that the Japanese have a ready market for them and Malawi has great potential for rare earth minerals especially in the Chilwa Alkaline Province in the Southern region of the country.

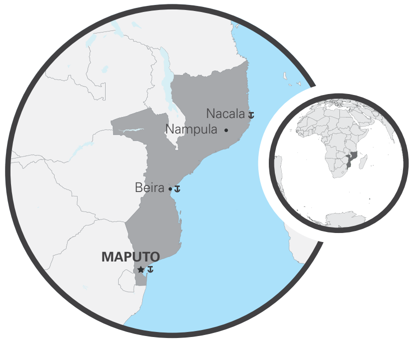
How well developed is infrastructure in Malawi and to what extent will this affect foreign investment?
Malawi has major plans underway to upgrade the existing infrastructure. The railway line is currently under construction by Vale, we are increasing the power generation in the country and we have committed to invest in modern geochemical laboratories.

Can you elaborate on development of the new Mines and Mineral Policy?
There is political will to ensure local participation in the mining industry in Malawi. The Ministry is currently developing a policy for small-scale mining and at the same time we want as a country to ensure that there is local participation in our laws. This is being championed by the privatization commission and in the near future the cabinet will finalize this policy. It is our interest to ensure that Malawians understand what is happening, that they are involved and that they benefit from the nation's mineral wealth.
Another initiative within the Ministry is that we are forming a corporate office. We will have a public relations office and have negotiators that are legal experts to ensure that the new deals in mining are best for Malawi and that the locals have a connection to those deals and understand what is happening in their country.

Landlocked and bordered by some of the most mineral-rich nations on the continent, what is it that sets Malawi apart from its regional neighbors?
Malawi has rich untapped mineral wealth and mining will be one of the most important contributors to the Economic Recovery Plan. Malawi will learn from other countries' mistakes instead of making our own and, with that in mind, our legislation will therefore be very attractive. Since 1964 Malawi has never been at war, we have an excellent environment for trade with favorable laws and policies, we allow dividends to be repatriated and our entry laws are very flexible. The government knows the doing business index is not favorable for Malawi, and this is because we did not have guidance of what to do and how to do it. However, now we do and we can benefit as the last born. •

Mozambique

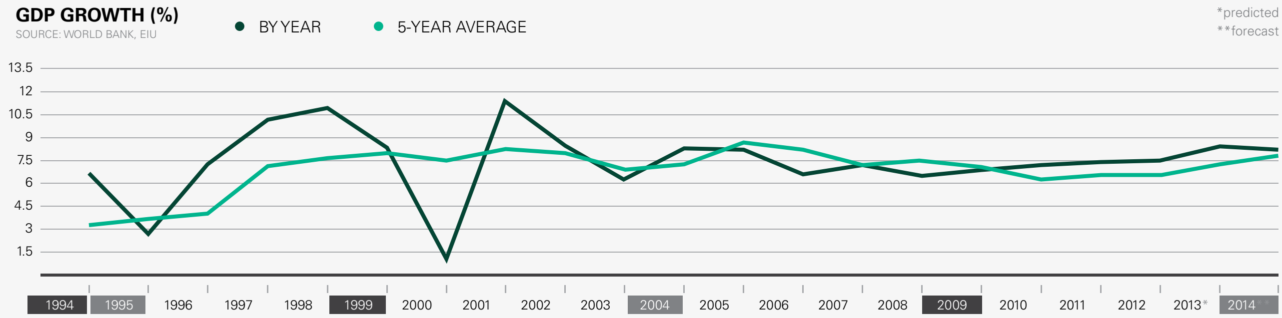
Mozambique was a Portugese colony that suffered heavily from the slave trade. After a decade-long struggle for independence it then suffered a civil war between 1977 and 1994. Recently, however, it has enjoyed a period of political stability and extended high economic growth. Its mining industry holds undoubted potential to become one of the region's leaders in this sector. It is a significant global producer of aluminium, ilmenite, tantalum and zircon, and has production or potential for coal, gold, copper, iron ore, vanadium and other minerals.



POPULATION 24,096,669 (July 2013 est)
LAND AREA 799,380 sq km
OFFICIAL LANGUAGE(S) Portuguese
CAPITAL Maputo
CHIEF OF STATE President Armando Emilio Guebuza
HEAD OF GOVERNMENT Prime Minister Alberto Clementino Vaquina
GDP (PPP) $26.22 billion (2012 est)
GROWTH RATE 7.5% (2012 est)
GDP PER CAPITA $1,200 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 31.8%, industry: 24.6%, services: 43.6% (2012 est)
Exports: $3.516 billion (2012): aluminum, prawns, cashews, cotton, sugar, citrus, timber; bulk electricity
Imports: $5.373 billion (2012): machinery and equipment, vehicles, fuel, chemicals, metal products, foodstuffs, textiles
MAJOR TRADE PARTNERS South Africa, Belgium, China

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



1994: Joaquim Chissano of the Front for the Liberation of Mozambique (FRELIMO) wins the first post-civil war elections

1995: The last UN peace-keeping contingents leave the country. Mozambique joins the Commonwealth of Nations.

1999: Chissano wins a second term. Opposition RENAMO claims fraud and threatens a return to civil war, but backs down.

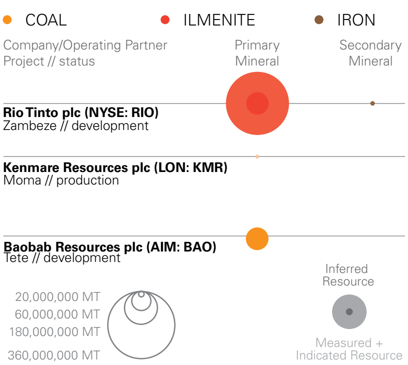
2004: Chissano declines to run for a third term and elections are won by Armando Guebuza of FRELIMO

2009: Chissano wins a second term with 75% of the vote. SADC calls the result "a true reflection of the will of the people"

2014: The Mozambique Democratic Movement, formed out of RENAMO in 2009, may slightly shift dynamics in October elections.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



MINE PRODUCTION

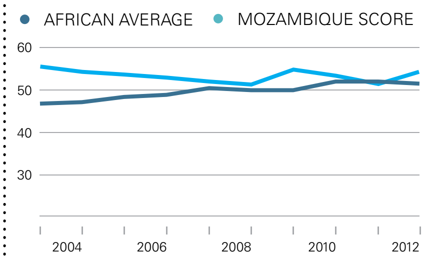
SOURCE: BRITISH GEOLOGICAL SURVEY

as of 2011
in mt unless otherwise stated

Bauxite	10,400
Aluminium	562,000
Bentonite	400
Beryl	22
Coal (bituminous)	82,920
Gold (in kg)	500
Salt	110,000
Tantalite	450
Ilmenite	636,800
Rutile	6,500
Zirconium	43,600

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

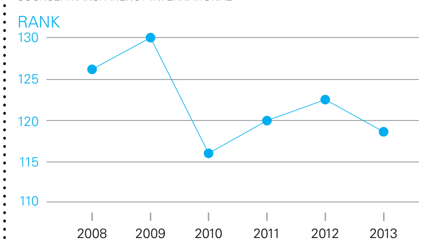
2007 **1.6%**

2011 **1.5%**

These values do not include artisanal mining. In 2011 the National Director of Mines put the contribution at 3%, expected to rise to 7% by 2014.

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



ALL-IN SUSTAINING COSTS ($/OZ AU)

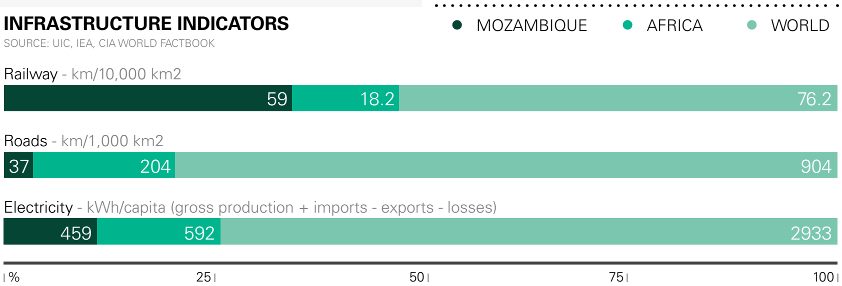
SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

1059

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

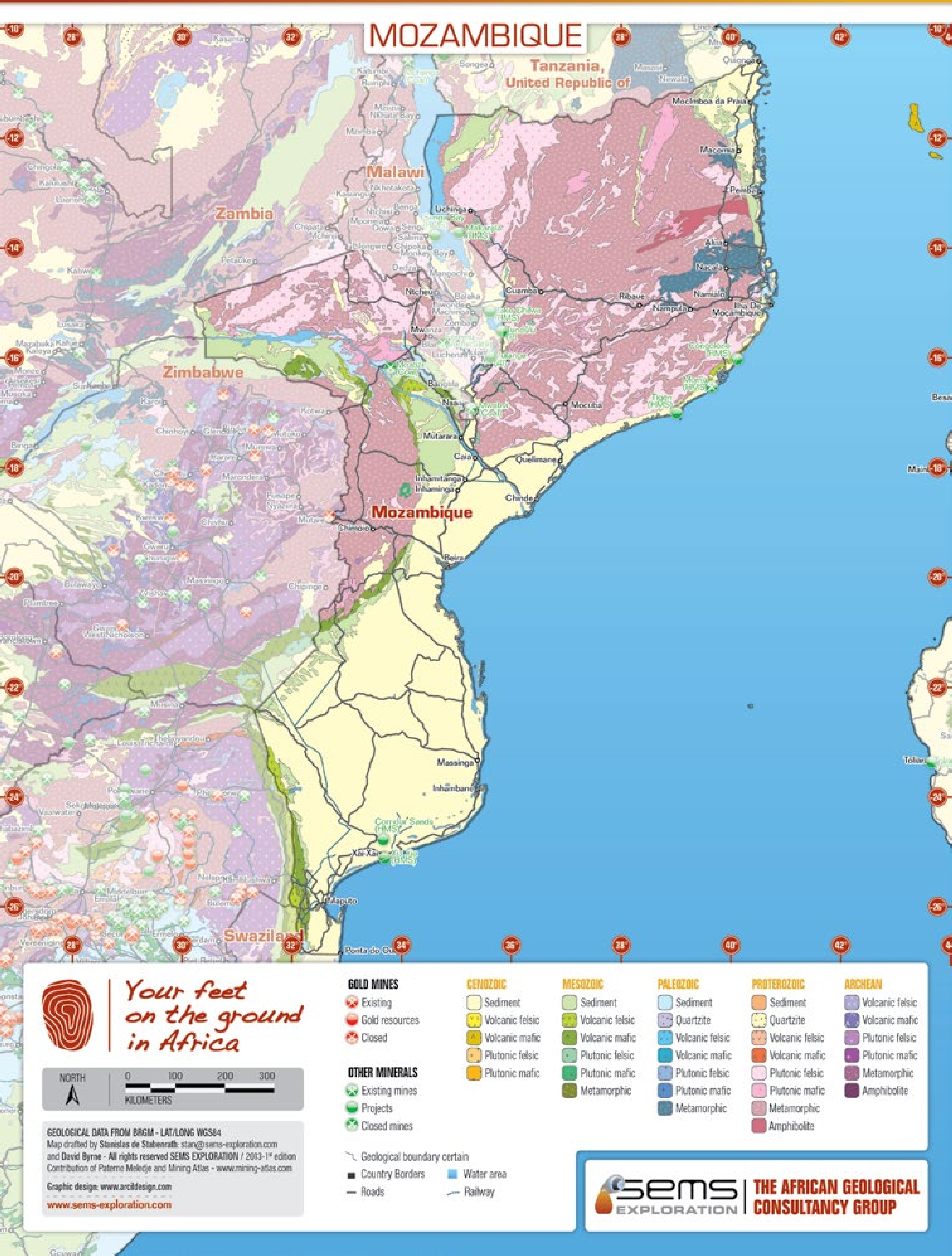


BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	139	142	139
Index of Economic Freedom (177)	108	123	128
Global Competetiviness Report (148)	133	138	137

MOZAMBIQUE


Tanzania, United Republic of
Malawi
Zambia
Zimbabwe
Mozambique
Swaziland
Mocímboa da Praia
Macomia
Pemba
Lichinga
Cuamba
Ribaue
Nampula
Nacala
Namialo
Ilha De Moçambique
Mocuba
Quelimane
Mutarara
Caia
Inhamitanga
Inhaminga
Chinde
Chimoio
Beira
Massinga
Inhambane
Xai-Xai
Maputo
Ponta do Ouro
Corridor Sands (HMS)
Lusaka
Harare
Bulawayo
Mutare
Masvingo
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Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com
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Metamorphic
Amphibolite
SEMS EXPLORATION
THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

Her Excellency Esperança Bias

Minister of Mineral Resources
THE REPUBLIC OF MOZAMBIQUE

What, in your view, makes Mozambique an attractive destination for foreign investment?
Mozambique is a peaceful country and offers good legal framework, a transparent and competitive fiscal regime including fiscal benefits for the mining and petroleum operations. Its geographic location and access to world markets makes the country the gateway to Southern Africa.

Mozambique is, in many respects, a young country with a young mining industry. Yet the Mozambican government has been praised by players across the industry as being transparent and open to discussion. As the legislation governing the sector evolves, could you please discuss some of the proposed changes we can expect to see in the mining code?
Mozambique is open for investment. The past few years have seen significant investment in coal, heavy mineral sands, gold, marble, industrial minerals and hydrocarbons. Our goal is for all of these resources to benefit the country in a 'win-win' situation for both investors and the surrounding communities. Mozambique is already a very different place to what it was 20 years ago, and we are continuously working on improving the transparency of the system further.
To this end, we are currently working on revising the mining code to fill some gaps in the current laws. The key issues we are addressing are local content and participation in the industry and the reduction of exploration time from its current allowance of ten years. Many of the big companies operating in Mozambique have their own laws that govern operations to an equally stringent standard with respect to the community and environment, but we are also working on putting laws into place that will help guide smaller businesses in establishing operations here keeping these issues in mind. Mozambique is an ideal operating space for juniors and smaller companies with more focused portfolios, and we would like to foster this potential.

Despite Mozambique having immense mineral wealth, access to power, water and transport are significant issues facing the country's development today; what sort of public private partnership initiatives can we expect to see coming from the "Coal Masterplan" to help tackle these issues?
We are designing coal and gas master plans that we will use as instruments to govern the manner in which we conduct the industry to extract maximum benefit for Mozambique. Our job is to see that Mozambicans benefit from the use of their natural resources; we are working on putting legislation in place to ensure that revenues given to the treasury are then distributed throughout the country. •

Mozambique has the potential to supply a quarter of the world's coal and could rival Qatar in international natural gas trade within 20 years. Such resource riches have brought about suggestions that Mozambique could have the highest GDP growth rate in the world by 2020 with a staggering 15%. The key word in these suggestions is "could": the resources are certainly present and often with a level of accessibility that would offer low extraction costs, however inadequate infrastructure and political cast some doubt over timelines.

FRELIMO, the ruling party since the state's 1975 independence has, in 2013, been dealing with armed resistance from RENAMO-associated groups, and a spate of kidnapping that has seen the departure of many expatriates. Many experts suggest the heightened security situation exists only to create pressure on FRELIMO in the build up to 2014's elections. However, municipal election on November 20th 2013 has brought about new opposition to President Armando Guebuza's FRELIMO party in the shape of Mozambique Democratic Movement (MDM). MDM won three of Mozambique's four largest cities, and came close to overcoming FRELIMO in the state's capital Maputo; pointing to the possibility of them becoming a major political force in the future.

REGULATORY ENVIRONMENT

A final draft of the proposal to amend the current Mozambican Mining Law (which has been discussed since 2011) has been submitted to the country's Council of Ministers and was originally expected to be passed by Parliament within 2013. However, the submission to the Council of Ministers was apparently not approved within the expected timeframe and it is now likely that the New Mining Law will be passed during 2014.

The new Mining Law is not expected to introduce many changes, but the proposed changes are important. According to the explanatory statement, the New Mining Law aims to give mining activities a modern regulatory basis, guaranteeing the protection of rights and define the obligations of the holders of mining titles. The following additional requirements are to be included in the Mining Agreements: (i) a local employment and staff training strategy; (ii) ore value-adding incentives; and (iii) a pro bono/corporate responsibility plan.

Following the IMF's call for the Mozambican government to publish mining agreements, these will now be published in Mozambique's official gazette (Boletim da República), except for the commercial, strategic and competition clauses, which will remain confidential.

The proposal stipulates new timing requirements; the exploration period is now five years (except for construction resources), it can be renewed for three additional years; mining activities and operations must begin within 12 months from the date of concession, and production within a maximum of 48 months. Rights acquired, or grandfathering, under a mining or concession agreement entered into before the New Mining Law takes affect will not be automatically subject to the new rights.

Considering the early stage of the proposal, there is a possibility of further changes in the months ahead and pass in the Mozambican Parliament well into 2014. However, due to the fact that the civil society is pressuring the Mozambique government to not grant new mining titles until the New Mining Law is enforced, the process could be fast tracked and passed in the first quarter.

"At the moment, the government is very much focused on having the oil and gas decree laws approved by the end of the year which means that this area of our business could develop quickly over 2014. The laws will not only provide more transparency and security to investors in the oil and gas industry but will also positively affect the mining industry. With this relation, I expect the mining industry to develop in a similar way and the level of competition to increase throughout 2014," said Bernardo Aparício, Director of investment banking for Barclays Mozambique.

Mozambique is not adverse to global economic conditions, and therefore subject to the current poor state of major mining markets, yet the industry is pushing forward. "We will have a bidding round for coal probably in June next year. We will select some blocks in the province of Tete and Niassa," said the national director of mines in the Ministry of Mineral Resources, Eduardo Alexandre.

"I see the industry experiencing somewhat of a crisis at the moment, with everyone awaiting an improvement in the situation," stated Mário Dinis Fernandes Deus, managing partner of environmental service company Gondwana. "Here in Mozambique the situation is very dynamic, with one-month bringing apprehension and the next bringing more confidence. We have faith that the problems facing Mozambique will be solved in good faith by the people of Mozambique, and the nation as a whole will be able to fulfil its potential within its resource industries."

PRODUCTION AND EXPLORATION

COAL

Mozambique's first overseas exports of coal in 20 years in 2012 signalled a reawakening of the country's coal mining sector. With the world's fourth largest untapped reserves of coal estimated at 2 billion mt and multi-billion dollar investments, there is growing expectation.

In 2004, Brazil's Vale became the first international mining major to be granted a concession in Mozambique, with its mine at Moatize officially opening in mid-2011. The initial $1.7 billion investment by Vale surpassed that of Mozal to become the largest single investment in Mozambique's history. In total, Vale has invested close to $6 billion in Moatize, railways and deep-water port infrastructure in partnership with Ports and Railways of Mozambique (CFM). However, due to setbacks in the upgrading of rail capacity in 2013, Tete has seen a number of its major coal producers reburying their coal: a move recognised as a sound strategic decision to avoid any major setbacks further down

the line. Yet such strategies have had severe knock on effects throughout the industry.

"Business in Tete has dropped dramatically this year due to the well publicized issues evacuating the coal to port. There has been no consistency in 2013, we have one good month, then two bad, one good then two bad: making it very difficult to do business," explains Mark Norton, director of safety company Norco. "We remain hopeful that with the long anticipated upgrade to the rail network, in which a number of the major coal players will have access, we will see a steady and stable increase in business in the future. The geology is undeniable and the calibre of the mining houses present is as good as anywhere in the world, which gives us huge confidence."

Despite Rio Tinto's $14 billion write-down in its assets globally – $3 billion of which came from its Mozambican coal operations – the company remains committed to its operations in the country, though not before a widespread re-evaluation of the challenges the industry presents. Continued funding for prospecting and research through the first three quarters of 2013 suggested that Rio Tinto is not wavering in its commitment to the country, but the surge in kidnappings and political violence in the fourth quarter of 2013 prompted Rio Tinto to withdraw expatriate employees' families in November. Also Rio Tinto's initial plans to barge coal down the Zambezi River to Mozambique's coast were not approved by the government, citing environmental concerns. The denial of permission for barging means that Rio Tinto will join the likes of Vale and India's Jindal in investing in the country's railway networks.

While Rio Tinto and Vale continue to make headlines, a number of other interesting coal projects are also underway. Indian steel giant Jindal's project in the Tete Basin, which exported its first shipment of coal from Mozambique mid 2013, has a life expectancy of 40+ years with a yearly output of 10 million mt/y, though increased infrastructure could see this boosted to 20 million mt/y. Manoj Gupta, Jindal Mozambique's country director, believes the benefits to being both the producer and end-user of the coal mined in Mozambique – namely allowing for more consistent demand – will, to an extent, protect Jindal from changes in the global coal market. "We have yet to achieve the worldwide bench-line cost for coal transportation, but when the new railway line, new port and new technology are introduced, Mozambique's coal will be very competitive."

OTHER MINERALS

With major mining houses investing billions of dollars into Mozambique's coal infrastructure, the state's greater mineral portfolio has been overshadowed. With less infrastructural requirements than coal producers, a number of juniors producing precious stones and metals are finding an ideal space in which to operate.

ASX-listed Triton Minerals Ltd, a graphite-prospecting junior, surveyed over 50 potential projects before settling on its Balama and Ancuabe graphite deposits in the Cabo Delgado province. Both the Ancuabe and Balama deposits are ideally located near power, road and air transport facilities and the port of Pemba. Located just next to Triton's deposit, Syrah Resources Ltd is another Australian-based junior currently in possession of the world's largest graphite deposit; its inferred resource for Balama West project is 564 million mt, significantly higher than all other deposits of graphite in the world combined. Echoing the views of many, Syrah chairman Tom Eadie said "Syrah Resources finds Mozambique a better and lower-cost place to work than others we have considered."

Though both Triton's Boyle and Eadie are optimistic about the future of their projects, Eadie does admit to difficulties in operating in Mozambique: "We have not managed to locate all the trained people we need; it is not clear where we will find geologists and engineers. The country has a short mining history, and mostly in coal, which is not totally applicable to what we want to do."

AIM-listed Baobab Resources plc has its sights set on becoming the world's largest pig-iron producer. Baobab's managing director, Ben James, feels that Mozambique's limited mining history creates a steep learning curve for both government and industry. "Brazil is the world's largest pig-iron producer and its cost of production is $380/mt to $390/mt... Baobab's estimated cost of production at its Tete property will be around $225/mt, presenting a fantastic opportunity to compete globally."

Infrastructural progress permitting, the cost of operating in Mozambique means that any output over 2.5 million mt/y would allow James to achieve his goal of making Baobab the world's largest producer of pig-iron.

Cherie Leeden, consulting exploration manager for Metals of Africa Ltd, another Perth-based exploration project contiguous with Baobab's Changara project, feels that Mozambique's geology presents some of the most exciting opportunities around outside of the popular coal space. "The vast majority of explorers come here for coal, and in our opinion many metals have been over-looked. Mozambique is about 30 years behind its neighbours in exploration but holds enormous potential... we look forward to investigating more untested surface geo-chemical and geophysical anomalies," said Leeden, whose exploration licenses that are considered highly prospective for zinc, lead and silver.

AIM-listed Gemfields plc, which prides itself on being the world's leading supplier of ethically-produced emeralds from Zambia, recently acquired what it claims is the world's largest deposit of rubies at its Montupuez project, in Mozambique's Cabo Delgado province. While further inland along the Save River near the Mozambique's border with Zimbabwe, Botswana Diamonds plc has partnered with Mozambican company Morminas in an option agreement for three license blocks. The Odzi-Mutare-Manica Greenstone Belt, which stretches 160 km from Zimbabwe into Mozambique, was home to a number of gold mining operations prior to the civil war. Acquiring the Manica gold project, ASX-listed Auroch Minerals hopes to revive this forgotten area once again. These and other projects suggest a diverse mining future for the country.

This future has attracted many leading service companies to Mozambique, such as Atlas Copco, Röhlig Grindrod and UTi. These companies are helping to solve the challenges miners in Mozambique face. Undoubtedly the largest challenge, infrastructure, is being helped by initiatives such as the Janela Único Electrónica (JUE), an online, electronic port processing system that, according to Karen de Almeida, general manager – finance and administration for global logistics giant UTi, has led to at least a 50% improvement in efficiency across all ports. Competition also helps to force solutions. "In addition to UTi we have the likes of Bolloré, Röhlig Grindrod, Bertling and a number of smaller companies. So each tender is hard fought. UTi is fortunate to have strong experience in the mining and petroleum industries, which stands us in good stead for those tenders. Furthermore, the challenges we face in Mozambique require a good knowledge of Mozambique's geography, society and government," explained de Almeida.

Even more encouraging is the establishment of home-grown companies serving the mining industry with international standards. Environmental service companies like Gondwana and Impacto, or safety companies like Norco, rival their international counterparts in terms of quality of work produced, and their local knowledge sets them apart. "Norco is the leading manufacturer of signage in Mozambique and the leading supplier of personal protective equipment (PPE). Our clients are often surprised that quality manufacturing is available in Mozambique, which means they can avoid delays and the headaches associated with importation," explained Mark Norton, director of Norco, who set up an office, warehouse and factory in the Tete region during 2013.

LABOUR AND ENVIRONMENTAL CONCERNS

As a new mining jurisdiction, Mozambique is suffering from a severe shortage of skilled workers. John Ferguson, Mozambique managing director of equipment manufacturer Bell believes that "the situation is getting worse as demand for skilled workers increases with the establishment of mega projects and the service sector."

Coupled with new immigration laws limiting the use of expatriate workers the situation is already causing significant challenges. "I think the government has faced a challenge to find the balance between the development of industry and the development of the local workforce. While the Mozambican government is right to create policies to ensure Mozambicans are employed wherever possible, simultaneously Atlas Copco needs to have skilled and experienced people on the ground in Mozambique now, in order to provide a full service now. Recent changes by the government have made it more challenging for expats to obtain work permits, while respecting and adhering to those laws, it has made our recruitment situation more challenging," said Bill Jenkins, country manager for Atlas Copco Mozambique.

As the industry develops, more mature market challenges will come to the fore, namely those of community and environmental governance. "The level of environmental regulation in Mozambique may not be that high currently, however the country is going through a learning process," said Deus of Gondwana. "Since independence we have had long war during which the environment was neglected and we are only just beginning to look at the area with modern ideas. It must be taken into account that Mozambique is only 38 years old and facing many issues of a young country, however I believe environmental will be the next big issue. Let us also keep in mind that the industrialised countries are still developing their own environmental regulations and practices. It is my hope that Mozambique does not follow the long path of environmental development seen in other countries, instead we should learn from the mistakes and achievements of others, in order to accelerate our own development."

Despite challenges, however, service companies are looking to 2014 as a pivotal and positive year. "Over 2014 we will be looking at major investments in a few different areas, mainly in our support structure. Some of our major customers want to get more involved in remanufacturing of major components both from a cost and convenience perspective. Atlas Copco's reputation is a good indicator of our expertise in this field, however, in order to handle this type of operations we need to make the necessary investments in Mozambique," added Jenkins of Atlas Copco. •

Namibia

Namibia gained independence from South Africa in 1990, after previously being a German colony until 1920. It has had a stable multiparty democracy in place since independence and has enjoyed strong economic growth. Namibia's mining industry forms a significant part of its economy: the country is the world's second largest producer of diamonds in terms of value, and the world's fifth largest producer of uranium. It also produced copper, gold, lead, manganese, silver and zinc, and has potential for iron ore.

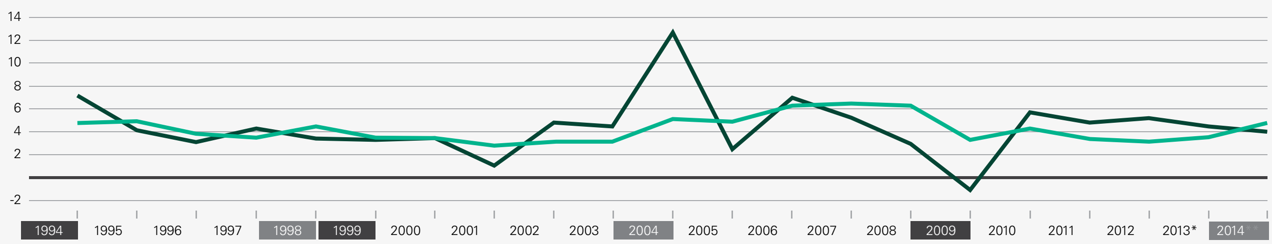
POPULATION 2,182,852 (July 2013 est)
LAND AREA 824,292 sq km
OFFICIAL LANGUAGE(S) English
CAPITAL Windhoek
CHIEF OF STATE President Hifikepunye Pohamba
HEAD OF GOVERNMENT President Hifikepunye Pohamba
GDP (PPP) $16.93 billion (2012 est)
GROWTH RATE 4.6% (2012 est)
GDP PER CAPITA $7,800 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 7.3%, industry: 34.3%, services: 58.4% (2012 est)
Exports: $4.657 billion (2012): diamonds, copper, gold, zinc, lead, uranium; cattle, processed fish, karakul ski
Imports: $5.762 billion (2012): foodstuffs; petroleum products and fuel, machinery and equipment, chemicals
MAJOR TRADE PARTNERS South Africa, UK, Angola, India

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU

● BY YEAR ● 5-YEAR AVERAGE

*predicted
**forecast



Walvis Bay ceded to Namibia from South Africa following Namibia's 1990 independence and the end of apartheid.

Namibia takes a more active role in regional affairs by sending troops to the DRC as part of a SADC contingent.

Sam Nujoma, Namibia's president since independence, is reelected. A secession attempt in the Caprivi region fails.

Nujoma transfers power to Hifikepunye Pohamba, also of the Swapo party.

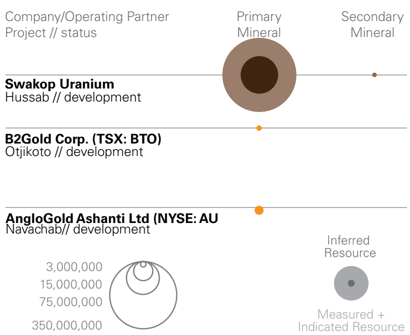
Pohamba reelected president with 75% of the vote. Though opponents questioned this, observers called it fair.

Election scheduled for November. The Swapo party will almost certainly maintain the presidency.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION

● URANIUM (in lb) ● GOLD (in oz)



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

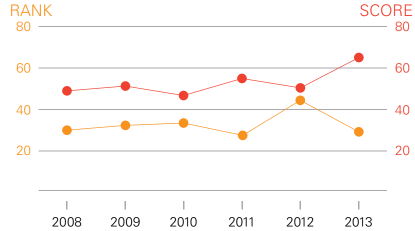
as of 2011
in mt unless otherwise stated

Copper	133.400
Diamond**	108.888
Fluorspar	260
Gold***	480.000
Lead	19.249.057
Manganese	3.500
Salt	9.187
Silver***	3.549
Uranium	19
Zinc	9.518

**in carats ***in kilograms

FRASER INSTITUTE ANNUAL SURVEY OF MINING COMPANIES

SOURCE: FRASER INSTITUTE



MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

2007 11.9%

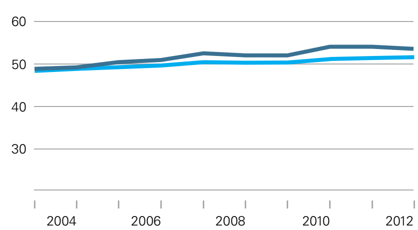
2011 10.6%

These values do not include artisanal mining. Mining's contribution to GDP has been falling over the past decade, yet remains the largest single contributor to GDP.

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION

● AFRICAN AVERAGE ● NAMIBIA SCORE



ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

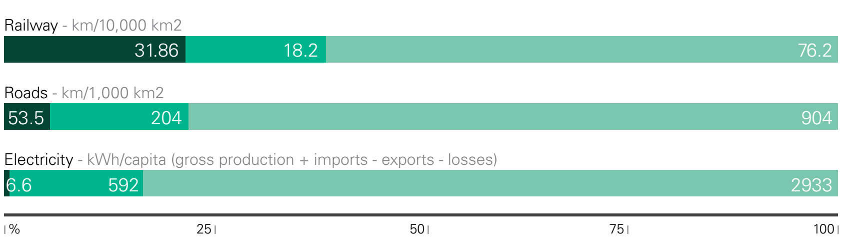
653

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

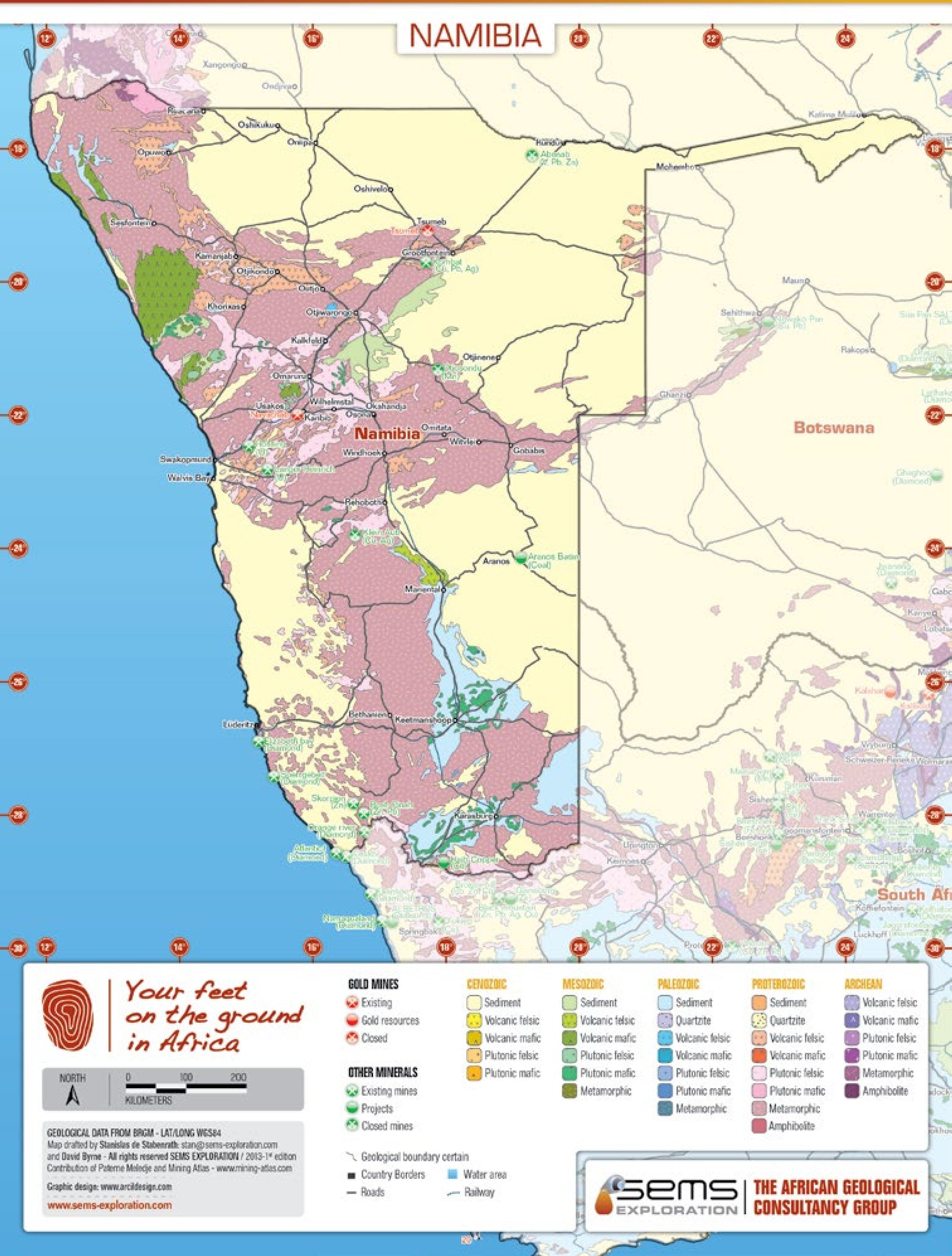
● NAMIBIA ● AFRICA ● WORLD



BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	78	94	98
Index of Economic Freedom (177)	76	84	94
Global Competetiviness Report (148)	83	92	90



NAMIBIA
12°
14°
16°
18°
20°
22°
24°
26°
28°
30°
Xangongo
Ondjiva
Ruacana
Oshikuku
Ongwediva
Opuwo
Oshivelo
Rundu
Katima Mulilo
Abenab (V, Pb, Zn)
Mohembo
Tsumeb
Tsumeb
Sesfontein
Kamanjab
Grootfontein
Kombat (Cu, Pb, Ag)
Otjikondo
Outjo
Khorixas
Otjiwarongo
Maun
Sehithwa
Ngwako Pan (Cu, Pb)
Kalkfeld
Otjinene
Rakops
Otjisondu (Mn)
Omaruru
Ghanzi
Usakos
Wilhelmstal
Okahandja
Navachab
Karibib
Osona
Namibia
Omitara
Witvlei
Botswana
Gobabis
Rössing (U)
Swakopmund
Windhoek
Langer Heinrich (U)
Walvis Bay
Ghaghoo (Diamond)
Rehoboth
Klein Aub (Cu, Ag)
Aranos
Aranos Basin (Coal)
Mariental
Kalahari
Bethanien
Keetmanshoop
Luderitz
Elizabeth bay (Diamond)
Vryburg
Schweizer-Reneke
Sperrgebiet (Diamond)
Kuruman
Skorpion (Zn)
Rosh Pinah (Zn, Pb)
Sishen
Karasburg
Orange river (Diamond)
Warrenton
Kimberley
Alexander Bay (Diamond)
Haib Copper
Upington
Boshof
Keimoes
South Africa
Springbok
Koffiefontein
Luckhoff
Namaqualand (Diamond)
Black Mountain (Zn, Pb, Ag, Cu)
Your feet on the ground in Africa
NORTH
0
100
200
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com
and David Byrne - All rights reserved SEMS EXPLORATION / 2013-1st edition
Contribution of Poteme Meledje and Mining Atlas - www.mining-atlas.com
Graphic design: www.arcildesign.com
www.sems-exploration.com
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
Geological boundary certain
Country Borders
Water area
Roads
Railway
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
SEMS EXPLORATION
THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honourable Isak Katali

Minister of Mines and Energy
THE REPUBLIC OF NAMIBIA

Direct contribution to the Namibian economy from mining is estimated at approximately 15%. Considering the auxiliary benefits to employment rates and development of a diverse service sector, how would you assess the importance of the mining sector to Namibia?
The mining sector still ranks amongst the biggest contributor to our economy through employment, payment of taxes and royalties, procurement of goods and services, etc.

How accurate is international investor perception of Namibia, what misconceptions exist and what elements of Namibia would you highlight to an international mining audience?
Namibia has over the years attracted significant numbers of both foreign and local investors in the minerals sector. To me, that is testimony that we do things right, meaning that the investors have confidence in our policies, legislative frameworks as well as our administrative processes. There are of course always those who for one reason or the other may think otherwise and create misconceptions. Sometimes those misconceptions are created by people who are ignorant. What the mining industry in the world needs to know is that we have a stable democratic government, one of the best geological surveys in the world with a comprehensive geological database and continuously improving, security of tenure, good infrastructure and a very competitive environment for investment, supported by a transparent open door policy of the government.

Could you tell us more about Namibia's national Epangelo Mining Company and the significance of its establishment for the mining sector?
Epangelo Mining Company was established to participate in the minerals sector for the benefit of our people and co contribute to national development. I shall refer you to its website (www.epangelomining.com), where you will find the mandate, objective and obligations to the people of Namibia, amongst others.

Macro economic factors have lead to a severe depression of the uranium markets. What are the implications for Namibia and how dependent is Namibia on the uranium sector?
The implications of the depressed uranium market is simply that new projects and especially marginal ones will become non viable now and in the near future. They might thus be shelved till there is confidence that the market will improve. Being amongst the top five uranium producers in the world, the sector is not only important for the local economy but for the global uranium sector. At the moment we only have two uranium mines, another one will open within the next 18 months. If the situation were to revert to the market levels and the boom experienced during 2006 to 2010, one would see more mines coming on-stream, creating employment, paying taxes and royalties, boosting local procurement and generally contributing to the development of our country.

You recently issued an 18-month moratorium on marine phosphate mining. What message does this send to the mining sector and the nation? Also, how significant could the development of a marine phosphate mining industry be for the Namibian economy?
The moratorium was issued in order for the stakeholders to carefully study the impact on the ecosystem of this new baby on the mining front. Since this industry does not exist anywhere in the world and we might be the first country in the world, we find it imperative that we do not become the guinea pig but rather well researched industry that is viable in all aspects. The message is that the government cares for the present and future of the country and her people. The significance of the contribution to the national economy of this industry might only be known after the studies have been completed.

2012 saw Namibian mining's worst fatality record for the last 10 years with the unfortunate loss of five lives. How much of a concern is this statistic for the sector and what is being done to ensure the situation improves?
Any loss of life, under any circumstances is a concern both to government and private citizens alike. We have engaged stakeholders in order to address these painful statistics and have come up with recommendations that both government and industry are currently implementing. Hopefully at the end of the day, we shall go back to the years when we enjoyed zero fatalities in the industry.

The official Mining in Africa Country Investment Guide (MACIG) will be read by all the delegates of African Mining Indaba 2014, in Cape Town. What is your message to the African-focused international mining community about Namibia?
Take the next flight, come and see what we offer in Namibia!!! •

Namibia's economy is heavily dependent on the extraction and processing of minerals for export. Mining accounts for 8% of GDP, but provides more than 50% of foreign exchange earnings, making it a crucial part of Namibia's economic future. Rich alluvial diamond deposits has traditionally made Namibia a primary source for gem-quality diamonds. However, as terrestrial diamond production dwindles, higher cost marine diamond mining and other minerals (Namibia is the world's fourth-largest producer of uranium) represent the future.

After a shared political history the Namibian economy is closely linked to South Africa: the Namibian dollar is pegged one-to-one to the South African rand. Yet Namibia is no dependent state: GDP growth has consistently exceeded that of its larger neighbour and Namibia is ranked higher in the Fraser Institute's Annual Survey of Mining Companies. "My perception is that foreign investors see many positive things about Namibia: our political stability, the legal system, and the tax regime… In mining, the taxes in Namibia are relatively low. Some potential investors have also said that there is less bureaucracy and their interactions with Namibia's Chamber of Mines have been seamless. We do have our own challenges as a developing country, but I think there are some strong areas that provide a conducive environment for business," suggested Eino Emvula, CEO of Namibia Asset Management.

PRODUCTION AND EXPLORATION

Despite the Fukushima-inspired dive in uranium prices highlighting Namibia's overdependence on the commodity, Chinese-owned Swakop Uranium's Husab mine has proved somewhat of a saving grace. "Despite the depressed market conditions for uranium, Namibia is in a strong position in that Chinese investors are now building a mine that will become the second largest uranium mine in the world. We are expecting 15 million lbs per year of production, which is equivalent of about 6,800 mt of uranium oxide: that will more than double the current production from our two uranium mines," explained Veston Malango, CEO of Namibia's Chamber of Mines.

In partnership with the Chamber of Mines, the Swakopmund-based Uranium Institute, has launched the Namibian branch of the International Uranium Association. The association will support the development of a skilled local workforce and will encourage greater cooperation amongst its 14 members, which includes French giant AREVA, Paladin Energy's Langer Heinrich mine, early-stage Bannerman Resources and Rio Tinto's Rossing Uranium, the world's longest-running open pit uranium mine.

Namibia has recently seen a developments in other minerals. "We will be closely monitoring the development of the uranium market. It will happen, it is just a case of when the global economics and the mining houses allow it to. In the meantime, there are other developments we are tracking: the development of the copper market; significant iron ore deposits coming up in the next four or five years; further gold mine developments," said Mike Leyland, country director of leading explosives firm AEL Mining.

In the gold space, B2Gold Corp. expects construction at its Otjikoto mine to be completed by the fourth quarter of 2014. This will join AngloGold Ashanti's Navachab gold mine, which has been in operation since 1989. Iron ore is showing great promise through exploration projects by Jindal Africa and Lodestone Namibia Ltd. A host of copper exploration projects could add to Weatherly International plc's operating mines in the centre of the country. Not least Weatherly's own Tschudi project, which sits aside Dundee Precious Metal Inc.'s Tsumeb copper smelter. The Skorpion Zinc and Rosh Pinah mines give Namibia substantial zinc production and there is growing interest in the rare earth sector.

Both most controversial and pioneering of potential developments in the country is the marine phosphate mining industry. Notwithstanding the potential rewards to be gained from the relatively new extraction mechanisms, the Namibian Ministry of Mines and Energy has taken a responsible stance on the idea, issuing an 18-month moratorium in September 2013 to assess the potential environmental implications of such production. "Marine phosphate mining is a new phenomenon and the subject is currently under investigation; there is a lot of debate regarding the environmental implications. Our position is that we owe it to Namibians to clarify all of the questions that they have. It is important not to underestimate the capability of unanswered objections on your market," explained Veston Malango, CEO of Namibia's Chamber of Mines.

Namibia lies astride the nutrient-rich Benguela current of the south Atlantic, which supports a rich marine biodiversity in addition to a significant fishing industry: the risk of negatively impacting either only reinforces the maturity of the ministry's actions.

REGULATION, SKILLS AND INFRASTRUCTURE

2012 saw Namibian mining's worst fatality record in 10 years, with five fatalities, prompting a strong response from the industry's leading association. "We are driving a policy of zero harm. After the statistics came out, The Chamber of Mines employed an internationally recognized mining safety consultant from Australia. He undertook a review of our safety systems and benchmarked our performance against other jurisdictions where mining is a major economic activity. One of the measures we have taken on the basis of the recommendations is to implement safety peer reviews at all the mines… The second measure we have implemented is that whenever there is a safety incident at a mine, it is shared: no matter how small. The ultimate aim is for everybody to learn the lessons derived from such incidents so as to avoid a repeat of them," stated Malango.

These measures are not revolutionizing was a poor standard of regulation, but rather they are modernizing and improving a sector that already maintained high standards. For example, "the Explosives Act in Namibia is exactly the same as it currently is in South Africa and the standards are very similar," said Mike Leyland, country director of AEL Mining. "Because a lot of the personnel on the mines are from other mining areas around the world, I have seen a lot of South African best practice being employed in this country."

While Namibia may maintain a similar level of regulation to South Africa, the level of mining-related skills in the local labour force is starkly different. The Namibian government is encouraging mining companies to hire locally, and this policy favours those service firms who have focused on finding experienced Namibians and in-house training.

"The government wants to encourage investment in Namibia and make sure that local expertise is developed. Knight Piésold is doing that and our clients like that we are basically Namibian owned. This gives them the opportunity to employ local people and brings them an advantage in negotiating with the government," explained Günter Leicher, Namibia's regional manager for international consultancy Knight Piésold.

"Even though mineral prices went down, the local economy is still active and we are seeing some Namibians that have gained expertise overseas returning home. It is important to attract these skilled workers, but we also train people ourselves," added Veronique Daigle, senor civil engineer, who leads Knight Piésold's mining division in Namibia.

Like Knight Piésold, other international service companies such as explosives experts AEL Mining are making headway in the Namibian market with their strong approach to training. "AEL is a market leader in many ways. We have got the best explosives engineers in the industry because we have developed in-house training programs. We have in-house development software for surface applications, underground applications, and blast optimization applications," stated Leyland.

Through successful in-house training a number of Namibian service firms have found great success in the local market and begun to look beyond the borders of Namibia. The perfect example is family-owned Günzel Drilling. "Most of the Namibian exploration drilling companies might tell you that 2013 was a very slow year with many rigs standing idle, but we have never been so busy," stated Kirsten Günzel, the company's administrative manager. "We have drilled for most minerals in various formations: iron ore, manganese, rare earths and metals, coal, gold, copper and uranium, and, as every project comes with its unique challenges, we are proud of all of our projects. We recently were awarded a contract in Gabon by a client we previously worked for in Namibia… Although we obviously had to adjust to the very different West African culture, operations went very well and we concluded the project in time and with success. This experience has encouraged us to look at other markets beyond Namibia, although we will be careful to avoid saturated markets or politically unstable countries."

Companis are also helped by well-developed infrastructure, an area that has been highlighted as a key pillar in Namibia's economic development in line with the government's 2030 vision. Namibia holds a strategic position on southern Africa's west coast while bordering a number of landlocked nations in the continent's interior: the Walvis Bay Corridor development symbolizes Namibia's desire to become a logistics hub for the region. "Historically, in Africa there have been few port alternatives; that is why Durban has played such a key role in the southern African environment. Durban's competitors on the east coast are inhibited by insufficient infrastructure and inefficiencies so we said, let's look on the west coast. Namibia has a coastline of 1,500 km and Walvis Bay is very strategically located. Walvis Bay can cover southern Angola, Zambia, southern DRC, Zimbabwe, Botswana, and also parts of South Africa," explained Johny Smith, CEO of Walvis Bay Corridor Group.

Namibia is looking to position itself well within Africa's forecast growth. "Looking wider I believe Africa as a whole is in line for growth. Not many regions offer the array of minerals in addition to barren agricultural land as Africa does. The question for me is, which part of Africa will lead such growth? Namibia has the potential to play a significant part in leading growth for the continent. Namibia offers a level of infrastructure and stability well above the majority of countries in the region. Namibia may not have the abundance of minerals seen in other countries across Africa but as a base from which to channel a business's regional activities, Namibia is a very good proposition. All these factors mean that Namibia has the potential to become a hub for the southern African region," Phillip Ellis, managing director of diverse industrial group Gecko Namibia. •

Adding Value: Efforts to Increase Beneficiation in Southern Africa

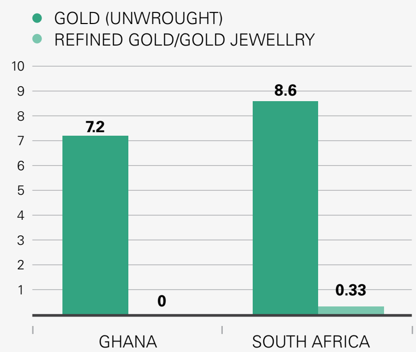
"Obtaining an adequate share of mineral revenue and utilizing it in and equitable manner is crucial. An efficient and transparent fiscal regime should catalyse social, physical and knowledge infrastructure development."
–The Africa Mining Vision, African Union.

Across Africa governments are looking to their geology as a path to socio-economic development. The continent's relatively untapped mineral resources have, for some time now, brought vital foreign exchange into states seeking to raise their living standards and the productiveness of their economies, and become more significant players in the global market. To date, in the vast majority of resource-rich African states, benefits from mineral exploitation have been limited to direct monetary gain from taxes and royalties on mining activity. However, there is a growing realisation that far greater and more sustainable benefits can be obtained from every gram, ounce or tonne of mined minerals through development of value-adding industrial linkages.

Beneficiation is the transformation of a mineral, or a combination of minerals, into a higher-value product, which can either be consumed locally or exported. The majority of Africa's mineral-rich states are not only earning the minimum from their resources, via the export of unprocessed ore, but are also limiting employment benefits, wealth diversification and leaving themselves vulnerable to the fluctuations of the global resource markets. A lack of integration between the extraction of minerals and the wider economy – integration that can be achieved by utilising these minerals for downstream processing – leads to the creation of rentier states, where the concentration of wealth in a sector unreflective of an economy's true capabilities opens opportunity for corruption and threatens Dutch Disease.

This topic is coming to the fore in Southern Africa, as governments keen on stimulating economic development look to their mining industries – among the most established on the continent – as a foundation. Those governments are now, through policy and direct intervention, seeking the local beneficiation of their mineral resources. In 2011 Zimbabwe banned the export of chrome in an effort to develop internal refining capacity. Zambia allows companies to deduct the costs of refining and smelting from the 6% mineral royalty and only applies its 15% export tax to copper and cobalt concentrates, not more refined products. South Africa, the continent's largest and most mature mining market, has made beneficiation policies a central pillar of its "New Growth Path" economic development policy: in 2011's state of the nation address, President Jacob Zuma of South Africa said: "one of government's priorities this year is also to finalise and adopt the beneficiation strategy as the official policy of government, so that we can start reaping the full benefits of our commodities."

VALUE OF REFINED AND UNREFINED GOLD EXPORTS 2012 ($ BILLION)
SOURCE: ECOBANK RESEARCH



These measure have met with mixed results. In Zimbabwe the government relaxed its ban on chrome exports after it was estimated to have cost the country millions of dollars in revenue and thousands of jobs: a lack of capacity meant that those miners who could not access smelters were forced to shut down. Seemingly undaunted, the government has recently proposed a ban on platinum exports in a move that analysts have described as potentially disastrous. In South Africa amendments to the Mineral and Petroleum Resources Development Act (MPRDA), which followed the "New Growth Path" in 2013 and gave the government further control over its post-extraction resources, have brought the government to loggerheads with the mining industry. The Chamber of Mines has called the provision "unconstitutional" and South Africa's legal sector supports this claim, stating that the clause would create legal uncertainty around established and historical rights, transfer of rights, designated minerals, penalties, and the extent of the state's free carried investment in the oil and gas sector. Moreover, the bill promotes "unguided administrative discretion" which runs counter to the constitution's requirement that legislation be administered in a predictable fashion.

Beyond the legal debates or practical application of these policies, however, lies a very simple reality: the mining sector deals in mineral extraction, while mineral beneficiation crosses into the realm of the manufacturing sector. "In mining we know very little about the resources we mine and we have to make large capital decisions on limited knowledge. If we then have to be the supporter of downstream inefficiency, we are setting ourselves up for failure. The possibility that the mining industry will provide effective subsidies to support inefficient industries beggars belief in a modern country trying to assert its regional economic credentials," suggests Mark Cutifani, CEO of Anglo American.

The mining industries of Southern Africa can compete with the best in the world: Botswana ranks in the top 20 of the Fraser Institute's 2012/2013 Annual Survey of Mining Companies; Namibia in the top 30. Yet their manufacturing sectors, for the most part, remain inefficient and underdeveloped compared to the powerhouses of Asia or elsewhere. Shortages of skilled labour, inadequate infrastructure, and regulatory hurdles are challenging enough to solve in one sector: making mining operations dependent on two would appear to be both unfair and rather futile.

Late in 2013, African Rainbow Minerals (ARM) ferrous division chief executive Jan Steenkamp outlined the reasons why the JSE-listed ARM and its joint venture partner Assmang would be beneficiating South African-mined manganese in Malaysia and not South Africa. Steenkamp said that an attractive 15-year electricity supply agreement, at a fixed 2.5% escalation clause, has been concluded in Malaysia, where the electricity is already 12% to 15% cheaper than in South Africa. The 160,000 mt/y, $328-million manganese alloy smelting project in Sarawak, Malaysia, which will be built in partnership with China Steel Corporation and Sumitomo Corporation, had also managed to clinch the last distribution capacity from the first phase of a new hydro power station.

The project would enable the South African company to hold on to the advantage of integrated production know-how boosted by high-grade South African manganese while it continued to search for a longer-term South African beneficiation solution, possibly closer to the source of the manganese in the Northern Cape. "Our commitment to local beneficiation continues," ARM executive chairperson Patrice Motsepe said, yet the understanding is that this commitment depends on South African beneficiation being economically feasible.

The situation is even more extreme in the rest of Sub-Saharan Africa, where in many states associated manufacturing activities remain at a restrictively early stage of development: evidenced by the fact that foreign investment in manufacturing only surpassed that in extractive industries in 2012. In response to the federal ban on copper and cobalt ore exports in the DRC, for example, Governor Moise Katumbi of mineral-rich Katanga province simply rejected the order, claiming the province has insufficient electricity for processing plants. "If you do not have enough electricity you cannot process the concentrates, and as the state we need to furnish electricity to miners. They will continue to export concentrates until there is enough electricity," stated Katumbi, underlining the African beneficiation challenge.

We need only look across the Indian Ocean to see how "beneficiation" polices can backfire. In 2009 resource-rich Indonesia introduced legislation preventing the export of raw materials without certain downstream invest-

MINE, SMELTER AND REFINERY PRODUCTION OF COPPER (2011)

SOURCE: RAW MATERIALS GROUP

ment criteria being met. Originally set to be enforced on January 1st 2014, the policy sought to encourage investment into processing facilities and smelters. After five years, and on the dawn of the law's enforcement, only one of the 19 smelters originally conceived is prepared to begin operations and few are prepared for what implications this ban might have on Indonesia's economy. Speaking in 2013 Syahrir Abubakar, executive director of the Indonesian Mining Association predicted "were the government to proceed with a full export ban, Freeport McMoRan anticipates a loss of 30,000 labourers: for Newmont, 60,000".

Resource-dependant African nations can ill afford such consequences in their own mining sectors. During this extended downturn in global mining markets and with mining labour disputes still rife in South Africa, it seems an inopportune moment for this style of resource nationalism to surface in African economic policy.

This is not to say that beneficiation should not be encouraged, or that governments cannot play a role in encouraging it. Yet policies must attempt to make it economically viable to engage in local beneficiation, rather than force mining companies to work with a manufacturing sector that, in many cases, is simply not there. One could argue that Zimbabwe's chrome ban had a positive outcome – Chinese company Afrochine Smelting completed a $25 million chrome smelter in Selous in November, no doubt motivated by local demand – but it came at a heavy price. The same outcome could have been achieved by the type of policy implemented by Zambia, who early in 2013 did not ban First Quantum Minerals from exporting 60,000 mt of copper concentrates, but told them they would have to exhaust all local processing options first. The financial benefits mining companies operating in Zambia accrue from engaging in local beneficiation may still draw complaints from some in the industry – viewing them more as penalties for those who do not rather than rewards for those who do – yet they have been effective: refined copper and copper alloys (unwrought) account for 63.5 % of the country's copper exports.

Botswana has also enjoyed success in developing downstream diamond processing, with De Beers relocating its formerly London-based rough diamond sales activity to Gaborone. This has been enabled by the government's efforts to establish an attractive downstream environment: infrastructure was provided in the specially constructed Diamond Technology Park, and the government has been praised for adopting reasonable regulations on employment, taxes and currency exchange. The profit threshold for diamond processing in Botswana has now fallen from 1 carat in 2000 to 0.4 carats.

There is some success in South Africa too. In March 2013, Samancor Manganese opened its Metalloys smelter, which contains a 1 billion ZAR furnace from BHP Billiton. This will allow BHP Billiton to beneficiate nearly 30% of its manganese ore production in South Africa and gives a huge boost to the governments beneficiation strategy; adding value to the ore and creating nearly 2,000 jobs. However these companies are unusual: Samancor, right from its 1975 origin, had a processing capability far greater than most miners. BHP Billiton is a multinational giant and – perhaps due to its activities in the oil and gas sector where this is more common – is more vertically integrated than most of its peers in the mining industry.

What this success highlights, however, is the need for collaboration between the industry and government, rather than the imposition of top-down and often unrealistic regulation. "Although the hurdles may sometimes be quite high and the issues difficult and complex, with the close collaboration between big business, communities, government, employees and all stakeholders, it can be done, right here in South Africa," said BHP Billiton Manganese South Africa president Ravi Moodley.

Governments, however pure their intentions may be to their state and society, cannot disregard these fundamentals. Susan Shabangu, South Africa's Minister of Mineral Resources, explained on the sidelines of the Africa Down Under conference in Perth, Australia in August 2013, "we are trying to balance the needs of the country with the export market. The export market cannot come at all costs: it must be done in a sustainable, responsible way, understanding that we still have a country which depends on coal for its energy generation."

More recently she acknowledged that the mining industry has a part to play in defining that balance, suggesting that miners' concerns will be taken into account, and stating that the government is "open minded" about the 2013 alterations to the MPDRA. For the industry, fighting against what appears to be an inevitable move downstream is not in their interests: the larger the role mineral extraction plays in the economy the more likely governments and communities are to look kindly upon it. "Let me be clear: it is not that the mining industry does not support beneficiation, but the laws of economics are simple and all-powerful," explains Anglo American's Cutifani, who also holds the presidency of the Chamber of Mines in South Africa. "South Africa needs to compete where we have competitive advantage, and the most important thing legislators can do is create an environment that incentivises the massive investment needed in the mining industry, first and foremost, but also in the downstream businesses that make economic sense."

If South Africa and its neighbours seek to obtain greater value from their extracted minerals through industrial processes, their priority must be to make such an industry economically viable. If they attempt to force mining companies to engage in downstream processing (for example through the full use of export bans) without making this profitable, the effect will be to hamper mining investment rather than encourage beneficiation. Investment into the infrastructure, workforce and regulations needed for a successful manufacturing industry, combined with incentives for the mining industry to work with it, has been and will continue to be a more effective method for promoting beneficiation. •

South Africa

South Africa has long been the African continent's dominant political and economic power, although in recent years its rate of growth has not kept pace with some of its continental peers (despite its membership of the BRICS). Nonetheless, it maintains an edge. Its mineral industry is one of the strongest in the world: it is the top or one of the top global producers of platinum, vermiculite, chromium, palladium, zirconium, vanadium, rutile, ilmenite, manganese, and gold, along with production of many others.

POPULATION 48,601,098 (July 2013 est)
LAND AREA 1,219,090 sq km
OFFICIAL LANGUAGE(S) IsiZulu, IsiXhosa, Afrikaans, Sepedi, English, Setswana, Sesotho, Xitsonga, siSwati, Tshivenda, isiNdebele
CAPITAL Pretoria
CHIEF OF STATE President Jacob Zuma
HEAD OF GOVERNMENT President Jacob Zuma
GDP (PPP) $578.6 billion (2012 est)
GROWTH RATE 2.6% (2012 est)
GDP PER CAPITA $11,300 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 2.4%, industry: 32.1%, services: 64.9% (2012 est)
Exports: $101.2 billion (2012): gold, diamonds, platinum, other metals and minerals, machinery and equipment
Imports: $106.8 billion (2012): machinery and equipment, chemicals, petroleum products, scientific instruments, foodstuffs
MAJOR TRADE PARTNERS China, Germany, USA, Japan

IMAGE: SHUTTERSTOCK

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

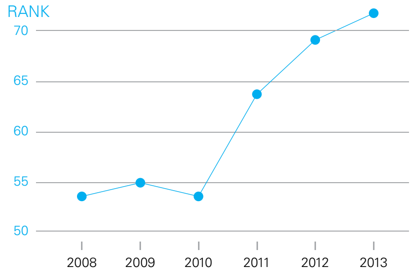
2007 **8.8%**

2012 **9.8%**

These values do not include artisanal mining. AngloGold in 2010 placed mining's direct contribution to the economy at 9.2%, yet its total contribution (including indirect) at 18.7%.

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	35	41	41
Index of Economic Freedom (177)	70	74	75
Global Competetiviness Report (148)	50	52	53

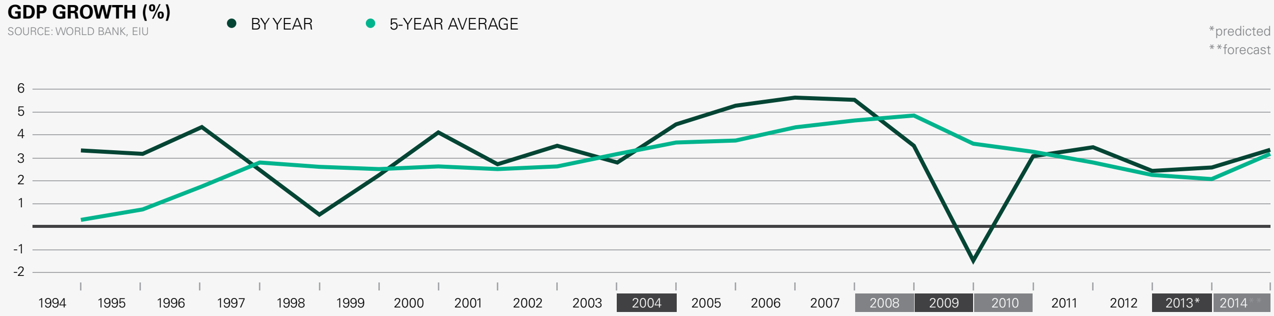
FOREIGN DIRECT INVESTMENT 2012

SOURCE: UNCTAD *inflows, $ million

4572

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



Mbeki is reelected with 70% of the vote, and the ANC wins 279 seats in the National Assembly (out of 400).

Mbeki resigns as president due to accusations of political interference. Motlanthe becomes caretaker president.

Jacob Zuma of the ANC replaces Mbeki as the ANC's candidate and wins 66% of the vote to become president.

South Africa becomes the fifth member of the BRICS. South Africa hosts the 2010 FIFA World Cup, the first time it is hosted in Africa.

A number of labour disputes and strikes affect a number of sectors, including mining.

General election scheduled for April-July. Although the ANC is expected to win, they face growing competition.

INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

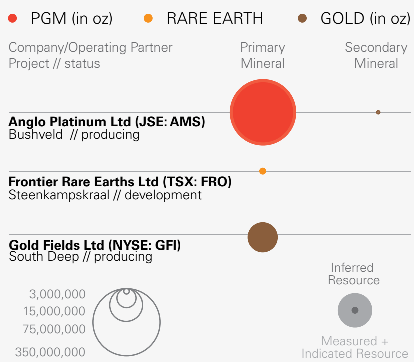
as of 2011
in mt unless otherwise stated

Aluminium	810,000
Antinomy	2,391
Bentonite	120,417
Attapulgite	14,448
Chromium	10,721,360
Coal (anthracite)	2,553,635
Coal (bituminous)	250,203,209
Cobalt	862
Copper	96,600
Diamond**	7,046,644
Feldspar	101,559
Fluorspar	140,000
Gold***	180,184
Gypsum	476,118
Iron Ore	58,056,897
Kaolin	15,220
Lead	54,460
Magnesite	80,000
Manganese	8,651,842
Mica	633
Nickel	43,321
Perlite	400
Phosphate Rock	2,564,820
Platinum***	148,008
Paladium***	82,731
PGM (other)****	58,111
Salt	381,177
Andalusite	295,000
Silver***	73,180
Talc	4,453
Pyrophyllite	121,368
Ilmenite	1,369,000
Rutile	129,000
Uranium	656
Vanadium	21,651
Vermiculite	170,571
Zinc	36,629
Zirconium	383,000

**in carats ***in kilograms

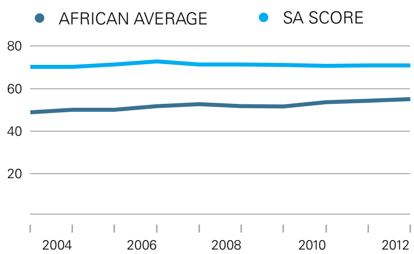
SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



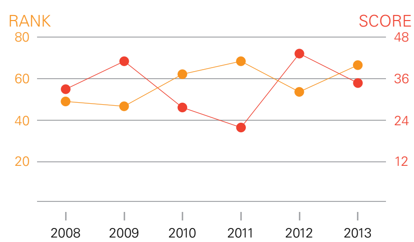
IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



FRASER INSTITUTE ANNUAL SURVEY OF MINING COMPANIES

SOURCE: FRASER INSTITUTE

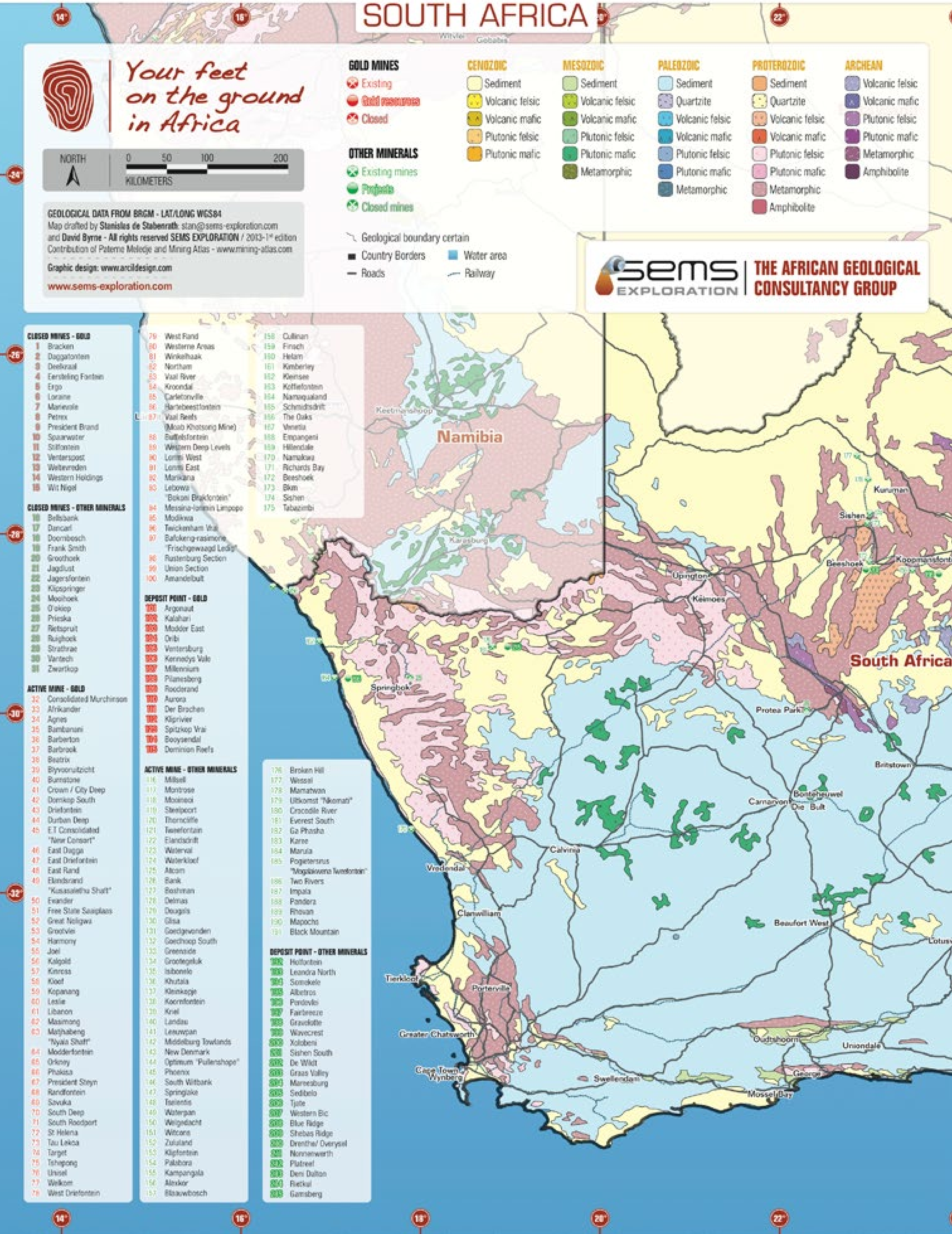


ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

1220

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.



SOUTH AFRICA
Your feet on the ground in Africa
NORTH
0 50 100 200
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com
and David Byrne - All rights reserved SEMS EXPLORATION / 2013-1st edition
Contribution of Paterne Meledje and Mining Atlas - www.mining-atlas.com
Graphic design: www.arcildesign.com
www.sems-exploration.com
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
Geological boundary certain
Country Borders
Roads
Water area
Railway
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
SEMS EXPLORATION
THE AFRICAN GEOLOGICAL CONSULTANCY GROUP
CLOSED MINES - GOLD
1 Bracken
2 Daggafontein
3 Deelkraal
4 Eersteling Fontein
5 Ergo
6 Loraine
7 Marievale
8 Petrex
9 President Brand
10 Spaarwater
11 Stilfontein
12 Venterspost
13 Weltevreden
14 Western Holdings
15 Wit Nigel
CLOSED MINES - OTHER MINERALS
16 Bellsbank
17 Dancarl
18 Doornbosch
19 Frank Smith
20 Groothoek
21 Jagdlust
22 Jagersfontein
23 Klipspringer
24 Mooihoek
25 O'okiep
26 Prieska
27 Rietspruit
28 Ruighoek
29 Strathrae
30 Vantech
31 Zwartkop
ACTIVE MINE - GOLD
32 Consolidated Murchinson
33 Afrikander
34 Agnes
35 Bambanani
36 Barberton
37 Barbrook
38 Beatrix
39 Blyvooruitzicht
40 Burnstone
41 Crown / City Deep
42 Doornkop South
43 Driefontein
44 Durban Deep
45 E.T Consolidated "New Consort"
46 East Dagga
47 East Driefontein
48 East Rand
49 Elandsrand "Kusasalethu Shaft"
50 Evander
51 Free State Saaiplaas
52 Great Noligwa
53 Grootvlei
54 Harmony
55 Joel
56 Kalgold
57 Kinross
58 Kloof
59 Kopanang
60 Leslie
61 Libanon
62 Masimong
63 Matjhabeng "Nyala Shaft"
64 Modderfontein
65 Orkney
66 Phakisa
67 President Steyn
68 Randfontein
69 Savuka
70 South Deep
71 South Roodport
72 St Helena
73 Tau Lekoa
74 Target
75 Tshepong
76 Unisel
77 Welkom
78 West Driefontein
79 West Rand
80 Westerne Areas
81 Winkelhaak
82 Northam
83 Vaal River
84 Kroondal
85 Carletonville
86 Hartebeestfontein
87 Vaal Reefs (Moab Khotsong Mine)
88 Buffelsfontein
89 Western Deep Levels
90 Lonmi West
91 Lonmi East
92 Marikana
93 Lebowa "Bokoni Brakfontein"
94 Messina-lonmin Limpopo
95 Modikwa
96 Twickenham Vrai
97 Bafokeng-rasimone "Frischgewaagd Ledig"
98 Rustenburg Section
99 Union Section
100 Amandelbult
DEPOSIT POINT - GOLD
101 Argonaut
102 Kalahari
103 Modder East
104 Oribi
105 Ventersburg
106 Kennedys Vale
107 Millennium
108 Pilanesberg
109 Rooderand
110 Aurora
111 Der Brochen
112 Kliprivier
113 Spitzkop Vrai
114 Booysendal
115 Dominion Reefs
ACTIVE MINE - OTHER MINERALS
116 Millsell
117 Montrose
118 Mooinooi
119 Steelpoort
120 Thorncliffe
121 Tweefontein
122 Elandsdrift
123 Waterval
124 Waterkloof
125 Atcorn
126 Bank
127 Boshman
128 Delmas
129 Dougals
130 Glisa
131 Goedgevonden
132 Goedhoop South
133 Greenside
134 Grootegeluk
135 Isibonelo
136 Khutala
137 Kleinkopje
138 Koornfontein
139 Kriel
140 Landau
141 Leeuwpan
142 Middelburg Towlands
143 New Denmark
144 Optimum "Pullenshope"
145 Phoenix
146 South Witbank
147 Springlake
148 Tselentis
149 Waterpan
150 Welgedacht
151 Witcons
152 Zululand
153 Klipfontein
154 Palabora
155 Kampangala
156 Alexkor
157 Blaauwbosch
158 Cullinan
159 Finsch
160 Helam
161 Kimberley
162 Kleinsee
163 Koffiefontein
164 Namaqualand
165 Schmidtsdrift
166 The Oaks
167 Venetia
168 Empangeni
169 Hillendale
170 Namakwa
171 Richards Bay
172 Beeshoek
173 Bkm
174 Sishen
175 Tabazimbi
176 Broken Hill
177 Wessel
178 Mamatwan
179 Uitkomst "Nkomati"
180 Crocodile River
181 Everest South
182 Ga Phasha
183 Karee
184 Marula
185 Pogietersrus "Mogalakwena Tweefontein"
186 Two Rivers
187 Impala
188 Pandora
189 Rhovan
190 Mapocho
191 Black Mountain
DEPOSIT POINT - OTHER MINERALS
192 Holfontein
193 Leandra North
194 Somkele
195 Albetros
196 Pondovlei
197 Fairbreeze
198 Gravelotte
199 Wavecrest
200 Xolobeni
201 Sishen South
202 De Wildt
203 Grass Valley
204 Mareesburg
205 Sedibelo
206 Tjate
207 Western Bic
208 Blue Ridge
209 Shebas Ridge
210 Drenthe/ Overysel
211 Nonnenwerth
212 Platreef
213 Deni Dalton
214 Rietkul
215 Gamsberg
Namibia
South Africa
Keetmanshoop
Karasburg
Upington
Keimoes
Kuruman
Sishen
Beeshoek
Koopmansfontein
Springbok
Protea Park
Britstown
Carnarvon
Bontebheuwel
Die Bult
Calvinia
Vredendal
Clanwilliam
Beaufort West
Tierkloof
Porterville
Greater Chatsworth
Oudtshoorn
Uniondale
Cape Town
Wynberg
Swellendam
George
Mossel Bay
14°
16°
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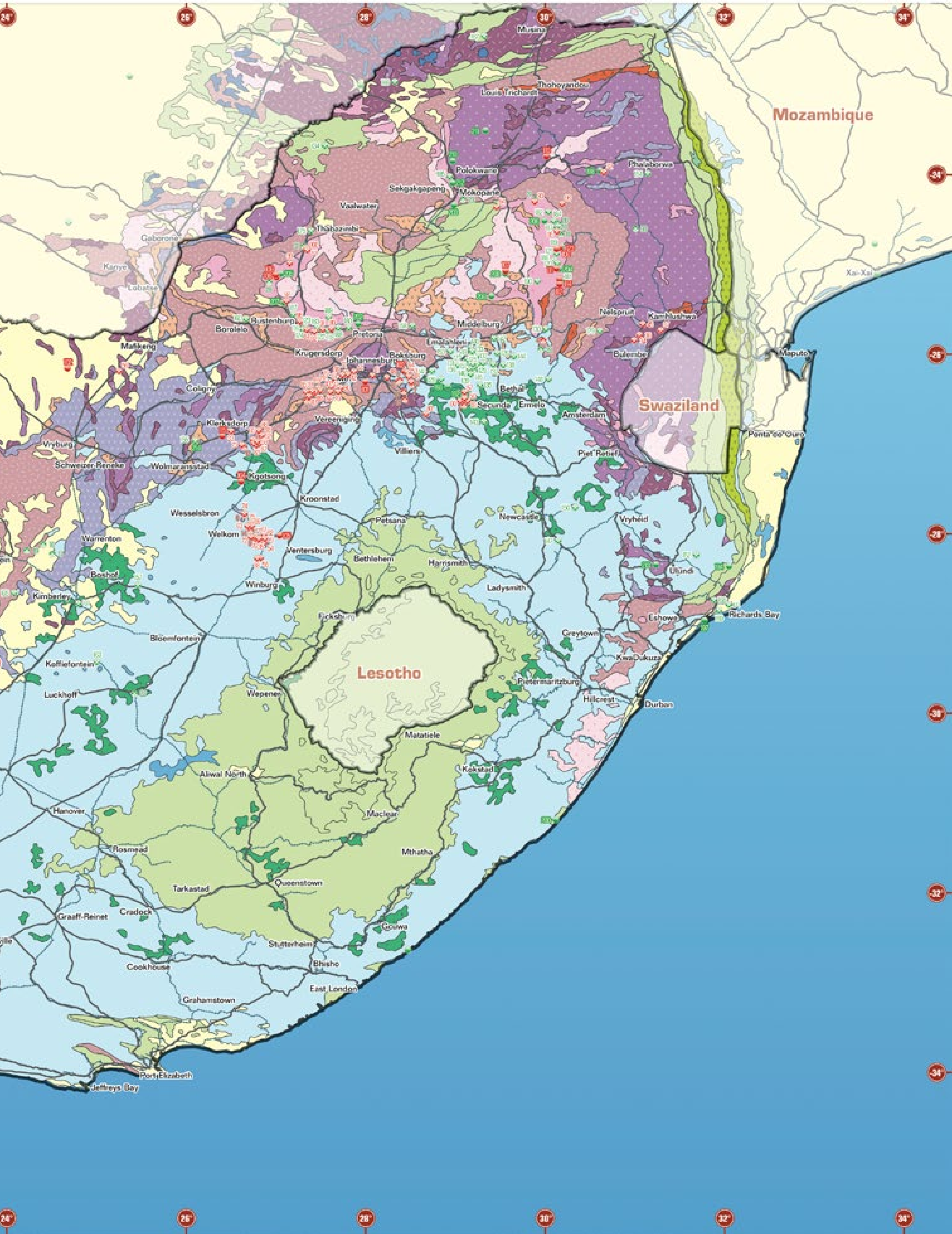
-32°



24°
26°
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30°
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Musina
Thohoyandou
Louis Trichardt
Mozambique
Phalaborwa
Polokwane
Sekgakgapeng
Mokopane
Vaalwater
Thabazimbi
Gaborone
Kanye
Lobatse
Xai-Xai
Nelspruit
Kamhlushwa
Rustenburg
Boroleio
Pretoria
Middelburg
Mafikeng
Krugersdorp
Emalahleni
Johannesburg
Boksburg
Maputo
Bulembe
Coligny
Bethal
Secunda
Ermelo
Swaziland
Amsterdam
Klerksdorp
Vereeniging
Ponta do Ouro
Vryburg
Villiers
Piet Retief
Schweizer-Reneke
Wolmaransstad
Kgotsong
Kroonstad
Wesselsbron
Newcastle
Vryheid
Petsana
Welkom
Warrenton
Ventersburg
Bethlehem
Harrismith
Ulundi
Boshof
Ladysmith
Winburg
Kimberley
Ficksburg
Eshowe
Richards Bay
Bloemfontein
Greytown
KwaDukuza
Koffiefontein
Lesotho
Pietermaritzburg
Luckhoff
Wepener
Hillcrest
Durban
Matatiele
Kokstad
Aliwal North
Hanover
Maclear
Rosmead
Mthatha
Tarkastad
Queenstown
Cradock
Graaff-Reinet
Gcuwa
Stutterheim
Cookhouse
Bhisho
East London
Grahamstown
Port Elizabeth
Jeffreys Bay
-24°
-26°
-28°
-30°
-32°
-34°

INTERVIEW WITH

Roger Baxter

COO
CHAMBER OF MINES, SOUTH AFRICA

Could you give us a brief overview of the South African sector and its role in the South African economy?
South Africa has one of the most developed mining sectors in the world. It is the world's fifth largest mining economy from a GDP perspective. China has the world's largest mining sector, followed by the United States, Australia and Canada. South Africa mines some 60 minerals and exports to over 100 countries in the world. The sector creates 1.4 million jobs in South Africa (500,000 directly and about 900,000 jobs through the multiplier and induced effects) and earns more than 50% of the country's merchandise exports.

What is the target growth rate for the mining sector and what constraints need to be removed in order to achieve this target?
We believe that growth rates of between 3% and 5% are possible, if the constraints can be resolved. On infrastructure if we just look at the bulk commodities, we could add another 30 to 40 million mt of coal exports through Richards Bay Coal Terminal, if through collaborative partnership the rail infrastructure is properly developed. The same applies to iron ore where exports can be taken up from 60 million mt to 85 million mt. The size of the manganese market can be trebled if there were access to heavy haul rail. While South Africa hosts 80% of the world's high-grade manganese, the sector only accounts for 15% of global supply because of inefficient and costly rail. Looking just the three bulk commodities; coal, iron ore and manganese, we could add another R80 billion to R100 billion worth of export revenue in a three to five year period if the collaborative partnerships develop the necessary efficient infrastructure. Electricity is also a binding constraint for the sector and has been since 2007 and while Eskom has to deliver Medupi and Kusile, private participation in this sector to supplement existing players is crucial to break the short and medium term logjam in supply.
On the regulatory side, there has been a lot of work to promote certainty and nationalization of the mines has been taken off the table. The government has put the MPRDA amendment bill together and the industry has worked hard with the government to address a number of different constraints through this bill. The Davis-tax review that is coming up is also an important issue and industry will be able to give their input as far as that is concerned. Treasury is also in the process of putting carbon taxes in place and we would like to see that certain sectors such as mining are not unduly prejudiced by that. Our view on the regulatory side is that we are emerging with greater certainty. South Africa has a legal framework, which is congruent with global practices. This year the industry will be assessed on where it is at a transformation level and the audit process is currently underway.

How has South Africa progressed in terms of stabilising the mining labour market?
In February 2013 the mining companies collectively signed a peace accord with all unions driven by Minister of Mineral Resources, Susan Shabangu. In July we signed the Deputy President's Framework Agreement for a Sustainable Mining Industry. The focus was to stabilize the labour market and to encourage stakeholders to work within the labour laws to air their grievances. In 2013 illegal strike activity has diminished. There has also been a lot of emphasis on reducing the level of violence and intimidation and progress has been made. There are expectations from the unions on what the mining companies can afford to pay, and at the same time there are companies who have been struggling especially in the platinum and gold sectors where prices have fallen off significantly while costs have risen. Companies are working with the unions and government to find solutions to restructure because of the viability of these businesses.

Why does South Africa remain a competitive mining destination?
South Africa has a number of ratings that are excellent even at the global level. Just looking at the World Economic Freedom report highlights the efficiency of South Africa's capital markets, the sophistication of the banks and the protection of investors. On auditing standards, South Africa is ranked number one in the world and is amongst the top 10 countries from an investor protection perspective. The nationalization debate over the last three years has been the dark shadow that has been cast over mining in South Africa, but the right decisions have been made. •


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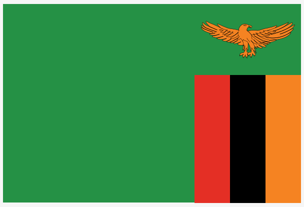
Zambia



After independence from the British, Zambia was ruled by 18 years by the founding president. Since 1991, however, it has established a democratic system. Economically, it has high and stable growth and shows a long-term improvement in business environment indicators. Zambia is one of the world's largest producers of copper and cobalt and is a significant global producer of gemstones. Potential also exists for gold, iron ore, zinc, lead, manganese and nickel.

POPULATION 14,222,233 (July 2013 est)
LAND AREA 752,618 sq km
OFFICIAL LANGUAGE(S) Bemba, Nyanja, Tonga, Lozi, Lunda, Kaonde, Luvale, English
CAPITAL Lusaka
CHIEF OF STATE President Michael Chilufya Sata
HEAD OF GOVERNMENT President Michael Chilufya Sata
GDP (PPP) $23.68 billion (2012 est)
GROWTH RATE 6.5% (2012 est)
GDP PER CAPITA $1,700 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 20.2%, industry: 33.5%, services: 46.3% (2012 est)
Exports: $8.346 billion (2012): copper/cobalt, cobalt, electricity; tobacco, flowers, cotton
Imports: $7.279 billion (2012): machinery, transportation equipment, petroleum products, electricity, fertilizer, foodstuffs, clothing
MAJOR TRADE PARTNERS South Africa, China, DRC, Switzerland

Image: Atlas Copco technicians taking a break after servicing a blast hole drilling machine

MINING SECTOR CONTRIBUTION TO GDP

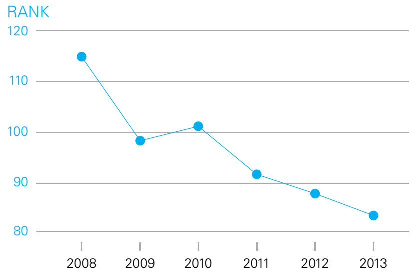
SOURCE: AFRICAN ECONOMIC OUTLOOK

2007	4.7%
2012	2.2%

These values do not include artisanal mining. In 2012 the Minister of Mines said the sector accounted for 9% to 10% of GDP, which he planned to double to 20% by 2020.

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



FOREIGN DIRECT INVESTMENT

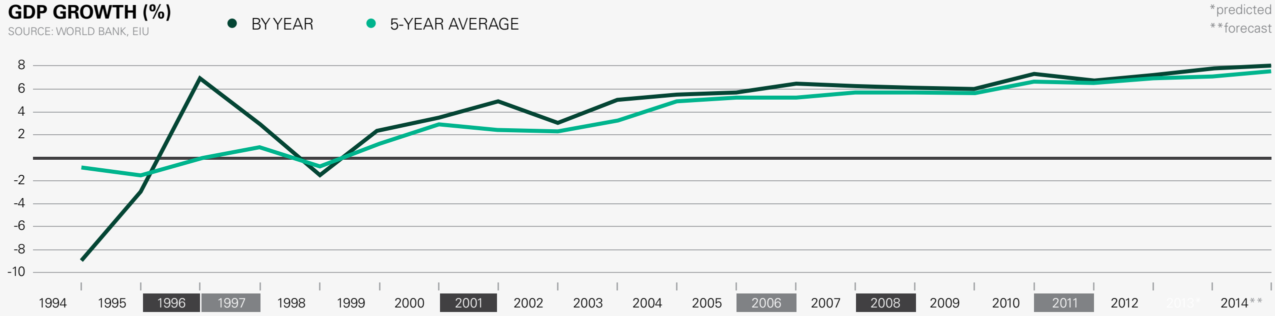
SOURCE: UNCTAD

2009	695
2010	1729
2011	1108
2012	1066

*inflows, $ million

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



Elections are boycotted by the main opposition party, UNIP, and Frederick Chiluba of the MMD is reelected.

An attempted coup d'etat fails. 84 people, including former president Kenneth Kaunda, are arrested.

Levy Mwanawasa of the MMD wins the presidential election. The MMD lost parliamentary majority, but regained it in byelections.

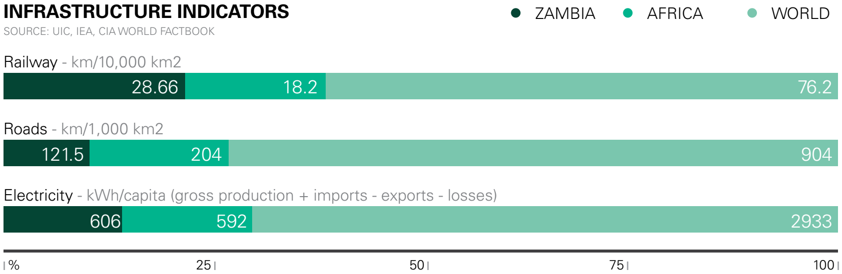
Mwanawasa is reelected with 43% of the vote and the MMD win 75 of the 159 national assembly seats.

Mwanawasa died in a Paris hospital and was suceeded by his vice president Rupiah Banda.

20 years of MMD rule come to an end when Michael Sata of the Patriotic Front wins the 2011 elections.

INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK



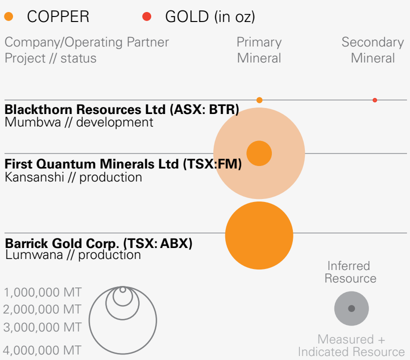
BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	84	90	83
Index of Economic Freedom (177)	96	93	88
Global Competetiviness Report (148)	113	102	93

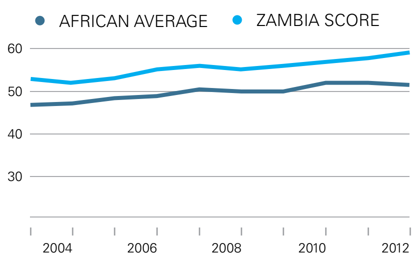
SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

as of 2011
in mt unless otherwise stated

Beryl	6
Cobalt	5,956
Copper	739,759
Gold**	3,493
Nickel	2,869

***in kilograms

STATUS OF THE MINING CODE

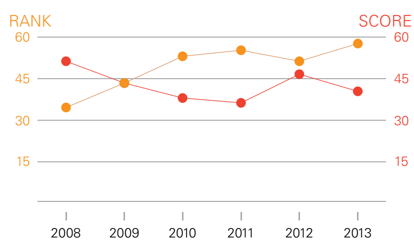
UNDER REVIEW

Corporate Income Tax	0,3
Mineral Royalties	3%-5%
State Participation	0%*

*there has been talk of the state taking a 25% to 35% stake in mining projects

FRASER INSTITUTE ANNUAL SURVEY OF MINING COMPANIES

SOURCE: FRASER INSTITUTE

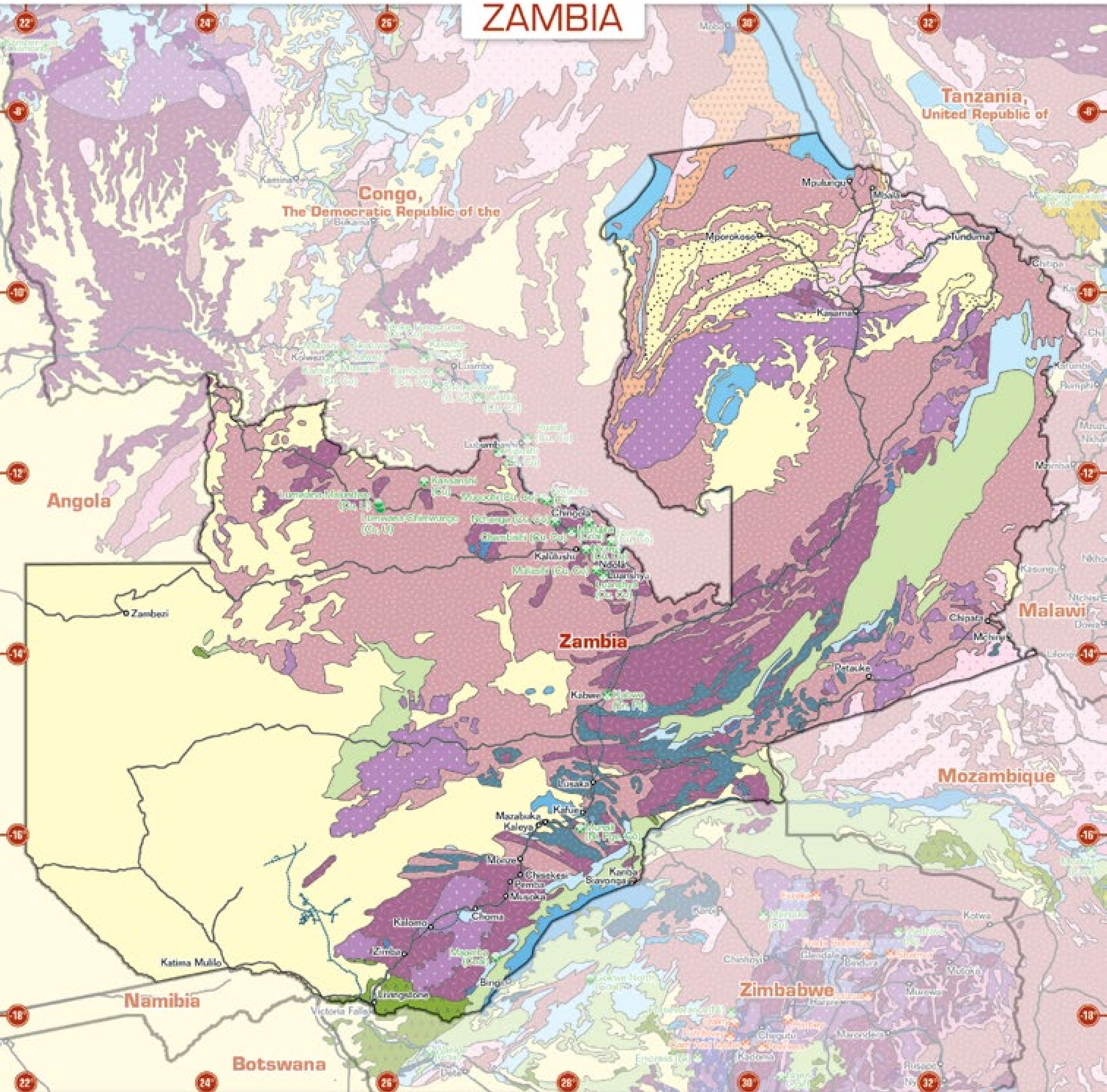


INFLATION

SOURCE: WORLD BANK

2010	8.5%
2011	6.4%
2012	6.5%

ZAMBIA



Your feet on the ground in Africa

NORTH

0 50 100 150 200

KILOMETERS

GOLD MINES
- Existing
- Gold resources
- Closed

OTHER MINERALS
- Existing mines
- Projects
- Closed mines

CENOZOIC	MESOZOIC	PALEOZOIC	PROTEROZOIC	ARCHEAN
Sediment	Sediment	Sediment	Sediment	Volcanic felsic
Volcanic felsic	Volcanic felsic	Quartzite	Quartzite	Volcanic mafic
Volcanic mafic	Volcanic mafic	Volcanic felsic	Volcanic felsic	Plutonic felsic
Plutonic felsic	Plutonic felsic	Volcanic mafic	Volcanic mafic	Plutonic mafic
Plutonic mafic	Plutonic mafic	Plutonic felsic	Plutonic felsic	Metamorphic
	Metamorphic	Plutonic mafic	Plutonic mafic	Amphibolite
		Metamorphic	Metamorphic	
			Amphibolite	

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

GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84

Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com and David Byrne - / 2013-1st edition

Contribution of Paterne Meledje and Mining Atlas - www.mining-atlas.com

Graphic design: www.arcildesign.com

www.sems-exploration.com

SEMS EXPLORATION

THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honorable Christopher Yaluma

Minister of Mines, Energy and Water Development
THE REPUBLIC OF ZAMBIA

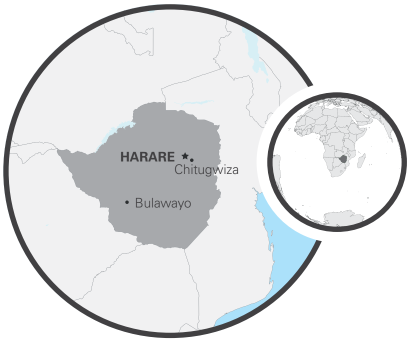
As the top copper producer in Africa, Zambia is also seeking to diversify into other minerals. In this context, what is the government's strategy for the mining industry for the next five years?
Zambia has been a mining country for decades, but the industry unfortunately lost its momentum during the 1980s when the government privatized the mines. Since then a new momentum has been created with foreign private investors buying stakes in the country's mines as we have experienced at Mopani, Konkola, Lumwana and Kalumbila. The first step of our government's five-year strategy includes confirming our mineral potential by mapping out both the zones that remain unexplored and the areas for which the data is outdated. Much of the current data is between 20 and 40 years old or was produced in bits and pieces by different companies. Our goal is to provide foreign investors with an updated database on every province's mining potential, which will also serve as a marketing tool to attract foreign interest. We hope to complete this data set in the next two years, which will then allow us to develop a long-term mining strategy. It will be essential for Zambia to diversify into other industries beyond mining, because our copper and mineral resources are finite. We see countries like Kenya experiencing significant growth without having any resource wealth, but rather depending on sectors such as agriculture or tourism. Our first step will be to diversify beyond copper, encouraging investors to explore and produce minerals including manganese, nickel, uranium, and rare earth minerals like gemstones and gold. Recently an investor approached me with an offer to establish a gold refinery during the next few months. We would like to encourage investors to develop other mineral deposits, but they cannot do so until we can provide them with a reliable data set.

The creation of a database for Zambia's mining potential will no doubt be crucial to attracting foreign investment, but how do you plan to increase local participation in the industry and ensure trickle-down effects into the Zambian economy?
Despite several efforts by our government we have not been as successful as we would have liked in increasing local participation in the mining industry, because of different factors. We can establish a favorable legislative environment, but the local investors also need to take the next step. We would like to create a regulatory instrument encouraging or even requiring foreign investors to partner with local companies. There would be two options where a foreign company would either be required to provide a small percentage of its revenues to the local chiefdom or it would be asked to team up with a local partner. Our aim is to monitor the extent to which the Zambian people are being engaged by measuring either the growth in equity stakes or the development of local skills. It is crucial that foreign investors help develop the skills and competencies of the local population.

The two main challenges that mining companies have identified relates to infrastructure, including poor roads and rails and an unreliable power supply. What efforts are you undertaking to address these challenges?
We are well aware that the mining industry requires a power supply that is available 24 hours a day, 365 days a year, but unfortunately Zambia still has serious power generation constraints. For the past 20 to 30 years, no new power plants have been established in the country and we cannot continue to rely on infrastructure built in the 1980s. Since 2008, we have started working on several new power plants, but efforts need to be ongoing to meet the growing future demand.
A number of noteworthy hydropower plants coming online in the next five years include: Kariba North Bank Extension project (360 MW), to be completed in 2013; Itezhi-Tezhi Hydro Power Project (120 MW), to be completed in February 2015; Kafue Gorge Lower Hydro Project (750 MW), to be completed in 2017; as well as Kalungwishi (240 MW). In addition, the Batoka Gorge hydro-electricity project is expected to generate 800 MW for both Zambia and Zimbabwe, for a total of 1,600 MW. Feasibility studies for Batoka Gorge have already been completed, and it will soon be going into tendering. Regarding coal-fired power generation, we have two Indian companies working at Maamba Collieries. Nava Bharat Energy, which is currently mining coal, will establish a 900 MW power plant, with the first 300 MW feeding into the grid in the next two years. EMCO has also recently established a power purchase agreement for the establishment of a 600 MW plant, with 300 MW to be generated in the first phase. •

Zimbabwe

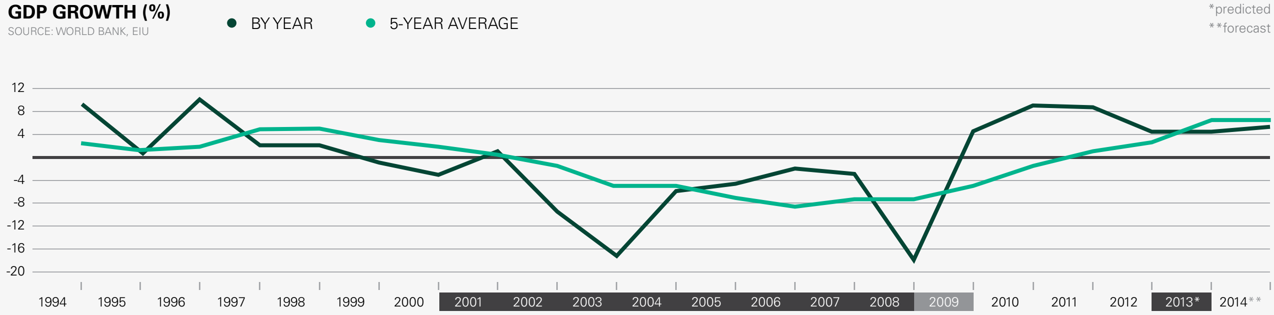
Zimbabwe was a British colony, after which it spent 14 years under a white minority government. In the past decade the rule of Robert Mugabe has brought the country to the brink of economic ruin and international pariah status, yet a small degree of political compromise after the 2008 election has restored economic growth and some degree of foreign investment. Zimbabwe has some of the world's largest chromite, platinum-group metals and diamond resources in the world, and substantial gold and coal resources.



POPULATION 13,182,908 (July 2013 est)
LAND AREA 390,757 sq km
OFFICIAL LANGUAGE(S) English
CAPITAL Harare
CHIEF OF STATE Executive President Robert Gabriel Mugabe
HEAD OF GOVERNMENT Executive President Robert Gabriel Mugabe
GDP (PPP) $6.909 billion (2012 est)
GROWTH RATE 5% (2012 est)
GDP PER CAPITA $500 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 20.3%, industry: 25.1%, services: 54.6% (2012 est)
Exports: $3.314 billion (2012): platinum, cotton, tobacco, gold, ferroalloys, textiles
Imports: $4.675 billion (2012): machinery and transport equipment, other manufactures, chemicals, fuels, food products
MAJOR TRADE PARTNERS South Africa, China, Democratic Republic of the Congo

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



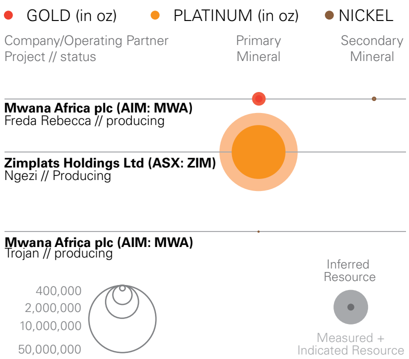
Zimbabwe's "Lost Decade" is a time of economic collapse and hyperinflation. Inflations peaked at 79,600,000,000% in November 2008. Zimbabwe went from being the "breadbasket of Africa" to a net food importer, with 5.1 million of its 12.6 million population struggling to obtain one meal a day by 2007. A cholera epidemic affected over 1 million people. Zimbabwe was suspended from the Commonwealth of Nations in 2002 and in 2003 the country voluntarily terminated its membership. 2005 elections were heavily criticised and resulted in a victory for Robert Mugabe and his ZANU-PF party. 2008 elections saw the opposition Movement for Democratic Change – Tsvangirai (MDC-T) party make substantial ground (it was widely suspected that they won a majority) and a power-sharing agreement was reached, with Mugabe remaining as president and Morgan Tsvangirai becoming prime minister.

Dollarisation of the economy by Finance Minister Patrick Chinamasa ends hyperinflation.

Peaceful elections are held, won by Robert Mugabe and ZANU-PF. A new constitution is approved by 94.5% of voters.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

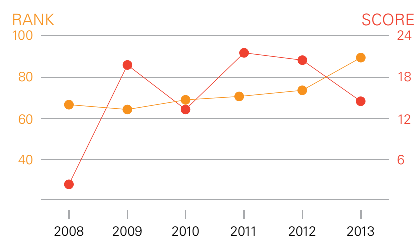
as of 2011
in mt unless otherwise stated

Chromium	1599,079
Coal (bituminous)	2,562,054
Cobalt	174
Copper	6,555
Diamond**	8,502,648
Gold***	12,993
Graphite	7,252
Magnesite	169
Nickel	7,992
Phosphate Rock	46,047
Platinum	10,827
Palladium	8,422
PGM (other)****	2,162

**in carats ***in kilograms
****in kilograms, excluding platinum and palladium

FRASER INSTITUTE ANNUAL SURVEY OF MINING COMPANIES

SOURCE: FRASER INSTITUTE



ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

873

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

MINING SECTOR CONTRIBUTION TO GDP

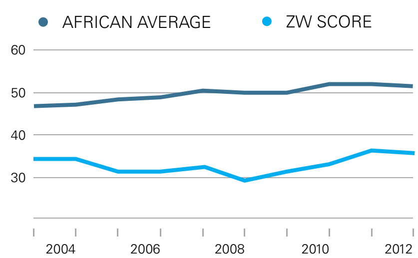
SOURCE: AFRICAN ECONOMIC OUTLOOK

2011 14.9%

These values do not include artisanal mining. The USGS placed the 2008 value at 13.4% of GDP, and a report by the French Ministry of Foreign Affairs placed the value at 28% in 2011.

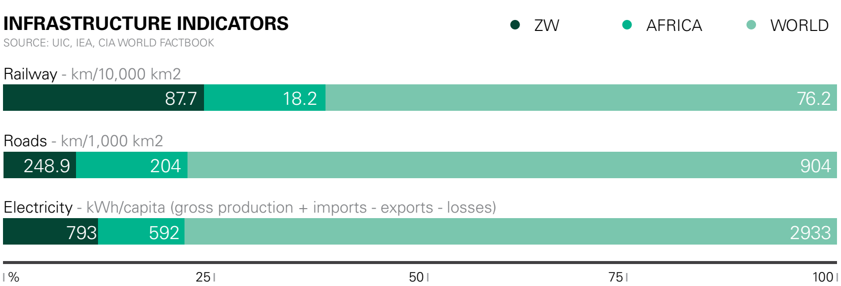
IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

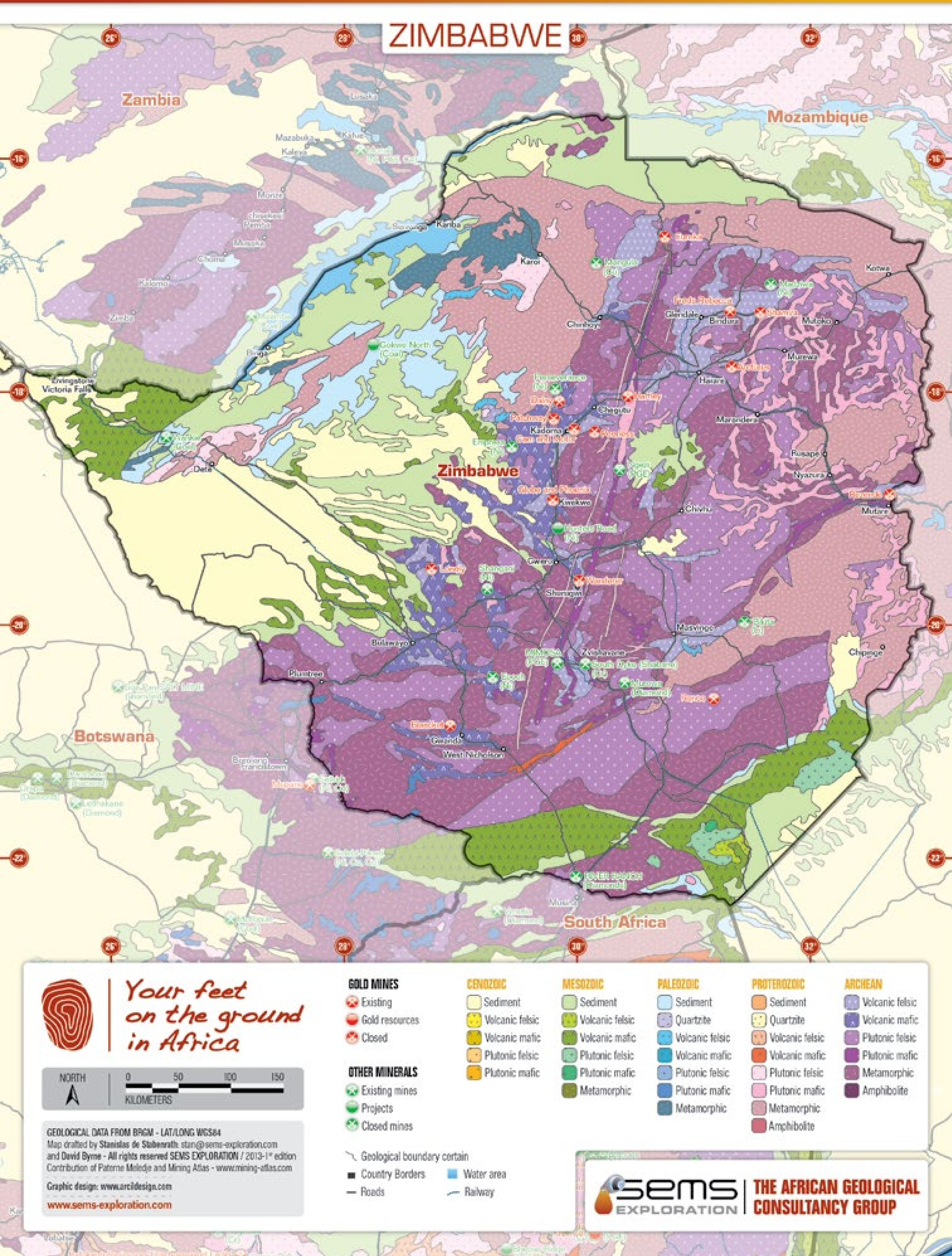
SOURCE: UIC, IEA, CIA WORLD FACTBOOK



BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	171	168	170
Index of Economic Freedom (177)	178	175	176
Global Competetiviness Report (148)	132	132	131



ZIMBABWE
Zambia
Mozambique
Botswana
South Africa
Zimbabwe
Lusaka
Mazabuka
Kafue
Kalewa
Monze
Choma
Kalomo
Zimba
Livingstone
Victoria Falls
Siavonga
Kariba
Karoi
Chinhoyi
Glendale
Bindura
Mutoko
Kotwa
Murewa
Harare
Chegutu
Kadoma
Marondera
Rusape
Nyazura
Mutare
Chivhu
Kwekwe
Gweru
Shurugwi
Masvingo
Zvishavane
Bulawayo
Plumtree
Gwanda
West Nicholson
Chipinge
Binga
Dete
Musina
Francistown
Eureka
Freda Rebecca
Shamva
Hartley
Dalny
Patchway
Cam and Motor
Pickstone
Globe and Phoenix
Wanderer
Lonely
Blanket
Renco
Redwing
Mapane
Gokwe North (Coal)
Shangani (Ni)
Empress (Ni)
Epoch (Ni)
Mimosa (PGE)
Unki (PGE)
Ngezi (PGE)
Hunters Road (Ni)
Murowa (Diamond)
Bikita (Li)
Madziwa (Ni)
Mangula (Cu)
Perseverance (Ni)
Hwange (Coal)
Selebi-Phikwe (Ni, Cu, Co)
Letlhakane (Diamond)
Orapa (Diamond)
Venetia (Diamond)
RIVER RANCH (Diamonds)
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
Geological boundary certain
Country Borders
Water area
Roads
Railway
Your feet on the ground in Africa
NORTH
0 50 100 150
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com and David Byrne - All rights reserved SEMS EXPLORATION / 2013-1st edition
Contribution of Paterne Meledje and Mining Atlas - www.mining-atlas.com
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THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honourable W. K. Chidakwa

Minister of Mines and Mining Development
THE REPUBLIC OF ZIMBABWE

What are the goals of the Ministry for the next five years?
Over the next five years we will strive to ensure that the investment environment has a positive impact on the fundamentals of the economy and to create favourable investment conditions for companies operating or who wish to operate in Zimbabwe. We have identified and are looking at the need to provide infrastructure consistent with a higher level of development of the mining sector. We must spend time to ensure that there is reliable power, which in itself must also result in more mining as we increase our thermal energy capacity that can feed from our coal deposits. There are also certain commodities that you cannot move without rail and we must therefore ensure that our rail system is back on stream and not only back on stream, but functioning with the latest technologies and we must have a good road network. We must have reliable water supplies as we use vast amounts of water in the process through which platinum is currently being extracted and this is not the only process that requires water.
We see the mining sector as the centrepiece for our economic recovery and the mining sector must provide the resources that will ensure that the rest of the economy grows. As we are mining raw material, it has the potential to be converted into something much more refined and therefore the mining sector becomes the basis from which industrialization can happen. The industrialization that we have had so far has largely been achieved through value addition and beneficiation in our agricultural sector and the future of the Zimbabwean economy will largely depend on the ability to value add our resources. To be able to achieve our goals we need to improve the efficiency with which mining titles are granted and streamline the process. We are also looking at the Mines and Minerals Act where the original idea was to amend the existing Act but the extent of the changes requires us to consider starting anew. The idea is that we develop our thinking in the policy and once the policy is clear we can adjust the Mines and Minerals Act and the Precious Minerals Act with inspiration from the policy document. I would like to have the principles ready and in the office by the first quarter of 2014 and to have it passed by the first session of parliament next year.

Zimbabwe's indigenization laws may seem daunting to new investors who have to concede 51% to an indigenous entity. Can you elaborate on Zimbabwe's indigenization policies?
Indigenizing the economy and mainstreaming the locals into economic development and is not limited to Zimbabwe. Local participation in the economy gives the foreign investor the confidence and it gives a solid base to grow from. Locals must also not see foreign investors as foreigners who are coming to usurp their wealth, but rather as partners with whom to grow the wealth so that there may be mutual benefit for both foreigners and locals. Historically the question of rightful ownership has been overlooked in colonial Africa and now resource nationalism is gripping all countries as people start to realize that instead of putting it to the balance sheet of he who comes from the outside to mine it, it belongs to the people who own and live on the land. I am very clear about the need to Zimbabwean shareholdings in any company in Zimbabwe. We are looking for is sustainable development and responsible investment. Investors must also understand that if the operations that they want to pursue in Zimbabwe add value in other areas, the economy will grow and result in much greater benefits across sectors, we are willing to negotiate. When we look at the development of the refinery, for example we get more than just the refinery; all the platinum companies will use the refinery; it will create high income specialized jobs; it will bring research and development and our university graduates will be used.

What would you say are some of the positive differentiating factors that make Zimbabwe a good investment destination?
Zimbabwe is a very unique country: young in some cases and old in others. In platinum mining, we are only 10 years old with our deepest mine at only 305 m deep so the cost of production for most of our minerals are low and we have competitive inflation rates. The Zimbabwean work ethic is unrivalled in Africa and even after losing many of our skilled labour force to mining destinations in Australia and the United States; we still have Zimbabweans here who are specialized and technical. •

As one of Africa's most notorious and much publicized mining countries, Zimbabwe has been on a challenging journey over the last 15 years. Zimbabwe has come to be known as a country rife with regulatory uncertainty and political instability, yet the situation is rapidly changing and the overwhelming verdict from both the private and the public sector is that the time to for serious investors to look to Zimbabwe is now.

The Zimbabwean economy has shown impressive GDP growth figures over the last few years, albeit coming from a low base. Although growth slowed in 2013 as Zimbabweans took to the polls for the general election, between 2009 and 2012 the average annual growth rate was 7.1%. Expectations are the Zimbabwe will boast an average growth rate of 4.7% from 2013 to 2017, as the growth in mining production stabilizes over the medium term. Such positive growth rates should serve as an incentive for foreign direct investment flows into any country and in Zimbabwe foreign direct investment increased more than eightfold from $51.6 million to $450 million between 2008 and 2012.

Despite this, Zimbabwe remains a high-risk country, a perception supported by its ranking in the World Bank's Doing Business 2014 report: a bleak 170 out of 189 countries. The mining sector, which is central to the plan for Zimbabwe's economic recovery, is suffering from a severe capital shortage.

REGULATORY ENVIRONMENT

With the 2013 elections, a new Minister of Mines and Mining Development has been appointed. A revamped ministry claims to be serious about changing Zimbabwe's image and proving that they are willing to negotiate when it comes to indigenization. While the mining sector will play a pivotal part in the Zimbabwean government's plan for economic recovery, policy will be spearheaded and inspired by the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (Zim Asset) that has replaced the Medium Term Plan that had been implemented in the years prior to the 2013 elections. Zim Asset will run from 2013 up to 2018, aiming to achieve a GDP growth rate of 10% by 2018, with the key focus falling on food security and nutrition, social services and poverty eradication, infrastructure and utilities and value addition and beneficiation. With mining set to be catalyst of growth, the Ministry of Mines and Mining Development is working on revising Zimbabwe's Mines and Minerals Act and Precious Stones Act.

Zimbabwe's law system is a combination of Roman-Dutch and English law and, contrary to perceptions, has well-developed mining laws based on its long history as a mining jurisdiction. "Mining legislation in Zimbabwe, such as the Mining and Minerals Act, is credible and is based on the equivalent South African legislation," said Steven Gamble, director and solicitor at Norton Rose Fulbright South Africa.

The Mines and Minerals Act provides security of tenure and has provisions for acquisition, maintenance and relinquishing of mining rights. This Act is currently under revision, with key changes being made to ensure that it also accounts for environmental management and indigenization, and makes provisions for continued exploration in Zimbabwe. Value addition, an area that is receiving attention from governments around Africa, is also on the agenda. "We have to see what is possible to do in Zimbabwe given our state of development," explained John B. R Chikombero, CEO of the Zimbabwe Chamber of Mines. "We have to look at areas where we can get greater value for the mineral endowment of the country. The policy is currently that minerals need to be beneficiated to the maximum extent possible before they are exported."

Another key focus will be on Zimbabwe's diamonds after all EU sanctions on Zimbabwe's diamonds exports have been lifted. Zimbabwe have been welcomed in Antwerp to auction their precious stones and announced in November 2013 that the country will go above and beyond to ensure that their diamonds remain on the auction table by fully complying with the Kimberly Process Certification Scheme (KPCS). There will also be enhanced security at all diamond mines in Zimbabwe, starting on January 1st 2014 with CCTV cameras overlooking every part of the mining operation and both government and the relevant private company having access to 24-hour surveillance. Acid cleaning for diamonds, to enhance their value, will also become mandatory for diamond miners as well as further exploration of more the valuable kimberlites: companies have tended to opt for alluvial diamond mining that is less costly.

Zimbabwe's Indigenization and Economic Empowerment Act is often on the forefront of discussion when looking at the country as an investment destination. The Act stipulates that 51% of any foreign mining company operating in Zimbabwe be owned by a "designated entity" such as an Indigenization or Economic Empowerment Fund, the Zimbabwe Minerals Development Corporation, community share ownership trust or an indigenous previously-disadvantaged entity. While the Zimbabwean government is unapologetic about this policy, it has indicated that it is open to dialogue with companies who care to find an optimal solution and who bring greater economic gain to the table. Richard Mbaiwa, CEO of the Zimbabwe Investment Development Authority remarked that "investors must start seeing indigenization as a commercial business transaction. It is not just giving away 51% of your company, as the local entity will have to bring its share to the table. Moreover, there is room for negotiation when the investor is serious and its intentions are right."

The majority of companies who are serious investors in Zimbabwe are in negotiations with the government trying to find the optimal way to comply with indigenization policies. Conversely, many companies in the services sector are keeping their heads low and waiting to see of the indigenization cup may pass them by. Companies such as JR Goddard Contracting (JRG), however, could serve as an example of embracing this policy direction. "At this

INTERVIEW WITH

Professor Francis P. Gudyanga

Permanent Secretary, Ministry of Mines and Mining Development
THE REPUBLIC OF ZIMBABWE

Zimbabwe has received much negative press over the last 15 years. What can you say to possible investors who shy away from Zimbabwe's mining sector due to its portrayal in international media?
Having just returned from Antwerp and South Africa, this is a very timely question. Zimbabwe used to be a big item on the agenda when it came to talks on the Kimberley Process Certification (KPC), but since the European Union has lifted all sanctions on Zimbabwean diamonds, we are very pleased to talk about it. The perception that Zimbabwe is not an ethical mining country is no longer applicable and is misplaced. We see resurgence in investment inquiries, particularly in our big volume minerals such as gold, diamonds, platinum, iron and coal. Transaction and business is facilitated by the fact that Zimbabwe now has a multi-currency system. We are implementing indigenisation legislation that stipulates that 51% of business must be owned by an indigenous element and find that the new companies are complying with this law and we welcome discussions and negotiations when it comes to committed and serious investors.

What are the key challenges that need to be addressed for Zimbabwe's mining industry to flourish again?
At the moment the sector is gripped by cash liquidity constraints and we would like more investment to flow in from outside of Zimbabwe. The fact that we have lost a lot of skills to mining sectors abroad during the period of hyperinflation has left some skills gaps in the value chain that also need to be addressed and is also linked to the past negative image of the country, but I believe we have gone over this hump. Looking at the medium-term plan for the industry, we are in the processing of revising the Mines and Minerals Policy. We have entered a phase where we are working on a raft of incentives that will encourage investors to come into Zimbabwe. The new policy covers areas like investment and indigenization and issues that have been neglected such as environmental sustainability. Another issue that will be addressed in the new policy is exploration, especially in gold and diamonds where companies have tended to extricate alluvial deposits without investing in further exploration. As they mine, they must also invest in further exploration so that we attain a better picture of the mineral endowment of the country. We are a new team in the ministry and we are serious about pushing for the new policy to be implemented early in 2014. We also expect to update the Precious Stones Act and we expect this legislation to be passed early in 2014.

Do you have a final message for investors looking at Zimbabwe as a possible mining investment destination?
We would like to invite any serious investor to come and visit Zimbabwe to see and feel the opportunities that are here. We are confident that you will like it from all aspects. We have a large number of minerals, particularly coal, iron, chrome, platinum and diamonds. The country is open for investment in all those minerals. We are looking for serious investors and not speculators raising funds abroad on exploration licenses that they do not intend to use. We have a "use it or loose it" policy. There is a lot of work to be done, but things are happening in Zimbabwe and the future for mining is looking bright at last. •

time when our economy is severely challenged, we have realised the necessity to evolve and develop potential partnerships with selected indigenous persons with whom we can structure appropriate synergies and vision. Key to this process must be the guaranteed control of an income stream that is sufficient to recover ones financial entitlement in full," says Jim Goddard, CEO of JRG, a Zimbabwean mining contractor.
Indigenization is a controversial subject, and there are certainly severe and justified concerns surrounding Zimbabwe's policy. Nonetheless, there are companies who have managed to make it work to the benefit of all parties: JR Goddard Contracting being one such example. Goddard explains how JRG structures their ventures with local mining companies: "In all our joint venture associations, JRG endeavours to recover the costs of our specific input and the value that we add to the partnership at full commercial rates; without necessarily benefiting from the profit in the exploitation of the actual resource itself. Our profit must be targeted and derived from that which is our core business."
However mining services companies choose to address this issue, there is a service sector that is ready to support any mining company wishing to venture into Zimbabwe. Companies such as Volvo Penta, Machinery Exchange, Tarcon, Craster and Curechem are there to lend their local expertise.
The recently appointed government has already shown that it is willing and able to negotiate when it conceded 56% of ownership in the recent ESSAR deal involving the revival of the old Ziscosteel plant, which the government views as essential to revive Zimbabwe's struggling manufacturing sector. "For the first time in a while, government and private sector are sitting down and discussing incentives that benefit the greater economy," noted Chikombero of the Zimbabwe Chamber of Mines. "It is important that the industry must also have the freedom to discuss their needs with ministry and we see now that is possible and that the government is listening."

PRODUCTION AND EXPLORATION

GOLD

Zimbabwe had initially built its mining sector on gold: the country's Archean terrain boasts one of the world's highest yields per square kilometer. The sector comprises a few big players, such as Mwana Africa's Freda Rebecca mine and Caledonia's Blanket mine, with a large number of artisanal miners. At its peak in 1999, the country produced 27 mt of gold, compared to 4.2 mt in 2009 due to the difficult operating environment of the "Lost Decade": the economic crisis that gripped the country between 2001 and 2008. There is a lot of scope for expansion of production capacity at the existing mines.

PLATINUM

Over the last 10 years platinum has taken the spotlight. Zimbabwe sits on the world's second largest platinum reserves behind South Africa, with mining companies such as Zimplats and Mimosa mine (Impala Platinum) and Unki mine (Anglo Platinum) operating in the sector. Zimbabwe's platinum production had increased by almost 20% from January to September in 2013 to 9,838.61 kg. With the three majors producing 430,000 oz a year, there is a drive to increase production to 500,000 oz in order to justify setting up a local smelter.

DIAMONDS

Zimbabwe is the fourth largest diamond producer in the world and sits upon an estimated 30% of the world's diamond resources with the Marange fields responsible for the majority of the country's diamond production. Zimbabwe currently has five noteworthy diamond-mining firms operating in the country, namely Marange Resources, Mbada Diamonds, Anjin, Diamond Mining Corporation and Murowa Diamonds. The state-owned ZMDC has a stake in all diamond companies and the Ministry is in the process of deciding how to best structure this sector through the amendment of the Precious Stones Act. A major issue to be addressed is whether to have a plethora of players and thus make more licenses available, or whether it is best to follow the example of countries such as Botswana or South Africa, where the diamond sector is largely dominated by a limited number of producers. The diamond sector in Zimbabwe is set to grow with the abolition of the EU sanctions that were imposed on the country's diamonds, provided that resources and expertise can be secured to start the more costly process of mining the higher-value kimberlites.

COAL

Zimbabwe has always been reliant on coal mining for the country's electricity generation needs. "JRG is involved in the processing, sales and marketing of the coal produced to maximise efficiencies and by so doing, we also guarantee the recovery of our mining and processing costs. The Hwange resource that we have immediate access to is estimated at one million tonnes of coal. At our current production rate this resource will last five years," explains Goddard.

Apart from the well-known reserves at Hwange, there are also new opportunities in coal mining that are surfacing in the southern parts of the country.

BASE METALS

Amongst Zimbabwe's vast variety of up 60 minerals the country boasts with impressive nickel, chrome, copper and iron ore reserves. Nickel dominates the country's base metal production in terms of value, with Empress Nickel and Bindura Nickel Corporation dominating in this area. The chrome that is found in the Great Dyke is world class and value adding in this sector is seen as the key to reviving the Zimbabwean manufacturing sector. Zimbabwe has high quality iron ore grading from 40% Fe and above and should see a resurgence as soon as ESSAR and government is able to finalize the Ziscosteel transaction and the steel plant is once again in production. Copper production has been in decline recently, mostly due to a lack of exploration.

INDUSTRIAL MINERALS

Zimbabwe also hosts a range of industrial minerals such as asbestos, lithium, graphite, limestone, granite and barite. Mining contracting company WGB Kinsey has recently embarked on an exciting project with Mabwe Minerals who operate a Barite mine in Shamva. "Mabwe is producing barite and limestone at its Dodge mine in Shamva. The main operations are set up around barite and the mining itself has been quite complex. Mabwe has also recruited the help of Steinbock from Switzerland for their expertise in barite mining. We have been mining since August and have been sorting ore by eye, and further sampling, until such time as we have assessed and approved the correct processing solution. We currently have stockpiles of about 30,000 mt of product containing high quality barite that is ready to be processed. We are also excited to start working with the limestone, as there is a definitive market for that in the country," says Anthony Kinsey, managing director of WGB Kinsey and Company.

BREAKING LIQUIDITY CONSTRAINTS

For the last 15 years the world has been painfully aware of the trials that Zimbabwe has been facing. Yet the resilience of the mining supporting services sector during this time has been commendable.

> In the past, Zimbabwe may have been wary of certain investment but now there is a stronger desire to make Zimbabwe work. We see a reengagement with many countries in the world, and we believe that the current government wants to see the country rise again.
>
> - Anthony Kinsey, Managing Director, WGB Kinsey and Company Ltd

Barzem has been in existence for over 75 years representing Caterpillar and its products. Barzem is a fully indigenized company that currently has 153 employees with offices and a workshop in Harare and Bulawayo, as well as an office in Hwange. Barzem also has a presence in the sugar estates in the low-veld and an office in Mutare. "Barzem is one of a few equipment suppliers who have managed to grow even during the 'Lost Decade'," explained Ruston Gumbo, managing director of Barzem. "The key to this growth was being able to build an excellent management team prior to the great crash that has been together through the hard times. Our clients can see the value that we have created for them over the years and now that things are getting better in Zimbabwe, we are optimistic that there will be plenty of opportunities for us."

The damage wrought on what was once "Africa's breadbasket" by the hyperinflation of the early 2000s cannot be refuted, but Zimbabwe is ready to rebuild its economy and its reputation. It has the foundations on which to do this: infrastructure is relatively well developed and it can boast a skilled labor force. It must also put in place adequate financing, however, if it wants its indigenization policies to be feasible. The lack of liquidity is visible in the country; especially in the mining sector on which the country plans to anchor the economy while other sectors are rebuilt.

This lack of capital has affected explorers, producers and service companies alike. "It is certainly very tough to break into the mining contracting sector in Zimbabwe, especially due to the very high cost of machinery and shortage of capital," said Anthony Kinsey, owner of local mining contractor WGB Kinsey. "There is very little competition in this sector in Zimbabwe. As an election year, 2013 has been slow, but it seems to be improving as the elections have passed without any major disruptions or drastic change."

Zimbabwe's own financial sector is unable to issue long-term credit and is in need of restructuring and recapitalization. Zimbabwe plans to leverage its mineral wealth to establish long-term lines of credit and for this will need to rely on the assistance and expertise of international institutions such as the African Development Bank and the IMF. However, that is not all that it will take to lift the country out of its liquidity trap. It now becomes a question of time and dialogue to prove that Zimbabwe is committed to policy stability and to creating a favorable investment climate for much needed outside investment. •


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Specialists in large-scale earthworks, civil construction and infrastructure development.
J R Goddard Contracting (Pvt) Ltd currently own and operate 120 major items of earth moving equipment and boasts a transport fleet of over 100 vehicles and ancillary equipment. They have enjoyed major achievements in their field, successfully completing over 200 contracts since inception.
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Large Scale Earthworks
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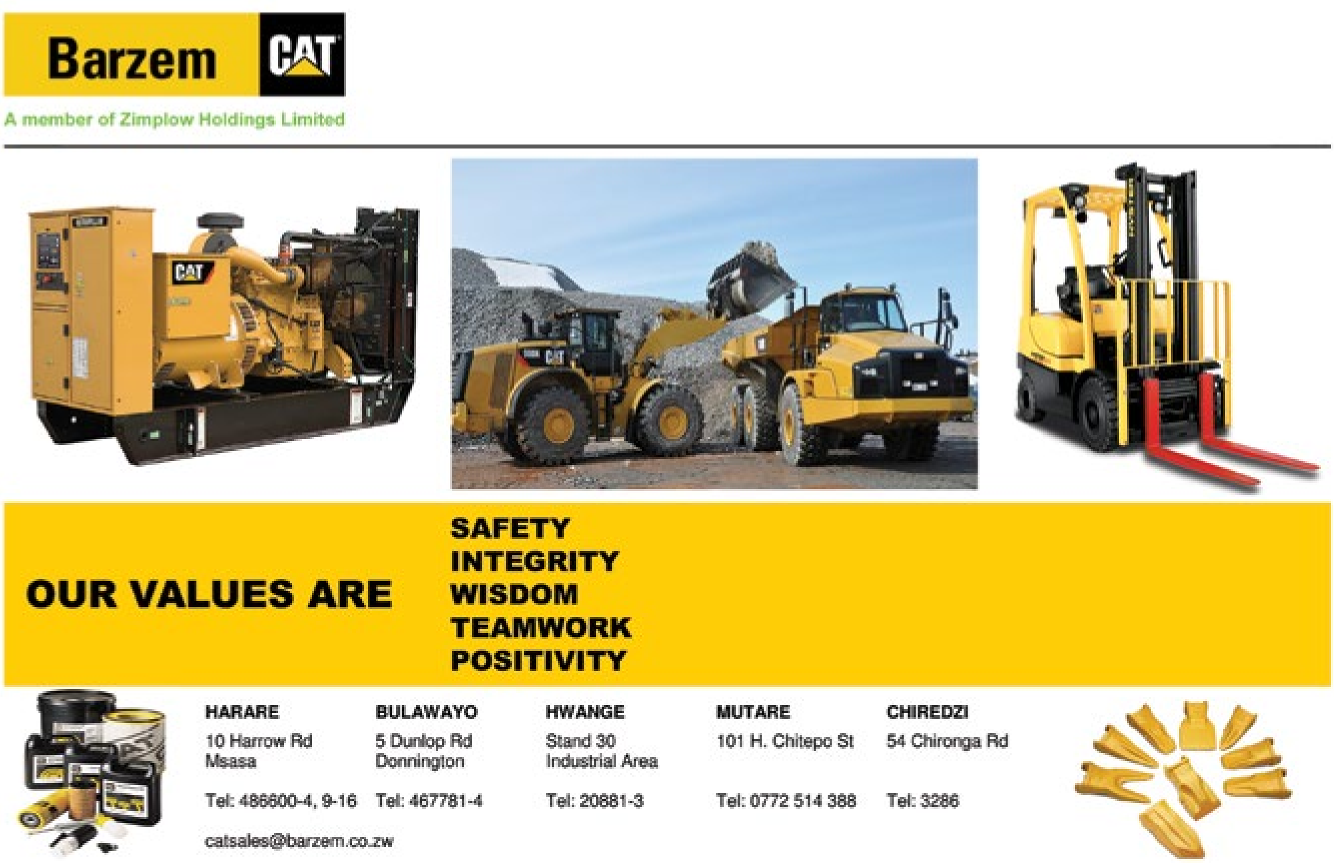
Infrastructure Development
Building Works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ZIMBABWE

MORE THAN JUST A DIAMOND IN THE ROUGH

- Zimbabwe is a mineral rich country with great potential for further discoveries.
- The country has a huge and highly diversified mineral resource base.
- About 60% of the country's land is said to comprise of ancient rocks renowned worldwide for hosting rich varieties of minerals resources including platinum, diamonds, gold, base metals (e.g. nickel, copper, zinc and lead) and industrial minerals (limestone, phosphates, clay and dolomites).
- Zimbabwe has got the second largest deposits of platinum in the world.
- Approximately 30% of global known diamonds reserves are in Zimbabwe, now fully complaint with KPC.
- The sector contributes about 50% of the country's total export earnings.
- A primary objective of the new government plan is value addition and beneficiation in the country whenever and wherever possible.
- Industry growth in the medium to long term depends on the ability to attract investment into current and new projects, as well as investments into infrastructure fundamental to sustainable development of mining, i.e. power and railroad transportation. Investment of $5-7 billion is needed to grow the sector as following: platinum 40%, gold 33%, diamonds 11%, coal 8%, chrome 4% and nickel 4%.
- The opportunities for exploration are vast and will be central to brining the mining sector up to full speed.
- Zimbabwe is changing and the time to invest in Zimbabwe's Mineral wealth is now. The Government of Zimbabwe invites all serious investors to come and visit. We are open for dialog and recognise the importance of the private sector contribution, both local and foreign in creating wealth to the benefit of all.

More then just a diamond in the rough.

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WEST AFRICA

Benin
• Burkina Faso
Cape Verde
• Côte d'Ivoire
the Gambia
• Ghana
• Guinea
Guinea-Bissau
Liberia
Mali
• Niger
• Nigeria
• Senegal
Sierra Leone
Togo

NATIONAL PARK NIOKOLO KOBA, SENEGAL
IMAGE: SHUTTERSTOCK

West Africa has, in many ways, taken the mantle of Africa's most exciting investment destination. In 2013 it is estimated to have been the continent's fastest growing region, with average GDP growth of 6.7%, and this trend is forecast to continue in 2014, with 7.4% growth. In the mining sector it has been spoken of as gold's next frontier for the past few years, yet its iron ore sector is arguably its most dynamic: a 2012 estimate by business consulting firm Frost & Sullivan put proven reserves at 400 million mt by 2020.

Seven countries from West Africa (Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Niger, Nigeria and Senegal) make it to our top 20 this year, reflecting the strength of the region, although there are some notable exemptions. Mali, one of Africa's largest gold producers, holds undoubted geological potential yet misses out due to the instability in the early part of the year. Although the crisis in northern Mali has been solved, the country remains politically fragile. Sierra Leone and Liberia are attracting much positive attention for their stability and mining industry growth, after a troubled history. Liberia especially deserves mention for an initiative whereby they trained journalists in the mining industry (launched by the US Ambassador to Liberia): inaccurate understanding and reporting of the industry in many countries leads to a lack of criticism when companies behave poorly, but also inaccurate reporting that can lead to unjustified anger against the sector.

Nonetheless, both sectors, in our view, remain at too early a stage in their development to be included this year: although this is not to deny their substantial promise. "First, we see a bright light at the end of the tunnel in Ghana, where we have two new mines coming up. However, all things being equal, we see equally great prospects in Sierra Leone, Liberia and Guinea. As a mining services provider, with the requisite regional experience, we believe they have the greatest opportunities to offer us, given huge amount of natural resources they are endowed with, most of which is still untapped or mined only on an artisanal level," explained Henry Ayisi Tandoh, the late general manager of mining contractor Rocksure International.

Of the countries we did include, no common theme unites all of them. Ghana is undoubtedly the mining powerhouse of the region, and offers a political stability that rivals anywhere in the world. This point was reinforced by the calm and courteous conclusion of the legal challenge to the 2012 elections in August 2013. Proven geological wealth and a plethora of service companies also add to its attractiveness. Yet the current regulatory framework – especially implemented and proposed tax legislation – places a high burden on companies. Nigeria, at the other end of the spectrum, has a sector that remains small and substantially underdeveloped, and faces uncertainty in its regulatory environment due to the upcoming elections in 2015 and the continued activities of Boko Haram in the country's north. However, the government should be commended on the mining legislation it has put in place, which promises financial incentives and a streamlined process for mining and exploration companies.

The other West African countries in our top 20 fall somewhere between those two extremes. Guinea appears to have borne the worst of the ethnic clashes that affected it in the third quarter of 2013 and, with legislative elections in September, seems to be building a foundation for future growth. Although questions still circulate over the Simandou iron ore project, Sable Mining Africa Ltd's Nimba iron ore project has gone from strength to strength. Côte d'Ivoire has made a more comprehensive return to stability from its far more serious political crisis in 2011, and the continued development of its mining industry is supported by developments to the Port of Abidjan and its related inland infrastructure (a railway connecting Niger and Burkina Faso to Côte d'Ivoire is due to being construction next year).

"On a regional scale, our infrastructure is relatively good. Côte d'Ivoire has a good network of roads and for our work in the mining sector; we are able to use roads going right up to the mines. For example, our client Taurian's project is 900 km from Abidjan and reachable entirely by road," explained Jean-Philippe Messou, general manager at mining service provider Sam & Lo. "This facilitates our work. Because we come from logging origins, we are accustomed to working in areas without good roads. Working with base metals, the challenge is to find lower cost transport solutions for the high volumes of production that we are transporting. It is better to use rail cars; however it is difficult to gain access to the rail in Côte d'Ivoire."

In Burkina Faso and Senegal, on the other hand, the mining industry spent 2013 consolidating and continuing the steady growth of the past few years, despite the poor commodity prices. News coming out of Burkina Faso was of juniors announcing positive results and receiving mining permits, and in Senegal IAMGOLD announced its first mineral resource estimate at the Boto gold project. Indeed, some companies view Senegal in such a favourable light that they have chosen it as their regional hub, rather than the arguably more established Ghana. "Senegal is a regional hub, in comparison to Mali, Guinea and Mauritania," said Mahmoud Rozz, general manager of equipment provider Bernabé Senegal. "The country has a smooth administrative framework, which allows for the possibility to import and export thanks to administrative policies that are easy to understand and respected. There is reasonably quick and easy access to goods and human resources, in comparison to other ECOWAS countries that are developing."

Niger, the world's fourth largest uranium producer, is a country that struggled in 2013 due to the low price of its primary commodity, security concerns, and difficult negotiations between the government and the country's largest producer Areva. Nonetheless, its progress towards relative political stability following the 2011 elections deserves credit and positive efforts are being made to diversify its mineral base. "Resource exploration in Niger is now growing, with over 100 licenses granted and the government actively seeking to promote between 400 to 500 more. We believe that the successes of these resource exploration companies will prove what we already believe to be true: that our country's mineralization is both rich and diverse. We expect that platinum and nickel deposits will be found within the country," stated Mamadou Dikouma, Secretary General of Ministry of Mines and Industrial Development for the Republic of Niger.

There is no doubt that the region has struggled in the past year, but initiatives such as the effort to harmonise regional mining codes shows that West Africa knows it must act proactively to attract investment. "The economic downturn and drop in gold price have indeed hit West African mining activity very hard. Since the middle of 2012 we have seen a significant drop in investment in West Africa because of security concerns, a third factor contributing to decreased activity," said Simon Meadows Smith, managing director of SEMS Exploration. "There has been some negative news coming out of the region from a security perspective — particularly in Mali — but this has since stabilized. SEMS has been able to maintain our team in the region and the sector is working to regain investor confidence." •

> We continue to look at more opportunities in West Africa, depending on the gold price, investment conditions, mining codes and good projects... We want to stay a leader and we want to expand.
>
> \- Oumar Toguyeni,
> Regional Vice President, West Africa,
> IAMGOLD

Burkina Faso

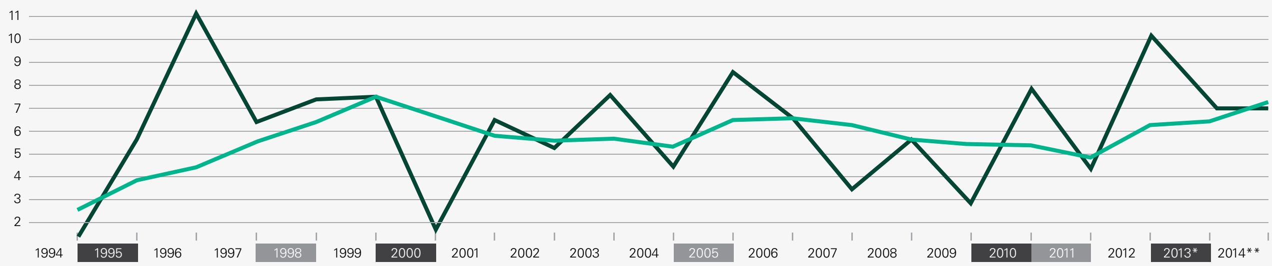
Burkina Faso has not done well since its independence from France in 1960: numerous coups eventually led to president Compaoré seizing power in 1987. In his time in power there have been grave concerns over human rights abuses and political repressions, and the country remains among the poorest in the world. Burkina Faso's mining industry has taken off since the opening of the first commercial gold mine in 2007: gold is now the country's primary export commodity. Manganese is also produced.

Population 17,812,961 (July 2013 est)
Land Area 274,200 sq km
Official Language(s) French
Capital Ouagadougou
Chief of State President Blaise Compaore
Head of Government Prime Minister Luc-Adolphe Tiao
GDP (PPP) $24.03 billion (2012 est)
Growth Rate 7% (2012 est)
GDP per Capita $1,400 (2012 est)
Economic Sector Breakdown agriculture: 34.4%, industry: 23.4%, services: 42.2% (2012 est)
Exports: $2.734 billion (2012): gold, cotton, livestock
Imports: $2.868 billion (2012): capital goods, foodstuffs, petroleum
Major Trade Partners China, Cote d'Ivoire, Turkey, France

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU

*predicted
**forecast



Burkina Faso holds its first multi-party elections, in which Blaise Compaoré retained his presidency.

Compaoré is relected as president for a second time at the head of the Congress for Democracy and Progress party.

The constitution is amended to limit a president's tenure to two terms.

Compaoré is elected for a third time, with the 2000 constitutional amendment judged to be inapplicable retroactively.

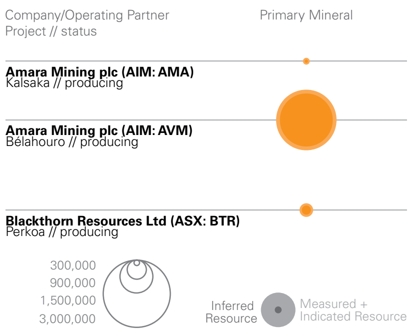
Compaoré enjoys a third election victory with 80.2% of the vote.

A wave of popular protests over a student death and army mutiny gives rise to rumours that Compaoré fled the capital.

Thousands protest plans to create a Senate, which critics say will allow Compaoré to increase his power.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

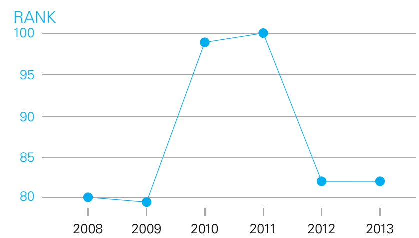
as of 2011
in mt unless otherwise stated

Gold**	31.711
Manganese	60.000
Phosphate Rock	2.400
Salt	5.000

**in kilograms

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

1001

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

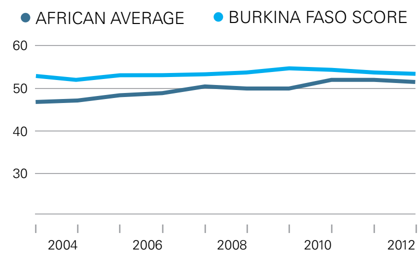
2007 **0.5%**

2011 **12.9%**

These values do not include artisanal mining. Diamonds formerly contributed roughly 94% of the total mining contribution to GDP according to the OECD, although this is falling.

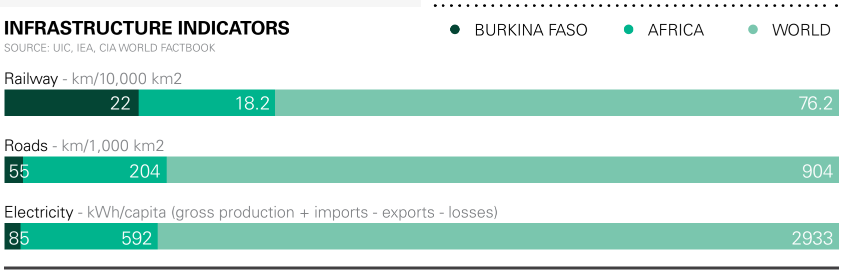
IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

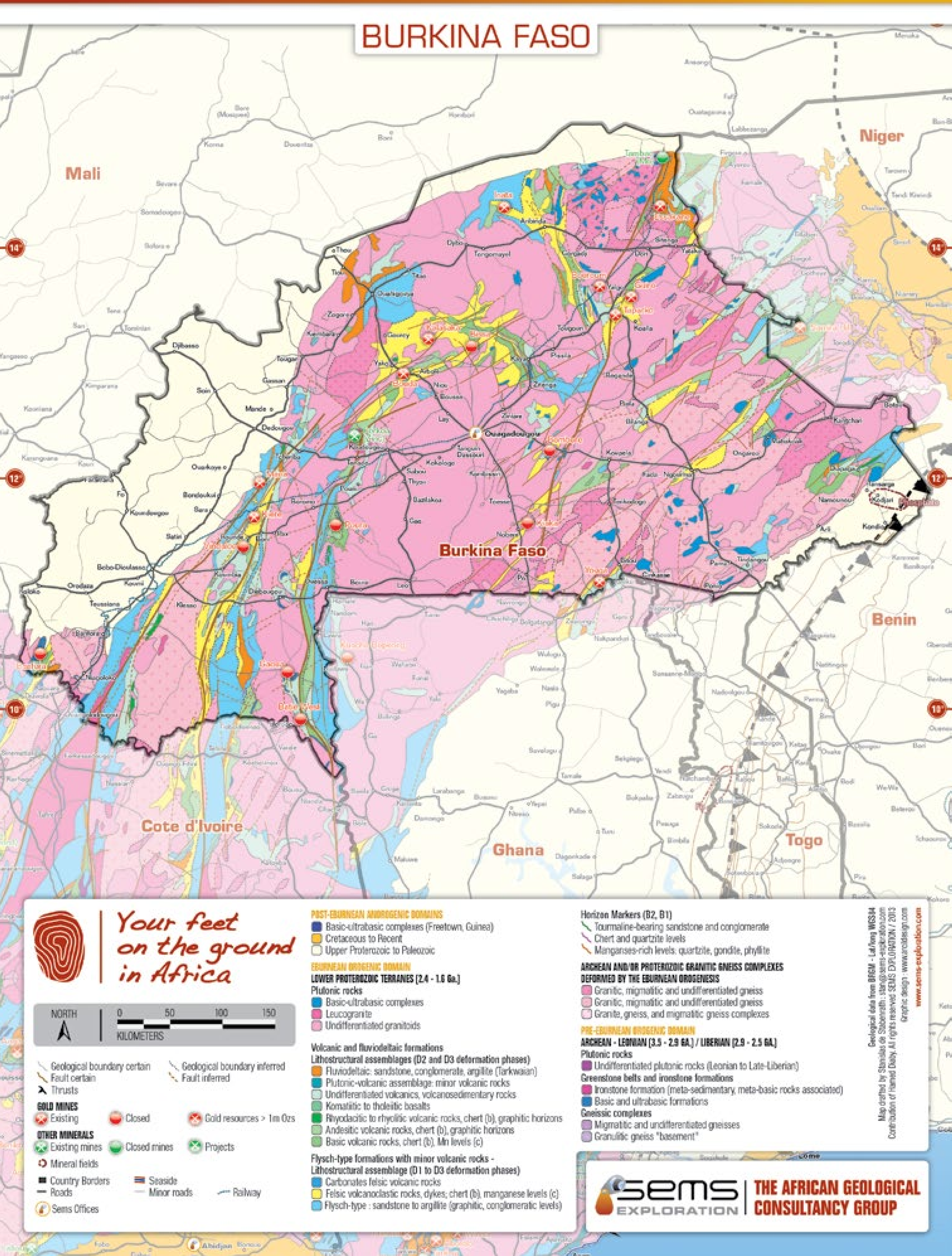


BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	150	154	154
Index of Economic Freedom (177)	85	86	98
Global Competetiviness Report (148)	136	133	140

BURKINA FASO



INTERVIEW WITH

Salif Lamoussa Kaboré

Minister of Mines, Quarries and Energy
BURKINA FASO

In the year ahead, what are your principle objectives for the growth of Burkina Faso's mining sector?
Our objective for 2014 is to reassure investors that Burkina Faso is and remains a privileged destination in terms of investment security and political stability. Burkina Faso is a country where exploration is advancing, and we hope that all projects that are at an advanced stage can proceed to the exploitation phase. Our mission is also to welcome investors interested in other metals besides gold. We have seven gold mines and one zinc mine that are active, and we want to expand our range of products further with other metals such as manganese and iron. Our goal is to diversify our exports in terms of the variety of metals we produce.

Burkina Faso is currently undertaking regulatory reform aimed at the mining sector. Can you describe the present stage of this process?
The new mining code has not yet been adopted, but it will soon pass to the National Assembly. Our goal is to improve the current code, which dates from May 2003, and to ensure that the relationship between the private sector, the state, and local communities is healthy so that companies can carry out their mining operations with more security. The code does not call into question the achievements of the sector, but will help to strengthen them. The process of reform of the mining code has been a participatory process. All stakeholders were consulted, from private developers, to civil society, local communities, and technical and financial partners. We were also inspired by other codes in the West African region, while also taking into account the specificities of our country.

What is the contribution of the mining sector to the economy of Burkina Faso?
Since 2009, gold has become the leading export product of our country. The contribution of the mining sector to GDP was 12.7% in 2011 and 11.75% in 2012. Mining brought 189 billion CFA francs in direct revenue to the state and created 5,500 jobs directly in 2012. The mining sector is expected to play an important role in the development of our country going forward. Today we have 950 research permits, eight operating licenses, and six or seven projects that are at very advanced stages and should soon obtain operating permits to begin construction.

What infrastructure projects are planned on the part of the government with the intention of facilitating the growth of the sector?
The government has decided to create growth poles in the country. For example, the Sahel region, which already has two operating gold mines, will soon put into operation a manganese mine. These growth centers will be accompanied by investment in infrastructure and electrification projects to allow not only the mine to benefit from the energy, but also to bring electricity access to surrounding communities. We are already working on electrification projects for the mines of SEMAFO and IAMGOLD. IAMGOLD's Essakane mine will be supplied from a transmission line which we have designed to originate from Ouagadougou.

What are the next steps for the government to improve the climate for mining investment?
The next steps will be to consolidate our political stability and investment security. The following steps will ensure we have an attractive mining code and a skilled workforce that can meet the needs of mining companies. Mines require very specialized training; however Burkina Faso does not have a great mining tradition. In collaboration with the World Bank, the state created the National School of Engineers of Fada to improve training capabilities. The Chamber of Commerce also sets up training. There must be relationships between mining companies and the government to implement a plan to allow for a transfer of know-how amongst foreign and local workers.

Can you leave us with a final message about the country for our readers?
As a final message, we want to emphasize that Burkina Faso remains privileged in terms of political stability, security of investment, the richness of our underground potential, and a mining code that remains attractive. We want to develop win-win partnerships with investors as we hope to fund and develop the infrastructure of our country. Finally, we want to develop winning partnerships for local communities, who expect a lot from the mining sector. Expectations are high, and it is through partnerships that we will try to meet these expectations. •

Burkina Faso's mining sector is a story of tremendous growth. In less than a decade, Burkina Faso's mining sector has gone from virtually zero to a top African gold producer. Exploration activities date back to the early 1990s, however it was not until 2007 that the country's first commercial gold mine entered into production. In the ensuing years, seven other mines have followed. The birth of the sector has had a tremendous impact on the country's economic growth as gold overtook cotton as Burkina Faso's top export in 2009. Contributing 12.7% to GDP and adding $189 billion to government coffers in direct revenue, mining is giving the nation a sizeable pillar upon which to grow.

As the country takes on the challenge of regulatory reform for the sector, along with many of its regional counterparts in West Africa, the government is aiming to ensure that mining growth occurs in tandem with local development. The country's relative political stability, enduring over 20 years to date, makes it an attractive investment destination, especially given its contentious next-door neighbours Mali and Niger. Given this attractively stable climate coupled with its underexplored potential, the country has been an investment darling and can serve as a regional leader in sustainable mining development.

In 2012, overall gold production in the country weighed in at 31.3 mt, a slight dip from its peak in 2011 at 32.5 mt. With eight gold mines in production and six or seven advanced-stage projects expected to begin construction in the near to medium term, the sector's role to play in the country's economic development is set to increase even more considerably in the next decade. In its first move towards mineral diversification, Burkina Faso also saw its first zinc operation start production in January 2013 at Nantou Mining's Perkoa mine.

The sector's outlook is promising; however its future will depend heavily on the implementation of regulations and policies well tuned to the reality of the jurisdiction. While the region's Birimian belts run through the country, Burkina Faso thus far has seen lower grades than its regional counterparts in Ghana and Mali. According to 2012 data from the World Gold Council, the average grade of gold production and deposits over 1 million oz in Burkina Faso came in at 1.6 g/t. Western African gold production costs are also quite high on the global scale, with Burkina factoring in at $756/oz, not far below the regional average of $760/oz in 2012. With reform of the mining code underway, one which has included considerable sector consultation, the realization of an attractive regulatory framework looks bright though remains in the balance.

REGULATORY ENVIRONMENT

In pursuit of reform, Burkina Faso's government began discussions in 2012 to develop a new code for the sector to replace its 2003 law. At the start of October 2013, a draft code was adopted by the Council of Ministers of Burkina Faso. The draft will now face the National Assembly before it must meet presidential approval and come into effect.

With this reform, policy makers are aiming to increase governmental revenues from the sector and to ensure the sector has a greater impact on local development by giving preference to local businesses and recruitment. While these stated intentions have raised concerns among investors about a state hungry for a bigger slice of the pie, Minister Salif Lamoussa Kaboré has insisted that the administration seeks not to undermine the sector but to reinforce it.

While the facets of reform remain subject to change, the proposed draft legislation has accounted for increased obligations when it comes to local procurements for goods and services, as well as the recruitment of local employees into senior positions. The new code would call on mining companies to devise training plans for the local workforce aimed at skills transfer from foreign workers. The bill also proposes the establishment of a Local Development Mining Fund, financed in partnership with producers and the government, to push royalties earned more directly back into local communities.

PRODUCTION AND EXPLORATION

GOLD

Burkina Faso's gold mining sector was launched by the Quebec-based miner SEMAFO, which poured its first ingots at the Mara mine in 2008. Starting out at a processing capacity of 4,000 mt per day, SEMAFO now processes 8,000 mt per day and has plans to increase this volume to 12,000 mt with the incorporation of a new high-grade discovery the Siou sector. "The Siou deposit is exceptional because of its high grade of 5 g/mt. We are rapidly going into production at Siou to maintain a strong level of production and to increase the life of mine by more than ten years. We can maintain at least the same level of employment and we can continue to make the same contribution to the state in terms of tax and indirect benefits to local operators and service providers," said Elie Justin Ouedraogo, country director for SEMAFO and president of the Chamber of Mines. "The Siou discovery is also very important for the country, because it proves that we have enormous potential and that high-grade deposits can be discovered here."

"We have developed a code and an administration that balances the sharing of benefits to encourage investors... We have a culture of dialogue which assures a certain social and political stability."

- Dr. Elie Justin Ouédraogo,
President of the Chamber of Mines,
Country Director for SEMAFO

Burkina Faso's gold sector is known for its comparative low grade, making discoveries such as the Siou sector a rare achievement and a sign that the country could potentially have more to offer in the way of high-grade finds. Randgold Resources, one of the first companies to move in and begin conducting exploration in Burkina Faso in the 1990s, temporarily closed its local office in 2013 in favour of other jurisdictions that could offer better grade and higher tonnage deposits.

Not all miners are convinced that Burkina Faso cannot host world-class deposits, however. Not far from Siou, Toronto-based junior Roxgold Inc. is rapidly advancing their Yaramoko project, having released a PEA in 2013 and aiming for a feasibility study to be issued in the second quarter of 2014. "The headline that catches everyone's attention is the internal rate of return of 59.2% cited in the PEA. One of the key aspects of Yaramoko is the relatively low capital expenditure of approximately $95 million, which in terms of other projects in the area is less than half. This is driven by the fact that this is a very high grade compact ore body, which remains open at depth," said Ben Pullinger, senior manager of geology for Roxgold. "Our plan is to develop a high grade underground mine, which will provide us and our shareholders with a certain flexibility in terms of having a small surface footprint while remaining nimble and generating significant cash flow within a very short amount of time."

With an expected feed grade between 10 to 12 g/mt coming from the 55 Zone, Yaramoko could potentially be the highest-grade mine in West Africa. Moving forward, Roxgold has a drill program underway to cover more ground in their land package. "The objective of our upcoming exploration program will be to find satellite deposits for the 55 Zone and to continue to find more gold as we proceed through the feasibility study," said Pullinger.

Burkina Faso's small and medium-sized mines make it an ideal environment for burgeoning mid-tier producers. Following a strategic management shift in 2009 into operating mines, Endeavour Mining Corp. has moved into Burkina Faso with the 2010 acquisition of Etruscan Resources' Youga mine. Youga, located in southern Burkina Faso is the most mature mine in Endeavour's portfolio, having started in 2008. "It has been a strong performing mine, though the smallest in our holdings. This year's guidance is 87,000 oz/y to 92,000 oz/y at $740/oz to $780/oz," said Doug Reddy, senior vice president of business development for Endeavour Mining.

Building upon their experience in the country, the growing mid-tier producer released its feasibility study at its

INTERVIEW WITH

Innocent Belemtougri

General Manager

BITEL COMMUNICATION SARL, SEMICA MINING CONFERENCE

Mining is a relatively new industry for Burkina Faso and is contributing a growing number to the country's GDP, currently in the range of 12%. How do you see the country's mining potential developing in the medium term?

A few years ago, the first export product of Burkina Faso was cotton. Since we have found gold, there has been a mining boom and gold is now Burkina Faso's top export. It is important that we work to find more minerals to diversify our sector and strengthen our national economy. At present, there are exploration projects focused on phosphates, diamonds, and other minerals, as well as petrol. The mineral future of Burkina Faso and other countries of West Africa is very promising and will need regional cooperation for the benefit of all.

SEMICA is an annual trade fair that brings together leaders in the natural resources industry. What are your goals for the conference's 2014 edition?

At the SEMICA event based in Burkina Faso, we try every year to bring government and professional actors in energy, mining and quarries to discuss, connect, do good businesses and build fruitful partnerships to reach out to the mining sector in Africa. The 2014 event will be held from May 29 to 31. The general theme will be the contribution of the mining sector to the emergence of ECOWAS countries. At the conference, we will examine the status of the emergence of mining in these countries and the prospects for growth and cooperation. At SEMICA, all of the countries of ECOWAS will come to Burkina Faso to promote their mining, energy and quarry sectors and connect with financial companies and mining, energy and quarry companies, as well as local service providers. We are very proud of this event and we invite everyone from all over the world to attend to grow the industry in West Africa.

Can you tell us about the current status of ECOWAS mining initiatives and what role Burkina Faso can play in regional mining development?

The ECOWAS organization has issued a Mining Directive that has not yet been applied by its member countries. Every country has its own mining code, which makes it more difficult for West Africa to attract investors. We have to find the best way to implement the ECOWAS Mining Directive to bring more investors to the region. This is why we are bringing ECOWAS countries to Burkina Faso to bring people together in the same place at the same time and discuss these issues. We have to work together hand-in-hand to ensure that all African countries emerge together. •

Hounde gold project in late 2013, showing the possibility of 180,000 oz/y production over an eight-year mine life. The Hounde project benefits from proximity to a major highway and power lines linking from Cote d'Ivoire. "The feasibility study concluded that a series of open pits along the Vindaloo trend hosts a proven and probable reserve of 25 million mt, at a grade of 2.0g/mt, for 1.5 million oz of reserve. Endeavour has submitted the feasibility study and the environmental and social impact statement to the government as part of the permitting process," said Reddy.

At Burkina Faso's largest mine, Toronto-based mid-tier producer IAMGOLD's Essakane dealt with lower production as a result of lower grades in 2013. After completing a mill expansion by the start of 2014, Essakane is expecting a 25% to 30% increase in production in 2014. As the country's largest private investor, IAMGOLD has put an emphasis on local procurement and has partnered with local suppliers to improve their service capacities.

While 2013 was a quiet year for the sector, Centamin, which operates Egypt's largest gold mining operation, entered into the market at the end of the year when they announced Burkina-focused junior Ampella Mining accepted a takeover bid. Ampella's near-term producing Batie West project hosts a 3.25 million ounce resource that Centamin plans to upgrade and move into operation.

As of December 2013, another Burkina-focused junior West African Resources Ltd completed its acquisition of TSX-V-listed Channel resources, which held a 90% interest on the Tanlouka project adjacent that is adjacted to West African's flagship Boulsa gold project. At the Sartenga prospect on West African's Boulsa project in central Burkina Faso, the junior is also examining the potential for base metals. Significant copper-gold mineralization was intercepted at Sartenga, which led to a resource estimate of 174,000 mt copper and 651,000 oz gold. Sartenga has become West African's main focus and could add new commodities to Burkina Faso's gold-dominated portfolio if realized.

"We have just recently acquired an XRF which enables us to test for multi elements, and there has been a lot of attention on copper elements which are very rare in Burkina Faso. The country's industry is not built for base metals and they are not the mainstream deposits, but as people begin to realize the anomaly that the country's geology presents, we should see diversification across the industry," said Vincent Morel, exploration manager at West African Resources.

THE LOCAL SUPPORT SECTOR

Without a major mining tradition, the objective of increased local procurement remains a challenge although new incentives from the updated mining code should facilitate the growth of more local providers. To advocate for the interest of Burkina Faso's growing number of local suppliers, several Burkina entrepreneurs formed the Burkina Suppliers Association of Mining Equipment and Services (ABSM).

ERO Burkina, a supplier of construction materials, paints and construction services, was instrumental in the founding of ABSM. One of the earliest local suppliers to the industry, ERO began working with exploration companies in 1996. "ABSM was started as a group of five companies. We saw that 80% of the mining sector's service providers were international. This was not going to help develop the country, so we created an association to increase this percentage. To convince mining companies to use local providers, we hold workshops with the mines. Essakane has led this effort, as had SEMAFO, and they have started to take a closer look at local procurement options," said Rasmané Ouedraogo, general manager of ERO Burkina.

On behalf of ABSM, ERO Burkina and other member companies have joined in the consultation process on the new mining code, to ensure that it is sensitive to the needs of local suppliers. "We have engaged with the ministry to make the code more favourable and we have worked with the Burkina Faso Chamber of Mines as a member. We are also meeting with the World Bank to discuss how we can work more with miners and improve access to finance for service providers," said Ouedraogo.

A key initiative of ABSM, led by IAMGOLD, the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) and the Canadian embassy, was to facilitate missions to Canada to expose local providers to potential business partners in one of the world's most advanced mining markets. One such suppliers benefiting from this Canadian partnership is Satel Sarl, a Burkina supplier and installer of electrical, telecommunications and electronic security systems. Satel is the exclusive distributor in West Africa for Canadian electrical equipment manufacturer Adria Manufacture. "International companies have a role to play bringing innovation and local partners can bring their knowledge and networks to bring these innovations to companies investing on the ground," said Adama Ouedraogo, general manager of Satel.

Through gainful partnerships, local entrepreneurs have opportunities to upgrade their service offerings and become regionally competitive. "We have Ghana nearby which has served as an example and now works outside of the region exporting their expertise. We here in Burkina Faso need to develop our local competence so that we can compete within the West African Economic and Monetary Union (UEMOA) region and grow beyond West Africa to work in other markets," said Ouedraogo of Satel.

For its part, Satel has developed its employee base to this end as the company looks to expand in the region. Providing in-house training to staff, Satel has recognized the shortcomings of the local workforce and is working to improve employee skillsets. "What differentiates Satel is our human resources. As the mining industry in Burkina Faso started to grow we recognized the need to provide services at an international standard. To compete as a local company, this is the first step," said Ouedraogo of Satel.

> "Problems in Mali, Niger, Guinea and Cote d'Ivoire, which are all mining countries, have made it challenging for investors... Burkina Faso also has the geological potential, but we have the stability that is driving investment."
>
> - Jean Kirsi Ouédraogo, General Director, Omega International

From five founding member companies, today ABSM has 23 service providers in its organization. Given the predominance of the mining sector amongst Burkina Faso's industries, however, the market slowdown has squeezed local providers who rely on mining for the large part of their business. Another founding member of the association, ACMI, a local workshop for metal construction and industrial maintenance, has grown since its establishment in 2007 thanks to the mining sector. Working directly with the miners themselves, including Essakane and SEMAFO, ACMI also partners with mining subcontractors. With so many mining clients, many expansion projects are on hold for service providers, ACMI included. "The downturn has affected us. The demand from mines has reduced and it takes longer to receive payments. We have had to adjust and ensure that we do not keep too much in stock," said Patrick Saidou Ouedraogo, general manager of ACMI. "Even if it is

INTERVIEW WITH

Oumar Toguyeni

Regional Vice President, West Africa
IAMGOLD

Can you provide us with an overview of your history of operations in West Africa, and an update on your recent milestones within the region?

IAMGOLD was born in in West Africa in the 1990s with the discovery of the Sadiola mine in Mali, the development of which triggered the mining industry in Mali and spread to the rest of the region. We are presently in three countries: Mali, Burkina Faso and Senegal. IAMGOLD is the largest Canadian gold producer by numbers of ounces in the region and the largest private investor in Burkina Faso.

In Mali we have joint ventures with AngloGold Ashanti and the government of Mali on the Sadiola mine and the Yatela mine, which is winding down. In Burkina Faso, we have the Essakane mine, which is our flagship in the region and one of our main operations worldwide. We started production at Essakane in 2010 and we are now completing the expansion of the mine, which should be done by the end of December 2013 on budget and on time. We are also very active in terms of exploration around Essakane, in order to extend the life of the mine.

In Senegal one of our most exciting discoveries is the Boto gold project. After we made some interesting intersections last year, we published early this year our first resource estimate on the Boto project. Next year we will be launching technical studies to advance the project, with scoping and moving into a prefeasibility study.

As the availability of skilled workers is a key issue in these young mining jurisdictions, what is IAMGOLD's approach to developing the local pool of talent?

IAMGOLD has already brought significant employment to the region. For example, at the Essakane operation in Burkina Faso we employ over 2,000 Burkinabé, excluding contractors used during the recent expansion of the mine who totaled 1,200. IAMGOLD has a development plan in place to progressively reduce our expatriates and promote local workers with the necessary development and coaching. In parallel, we have developed programs with development agencies like Plan Burkina and the Canadian International Development Agency (CIDA) to provide training. Recently we held an internship program inside Essakane for several weeks to provide students with industrial experience.

The sharing of mining benefits has been a key issue for regulatory reform. Can you tell us about IAMGOLD's main initiatives in terms of community development?

IAMGOLD has been at the forefront of community development. We are working with local communities very closely and developing plans with them and for them. As a company, we have been innovative with leading local procurement initiatives in the past four years. One of IAMGOLD's targets has been to partner with the local suppliers so that they can improve their businesses and provide services at the standards that we need. For our mine expansion project in Burkina Faso, for example, we have worked with several national companies in terms of civil works and welding while also providing training in health and safety in order to meet our standards.

We were the first, in partnership with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) and the Canadian embassy, to bring a number of Burkina Faso entrepreneurs to Canadian mining areas to see what kind of partnerships they could establish with Canadian companies. These missions have resulted in tangible business partnerships. We have also been heavily involved in creating CSR networks in the region to support community development. •

not ideal, we still try to work with the sector. Financial institutions can help us and we can receive pre-financing."

CCCMG, a sister company of ACMI and a specialized manufacturer of mechanical parts, also counts mining as its mainstay industry, accounting for 60% of their activity. Neither are prepared to give up on the sector and plan to weather the storm. "Our expansion plans as a company are linked to the mining sector and the price of gold. ACMI wants to grow, but we are waiting for the mining climate to improve," said Ouedraogo of ACMI.

Hamidou Kindo, general manager of GEPDAF Sarl, echoes the sentiment felt in the local procurement market that margins are becoming increasingly tight. "Mining plays a very important role for GEPDAF, as it does for the wider economy of Burkina Faso. Our principal suppliers come from Europe, which for us as local providers is more costly but allows us to provide the best quality to our partners. The price of gold has made it difficult to balance our mining work with the high cost of our orders," said Kindo.

GEPDAF, which sells spare parts and rentals for vehicles and heavy machinery, also works with Burkina Faso's military yet continues to rely on mining for its customer base. As international competition increases, ABSM continues to advocate for more attractive fiscal policies for local suppliers. "International companies have advantages that we do not have, such as better access to available parts and the capacity for fast quotes and processing. For the same orders that we make, international companies receive exonerations and breaks for taxes and customs. We as local providers are obligated to pay them," said Kindo. "Through ABSM, we are hoping to advocate for more local procurement incentives that can bring more business to local companies."

In the face of steep competition, partnerships remain the best option for local entrepreneurs as international service providers arrive looking for new markets in the challenging climate. "International companies are coming and it can be difficult to compete with them.

But they also need a lot from us because we have local knowledge, so we can work together and help them to implement their technological changes," said Ouedraogo of ACMI.
Whether large or small, international or local, however, the threat of competition is put on the back burner as all service providers look to make it through the worst of the mining downturn and prepare for a brighter year. "There has been a big influx of international service providers over the past year as Burkina Faso experienced the beginnings of a boom. With a slower year this year, many companies are using the downtime to establish themselves for when the market picks up again. At the same time, local companies are working hard to meet government and industry standards. The potential for competition is there but it has yet to evolve in such a way," said Rachel Johnston, CEO of Sahara Geoservices, a Burkina Faso-based regional exploration services company.
Some international players who are well diversified, such as CMA Groupes, remain upbeat about the potential of the West African mining markets. CMA, a Senegalese provider of metal works and services, has expanded to the wider region through their mining portfolio, working in Niger, Senegal, Burkina Faso and Mauritania for miners such as SEMAFO, Teranga and Endeavour. Attracted by Burkina Faso's growing industries, CMA entered the market in 2006 to provide piping and facility installation services to the industry. Over 60% of their business in the country comes from mining and the company is currently progressing eastward with a key mining project with Areva in Niger for installation services. With an expected pickup in mining activity in the second half of 2014, companies like CMA are gearing up for a busier year ahead.
"We are investing in our workshops and we have bought a new fleet of machines that are all electronic. We have already installed them in Dakar and our plan is to bring them next to our Burkina Faso operations. It will modernize our operations and improve our capabilities to work with the mining sector," said Mamadou Deme, deputy agency chief of CMA Burkina Faso.

TOWARDS SUSTAINABLE MINING

While most service providers have cut costs and squeezed budgets, Burkina Faso's pursuit of more sustainable mining practices carries

on with the help of a growing base of local environmental and social expertise. As part of the state initiative to spread the share of mining benefits, the government is encouraging a sustainable development approach for nearby communities. To achieve this, the government is aiming to develop economic growth centres in areas that host operating mines. Coordinating infrastructure and electrification projects, such as in the building of a transmission line between Ouagadougou and IAMGOLD's Essakane mine, both the mines and surrounding communities can reap the benefits.

As large-scale mining has grown, artisanal mining in Burkina Faso has become an increasing problem. With increased economic development in mining communities, people who engage in artisanal mining will have safer, more formalized alternatives for subsistence. Beyond personal injury, artisanal mining has taken a significant toll on the environment. "Our problem today is that we have artisanal gold mines in addition to our industrial mines. Artisanal mining can be very dangerous and is becoming a very big problem for the country. Artisanal miners use cyanide and mercury, which damages the environment. More artisanal miners are using these products than they did in the past. More than 40% artisanal miners use cyanide, if not more. They do not understand the negative impact of the products on the environment. We expect the new mining code to have a good impact on this," said Jean Kirsi Ouedraogo, general manager of the Office of Mines, Environment and Geosciences (Omega International).

Omega International, founded in 2010, provides expertise in geology and environmental services to the industry, as well as acting as a representative for mining companies in the exploration stage. As HSE standards improve in the industry, environmental firms like Omega have played a crucial role in bringing sector practices up to par. "Mining companies such as Monteray or SAV'OR often ask us to go to their sites and meet with their workers to explain how to protect themselves when using products," said Ouedraogo.

SOCREGE, a regional environmental management firm, has provided environmental and social impact studies and reinstallation action plans to seven out of Burkina Faso's eight mines. In the last three years, mining has grown to 75% of SOCREGE's business. "From an environmental perspective, the principal issue for our clients is the protection of biodiversity and vegetation, water resources, the quality of air. Burkina Faso is a dry country, very often mining raises dust which affects local communities," said Adama Deme, general manager of SOCREGE. "In terms of social issues, there is often the question of acquisition of agricultural land."

In developing mining sectors such as Burkina Faso, regulations pertaining to the mining sector versus environmental legislation can be inadequately developed and at times conflicting. While Burkina Faso's government is working to introduce more stringent environmental regulations, the sector's predominance of international mining companies has ensured that sustainability practices are upheld.

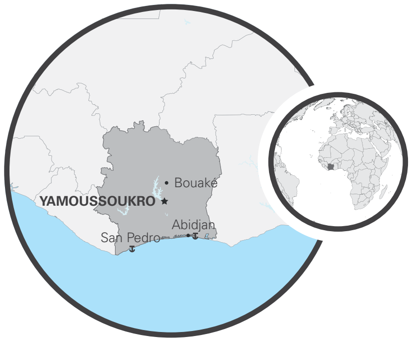
"We have worked, for example, for SEMAFO. We participated in their mine's feasibility study and also their reinstallation plan. We have done the EIAs for their subsequent expansions and planned for the mine's rehabilitation and closing. Even if the government did not impose these plans, these are international companies and they are responsible," said Deme.

In spite of the rapid growth of the sector, the government and private sector have collaborated well to improve mining practices and more towards reform, yet the balance between miner, state and local stakeholder benefits remains a tenuous endeavour. With reform on the horizon, the sector is counting on nuanced policies to preserve Burkina Faso's enviable status as a preferred mining destination. •


LOADING ORE MUROWA

Cote d'Ivoire

After Côte d'Ivoire gained independence from France in 1960 it spent the next two decades as one of West Africa's economic powerhouses, due primarily to its coffee and cocoa industries. However an economic crisis in the 1980s led to social and political turmoil, from which it has not yet fully recovered: brief civil wars occurred in 2002 and 2011. The mining industry seemed surprisingly unaffected by these conflicts: gold, and manganese are produced and there are major exploration projects for iron ore, phosphate and tantalum.



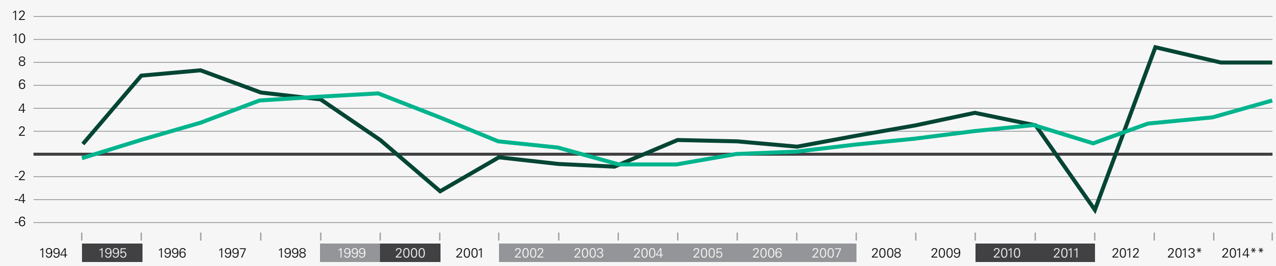
Population 22,400,835 (July 2013 est)
Land Area 322,463 sq km
Official Language(s) French
Capital Yamoussoukro
Chief of State President Alassane Dramane Ouattara
Head of Government Prime Minister Daniel Kablan Duncan
GDP (PPP) $39.64 billion (2012 est)
Growth Rate 8.1% (2012 est)
GDP per Capita $1,700 (2012 est)
Economic Sector Breakdown agriculture: 28.8%, industry: 21.8%, services: 49.4% (2012 est)
Exports: $10.99 billion (2012): cocoa, coffee, timber, petroleum, cotton, bananas, pineapples, palm oil, fish
Imports: $8.406 billion (2012): fuel, capital equipment, foodstuffs
Major Trade Partners Nigeria, Netherlands, USA, France

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU

● BY YEAR ● 5-YEAR AVERAGE

*predicted
**forecast



Henri Konan Bedie, who became president following the 1993 death of Félix Houphouët-Boigny, is reelected.

A military coup deposes Bedie, who flees to France, and installs General Robert Guéï as president.

Guéï claims election victory, yet flees following protests and is replaced by Laurent Gbagbo

The First Ivorian Civil War is sparked by a troop mutiny, in the context of increased ethnic tension. Former president Guéï is killed on the first night and troops quickly take control of the country's north. In January 2003 a compromise deal was reached and in 2004 the Accra III Agreement was signed, yet fighting soon resumed. A peace agreement was finally reached in 2007 after an easing of tensions in the preceding two years.

The 2010 elections, delayed from 2005 due to the civil war, result in a victory for Alassane Ouattara, yet the refusal of Gbagbo to accept the result leads to further violent conflict. This ends when Gbagbo is arrested in April 2011.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION

● GOLD (in oz)

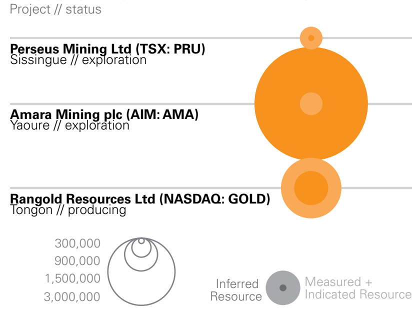
Company/Operating Partner
Project // status

Primary Mineral

Perseus Mining Ltd (TSX: PRU)
Sissingue // exploration

Amara Mining plc (AIM: AMA)
Yaoure // exploration

Rangold Resources Ltd (NASDAQ: GOLD)
Tongon // producing



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

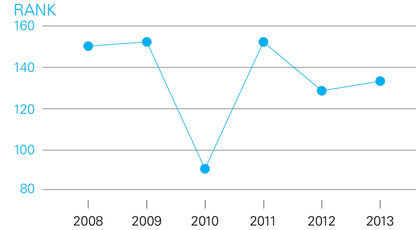
as of 2011
in mt unless otherwise stated

Gold**	10.685
Manganese	60.000

**in kilograms

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

1524

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

2007 **6.8%**

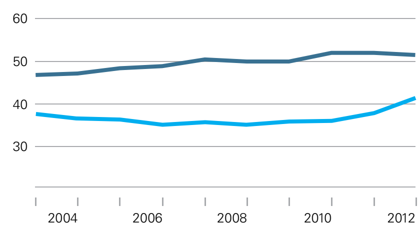
2011 **4.7%**

These values do not include artisanal mining.

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION

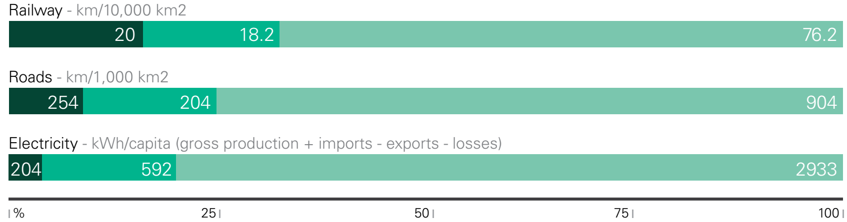
● AFRICAN AVERAGE ● COTE D'IVORE SCORE



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

● COTE D'IVORE ● AFRICA ● WORLD

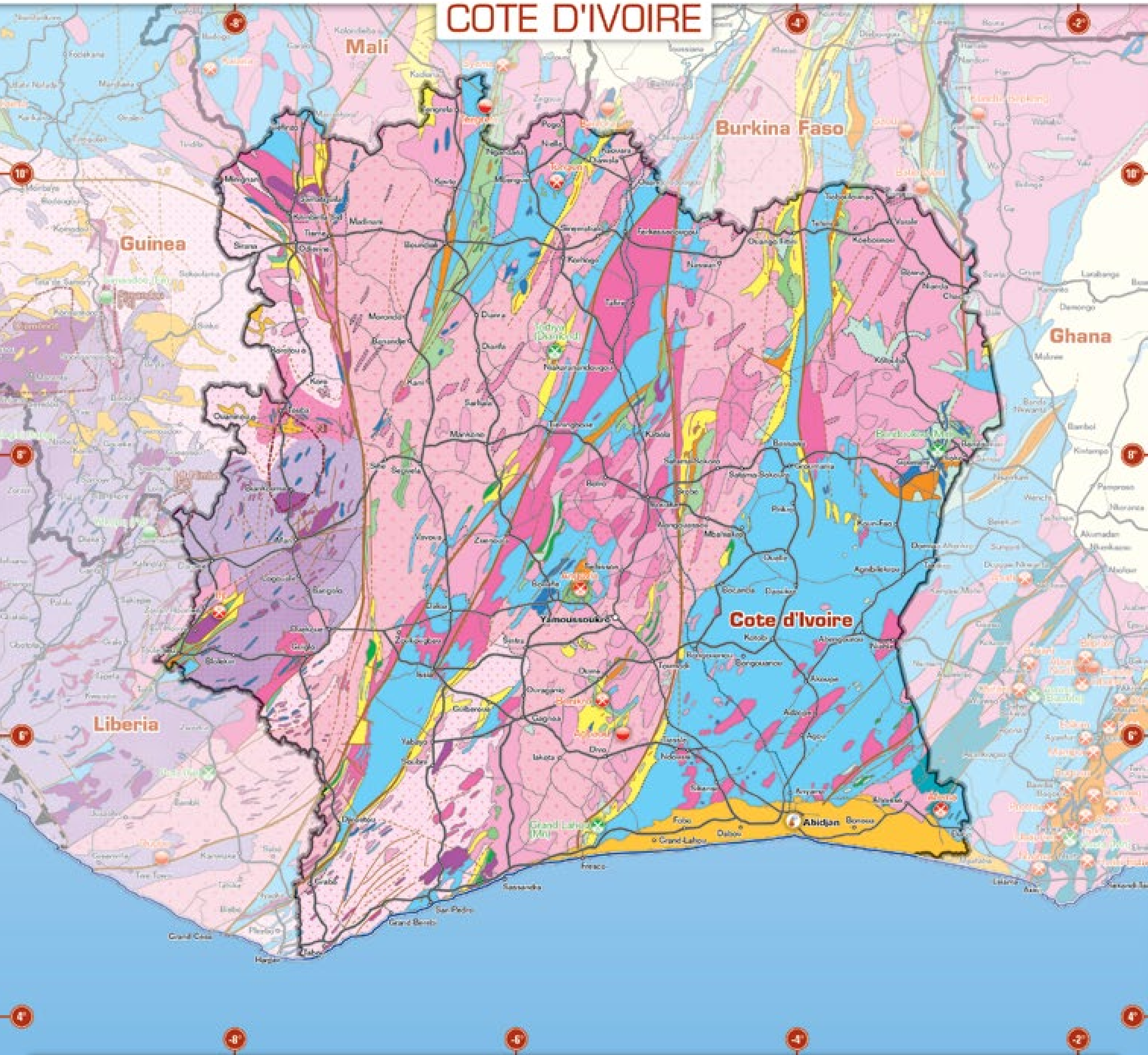


BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	167	173	167
Index of Economic Freedom (177)	126	126	107
Global Competetiviness Report (148)	129	131	126

COTE D'IVOIRE



Your feet on the ground in Africa

NORTH
0 50 100 150
KILOMETERS

Geological boundary certain
Geological boundary inferred
Fault certain
Fault inferred
Thrusts

GOLD MINES
Existing
Closed
Gold resources > 1m Ozs

OTHER MINERALS
Existing mines
Closed mines
Projects
Mineral fields

Country Borders
Seaside
Roads
Minor roads
Railway
Sems Offices

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 argilite (graphitic, conglomeratic levels)

Horizon Markers (B2, B1)
- Tourmaline-bearing sandstone and conglomerate
- Chert and quartzite levels
- Manganese-rich levels: quartzite, gondite, 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 BRGM - Lat/long WGS84
Map drafted by Stanislas de Stabenrath : stanis@sems-exploration.com

Graphic design : www.annabdesign.com
www.sems-exploration.com

SEMS EXPLORATION | THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honorable Jean Claude Brou

Minister of Industry and Mines
THE REPUBLIC OF CÔTE D'IVOIRE

What are your initiatives for the Ministry of Industry and Mines under your new mandate?

In order to contribute more significantly to Côte d'Ivoire's economic growth and development, the country's emerging mining sector needs to be properly regulated and opened up to private investors. The key objective, first and foremost, is to make sure that mining has a larger share of the country's GDP than it currently does. In order to achieve this, we have several strategies being put into place. The first of these is to make sure our mining code is on par with international best practice standards. The next step will be to embark upon a very strong and extensive promotional program with our mining code to show that we have not only the mineral potential, but the legal framework to ensure a fair and balanced development of this potential for all involved parties.

It is vital that we have an accurate database of geological information for investors to use and build upon. Lastly, but perhaps most importantly, we would like to improve the overall management system that will implement the mining code. In order to maintain an efficient and accountable permitting process, all operational, environmental, legal, and financial and safety standards must be adhered to. Governance is also essential. We are, as of last year, EITI compliant. Recently, we were also Kimberley compliant.

Considering the goal of mineral diversification, what are the key objectives you have to this end?

Mining legislation is the key to everything; even with the most abundant resources in the world, if legislation is not attractive or efficient enough, mineral potential will remain a potential. The private sector must be reassured that they will find an environment conductive to taking the long-term risks that mining requires. There is currently an international consensus on what constitutes good legislation in the mining sector. It is our goal to ensure our mining industry is built around such good practices. When a mining deposit exists, its development must bring benefits to all parties: the private sector, the state and the communities. Mining resources are not renewable; they will eventually be depleted, so they must be exploited in an efficient and sustainable manner.

Keeping the goal of stability in mind, has Côte d'Ivoire looked at the possibility of adopting a mining convention?

The overall legislation in Côte d'Ivoire gives a broad coverage of the mining industry across several aspects: mining, permits, fiscal regime, environment, local communities and more. Once a company finds an interesting deposit and conducts the necessary research, it must negotiate with the administration to move into the development phase. These specific negotiations are centered on the mining convention, which has to adhere to the mining code. The mining convention grants stability to the private company over the period of operation of the mine. This stability is essential to the investors.

What steps are being taken to ensure that during and after the revision process, permits are issued effectively and fairly?

There are several improvements we would like to achieve through our reform. Providing a very specific time limit for an administrative response to be given to private companies is first on the list. If the administration does not respond in due time, the investor has the option to follow up at a higher level. During the revision process, we also want to ensure that all requirements for permit application are well known to everyone. Finally we also want to ensure two things: that all applicants have technical capacity to perform the job they are applying for, and that they have the financial capacity to carry through with it.

Do you have any final messages for attendees of the African Mining IndabaTM this year?

West Africa as a whole has a great deal of potential in mining. In addition, Côte d'Ivoire offers more in industrial development. We have a very good infrastructure set up for road transport, which is crucial to the mining industry. We also have energy. Our energy capacity at present is 1,600 MW, which we are in the process of doubling in the next few years. We also have two ports and are planning to expand our railroad further to facilitate the transport of mining output and materials. Our currency is one of the more stable ones in the region, with a peg to the Euro, making our country an extremely attractive investment destination. In the last Doing Business Report, we have been rated among the top 10 best performers in the world. We are open for business. •

Since Côte d'Ivoire's 2011 change of power, which brought in a government intent on exploiting its mineral sector, the country has emerged as one of the most highly prospective mining jurisdictions in the West Africa region. Home to over one-third of the Birimian Greenstone belt, Côte d'Ivoire has vastly untapped potential that if properly facilitated could bring the country into contention with its neighbouring gold producers Ghana, Burkina Faso and Mali.

Côte d'Ivoire's under-exploration is due in part to the political instability that has plagued the country in in the last decade, as well as a legacy of state focus on the agriculture sector. In 2011, ending a presidential election standoff and five months of ensuing turmoil, new president Alassane Ouattara entered into office and assembled his administration to boost the country's mining sector. In an effort to diversify the national economy, Ouattara has called for the mining sector to become an economic driver for the country and has a stated goal for the sector to contribute up to 8% of GDP within the next decade.

Extensive exploration will be required before the administration can see significant gains, requiring funds difficult to come by in the current downturn. Further challenging exploration, the government has called for reform to the sector's regulatory framework, which has caused permitting delays. Nonetheless, as the country's political and economic conditions stabilize, mining investors are increasingly looking at this largely virgin territory. The decision of the African Development Bank to move its base back to Abidjan has been heralded as a vote of confidence in the country's future stability.

REGULATORY ENVIRONMENT

Côte d'Ivoire's mining sector is governed by a mining code written in 1995. In March 2012, the government announced its intent to reform the sector's legal framework, spurring a year and a half of debate. A first draft bill was proposed to the industry at the end of 2012, followed by a second attempt in early 2013. Principal changes to the code currently under discussion include a potential limitation of the number of permits that a company may hold. A further proposal is the introduction of a 20% capital gains tax with regards to mining permits. The issue of mining conventions has also been addressed.

"One of the interesting innovations of the new mining code is the issue of a model of mining convention. Mining conventions in Côte d'Ivoire are not currently covered by the law. Conventions as they are used in other countries help to stabilize customs, taxes and the legal framework, upon which companies can base their feasibility studies," said Georges Angaman Kouadio, partner at KSK Avocats.

In a further move to improve the sector's framework, President Ouattara made the decision to move the mining portfolio out of the Ministry of Energy and Mines and into the Ministry of Industries, now called the Ministry of Industries and Mines. This move, which came in July, has prolonged the reform process but will hopefully pave the way to better understanding of the sector on the part of the government. Now under the guidance of Jean Claude Brou, Minister of Industries and Mines, the government is hoping to bring a more nuanced approach to the sector's governance and to foster closer ties between mining and downstream industries.

"Agbaou is located in south-central Cote d'Ivoire and has access to some of the cheapest grid power available in West Africa. Currently we are at the start-up phase with commercial production slated for Q1 2014."

- Doug Reddy,
Senior Vice President Business Development,
Endeavour Mining Corp.

PRODUCTION AND EXPLORATION

GOLD

Though Côte d'Ivoire has shown potential for a diversity of metals and minerals, gold is by far its strongest commodity. In 2012, the country's gold mines produced 7 mt of gold per year. As interest on the parts of the government and investors rise, gold production is expected to reach 20 mt by 2020, according to a report issued by DLA Piper Africa Group.

In spite of the regulatory uncertainty at present, several mining projects have made significant developments. Randgold Resources entered into production at its Tongon mine in 2010 in the north of the country and has forecast an output for 2013 in the range of 280,000 oz. The Ity mine, owned by La Mancha Resources of Canada and SODEMI, the state-owned mining development company, reached 31,000 oz of production in 2012 up from 16,860 oz the year before. One of the country's oldest operations, Ity has produced over 600,000 oz in the over 20 years that is has been in production. The Bonikro mine, acquired by Newcrest in 2010, has similarly improved production in recent years, achieving 90,350 oz of production in 2012 up from 41,235 oz.

Amara Mining plc, which is seeking to revive the Yaoure gold mine that was put on care and maintenance in 2011, issued its first resource estimate at the project after changing its exploration focus to the deposit's sulphide resources. As of March 2013, the resource estimate stood at an inferred resource of 1.7 million oz and indicated resource of 0.3 oz. With a new feasibility study for the mine planned for 2014, Amara hopes to have Yaoure in production within the next three years.

The newest mine on the scene will be Endeavour Mining Corp.'s Agbaou project. The Canadian-based miner is currently in the commissioning phase, with the mine's first gold poured at the start of December 2013. Endeavour, which has three currently operating mines in Burkina Faso, Ghana and Mali respectively, will exceed an overall production of 400,000 oz for 2014 with the start up of Agbaou. "We also built and are in commissioning of the Agbaou gold mine in Côte d'Ivoire, which will provide us with an additional 100,000 oz/y. Total annual production capacity in 2014 will therefore be over 400,000 oz/y. At the same time we have established an operations base in the Ghanaian capital of Accra, to service our various mines," said Doug Reddy, senior vice president of Business Development, Endeavour Mining Corporation. "Our team which built our Nzema mine in Ghana is at work at Agbaou and there are many geological similarities, providing confidence in our project planning and process design."

By adding a mine in Côte d'Ivoire to its producing portfolio, Endeavour is aiming to create regional leverage that can improve their overall operations. "Having added more mines we have better purchasing power and have gone back to our suppliers and contractors and asked them to look at their rates. Endeavour has also been looking at owner mining options, to help bring down costs, which has already been done at the open pit at Tabakoto," said Reddy.

BASE METALS AND BEYOND

Beyond gold, Côte d'Ivoire's potential for iron ore is under examination in the west of the country. Notable players include Tata Steel, exploring at Mount Gao, and Pan African Minerals, exploring at Mount Klahoyo. Tata Steel announced plans in October 2013 to begin mining at Mount Gao in 2016 at an expected annual rate of 20 million mt. A distance from the port of San Pedro, and at grades in the range of 43% to 44% Fe, iron ore in Côte d'Ivoire has its challenges. With the abundance of natural gas available, however, considerable potential for processing within the country casts these projects in much more favourable light.

Adding to the country's mineral portfolio, exploration projects are underway in nickel, tantalite manganese and bauxite. Transland Resources, which has several mining licenses around the country for gold, tantalite and uranium, was attracted by Côte d'Ivoire's high quality tantalite. "The quality of tantalite in Côte d'Ivoire is better than anywhere else; we have a grade of 60-65%, Ta2O5 whereas DRC is only 35% and most other areas are the same. The problem is that the high concentration deposits are very small and have not attracted foreign attention until now," said Jean Likane-Yagui, president of Transland Resources.

A FUTURE MINING SERVICES HUB

On a relative scale within the region, Côte d'Ivoire is well positioned in terms of infrastructure. With a high number of paved roads, two main ports and existing rail links, the groundwork is in place, though improvements need to be made. The country's abundance of natural gas gives easy access to cheap power. With these advantages, Côte d'Ivoire has the potential to be a base for mining service providers looking to target growth opportunities in the wider region.

To improve the quality of in-country service offerings, service companies are reaching out to international expertise to boost local know-how. SNG Geophysics, which specializes in providing ground geophysics services for many of Côte d'Ivoire's growing number of explorers, has partnered with Canadian suppliers to be able to provide a level of technical assistance unparalleled within the country. "SNG is a local company; most of our geophysicists are local. This means that we can provide cheaper services than companies that fly in expatriates on a regular basis. We have a team of 12 people on the field that utilizes international expertise through local people," explained Jean Likane-Yagui, president of SNG Geophyiscs.

International service providers are also recognising the investment benefits of operating out of Côte d'Ivoire's strategic positioning in the region. EPC Groupe, a French explosives company, started activities in Côte d'Ivoire this year through a joint venture with the state-run mining company SODEMI. Recognizing the country's geological potential and geographic positioning, EPC has invested in an explosives manufacturing facility in Côte d'Ivoire. Completed by the end of 2013, the factory will make Côte d'Ivoire EPC's regional base from which it can service West Africa's other rapidly growing mining markets, including Mali, Burkina Faso and Sierra Leone. With the factory up and running, EPC will offer a full suite of services to Côte d'Ivoire's mining sector, from explosives manufacturing to drill and blast and quarrying services.

"Today in Côte d'Ivoire all of the explosive products are imported from either Ghana or Europe. We want to make our products here so that miners will not have concerns about procurement or authorization," said Jean-Jacques Koua, deputy managing director for EPC Côte d'Ivoire.

While exploration companies have bemoaned the lengthy licensing process, the rapid start up for EPC Côte d'Ivoire gives testament to an improving regulatory climate for investment. "Generally in a country when we start our operations, it takes time to receive authorization. Luckily in Côte d'Ivoire this was not the case and we received our authorization to start up our activities without much delay. Our project was welcomed by the Ministry and Director of Mines. It is remarkable that since our installation this year, we will have our factory in operation by the end of the year," added Koua.

As the country's number of active mines grows and exploration interest increases, specialized providers are beginning to arrive on the scene. To encourage participation of local players, and not just international subsidiaries, the government will have to take a careful approach to its fiscal incentives. "Côte d'Ivoire could become the mining leader in West Africa, but to do so it will have to be innovative. There are very few service companies that can service the sector, as service providers are not benefiting from any of the fiscal advantages that miners do," said Stanislas de Stabenrath, Côte d'Ivoire country manager for SEMS Exploration, a West African exploration services firm that has been working in the country since 2006.

For example, X & M, a geology supply business, is based out of Côte d'Ivoire and offers imported and locally manufactured products and tools for geologists. By providing access to its warehouse of goods, explorers have quick access to specialized products without the lengthy importation process of international procurement. As a local provider, however, such entrepreneurial companies are subject to high import duties and no VAT exemption, making it difficult for home-grown suppliers to fill the space left in the market for local procurement.

"Côte d'Ivoire offers many advantages to the companies that are willing to base their operations here, for example they still have the biggest port and the best infrastructure in the region. However, some good can face high import taxes. It also takes time to get customs clearance on the goods, which is a recurring problem in West Africa and this process needs to be easier," said Andrea Palmieri, regional manager for mineral services at SGS West Africa.

A last piece in the puzzle for support sector development will be the cultivation of a pool of specialized workers who can meet industry standards. "Here in Côte d'Ivoire we have a challenge when it comes to training. Many people are trained, but because mining is a new sector, we need workers with profiles good profiles for mining. Our trucks are new and need to meet the high quality standards of miners to be geo-localized. The majority of drivers that you can recruit are not experienced

INTERVIEW WITH

Georges Angaman Kouadio

Partner
KSK AVOCATS

The current mining code is in the process of being revised and we have seen the issue of draft legislation last year. What key changes will be made to the regulatory framework?

The changing of the mining law was a crucial issue in the mining sector because the first draft introduced a production sharing agreement. Production sharing agreements have been applied in the oil and gas sector, however the mining industry is quite different and the proposal was not accepted by the mining companies. While it can be analyzed as an option for small mining companies that are trying to access more financing, production sharing agreements cannot work for big mining companies.

One of the interesting innovations of the new mining code is the issue of a model of mining convention. Mining conventions in Cote d'Ivoire are not currently covered by the law. Conventions as they are used in other countries help to stabilize customs, taxes and the legal framework, upon which companies can base their feasibility studies.

How has this protracted regulatory reform process impacted your clients?

Mining companies are here to invest and of course they are here to earn money. Because Cote d'Ivoire is not a mining country, we have to make a mining code that is very attractive for mining companies in order to develop our mining sector. Particularly because there are financing issues for mining companies at the moment, this is the time to have a mining code that is in step with the mining sector's realities.

Since the new government began its discussion of revising the mining code, mining permits were not signed until recent months. In practice, some of the rules to be included in the new law were likely implemented by the government under the current law. This included, for example, the limitation of the number of exploration permits per company, as well as a limitation of the area of those permits. •

manipulating a system like this. Sam & Lo has initiated a training program to develop this specific skill set. We are also negotiating to partner with Bolloré, which has established a specialized school for drivers," said Jean Philippe Messou, general manager of Sam & Lo, a transport services and logistics engineering company working in Côte d'Ivoire and Burkina Faso.

While ranking low on the 2014 World Bank "Doing Business" index at 167 out of 189 economies, Côte d'Ivoire's last two years have shown significant signs of improvement. As the country's climate improves for investment, the mineral sector will be poised for growth as the global mining industry climbs out of its current downturn. "We are hopeful that with the adaptation of the new mining code we will see the country begin to develop its mining potential. Ghana has done an excellent job of developing its mining sector and serves as a fine example of what we can do. Where Ghana has a focus largely on gold, we have 3 billion mt of iron ore and various minerals which gives us an edge. If companies and the government remain dedicated to developing our infrastructure, then we can certainly be one of the most attractive investment destinations regionally," said Likane-Yagui. •

Ghana

Ghana, a former British colony, is seen by many as the success story of West Africa. Multiparty democracy has been functioning well since John Rawlings reintroduced it to the country in 1992. Sensible macroeconomic policies combined with an oil and gas boom has seen the country enjoy consistently strong economic growth for the past 30 years. In the mining industry, Ghana is a globally significant producer of gold and diamond (by volume), and also produces bauxite, manganese, and silver.

Population 25,199,609 (July 2013 est)
Land Area 238,533 sq km
Official Language(s) English
Capital Accra
Chief of State President John Dramani Mahama
Head of Government President John Dramani Mahama
GDP (PPP) $83.18 billion (2012 est)
Growth Rate 8.2% (2012 est)
GDP per Capita $3,300 (2012 est)
Economic Sector Breakdown agriculture: 24.6%, industry: 27.4%, services: 47.9% (2012 est)
Exports: $13.58 billion (2012): oil, gold, cocoa, timber, tuna, bauxite, aluminum, manganese ore, diamonds, horticultural products
Imports: $17.52 billion (2012): capital equipment, petroleum, foodstuffs
Major Trade Partners China, France, Nigeria, Netherlands

IMAGE: SHUTTERSTOCK

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

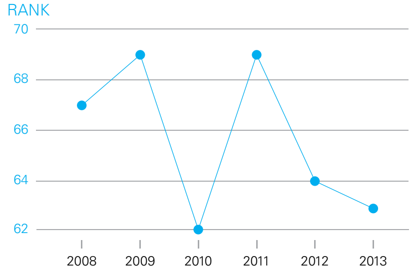
2007 **2.8%**

2012 **8.5%**

These values do not include artisanal mining. In 2012 the Minister of Mines said the sector accounted for 9% to 10% of GDP, which he planned to double to 20% by 2020.

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



FOREIGN DIRECT INVESTMENT

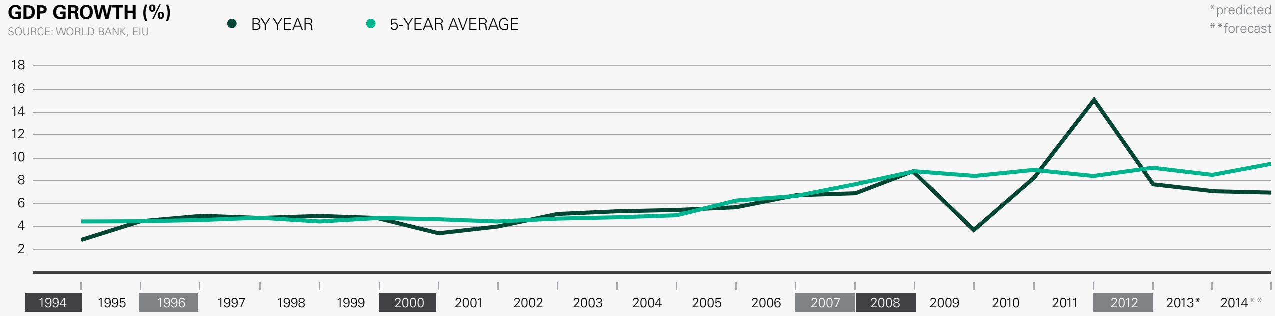
SOURCE: UNCTAD

2009	2897
2010	2527
2011	3248
2012	3295

*inflows, $ million

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



Ethnic clashes in the Northern Region leave up to 1,500 people dead, which end with a peace agreement in June.

Jerry Rawlings is reelected president with 57% of the vote in an election described as free and fair by observers.

John Atta-Mills, vice president of Rawlings, is defeated by John Kufuor in the presidential elections.

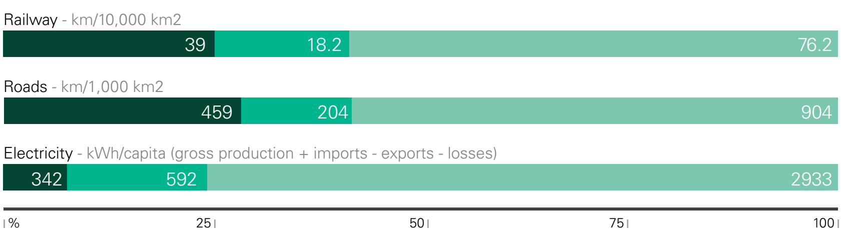
Kufuor, again running with the New Patriotic Party, wins a second term in presidential elections.

A major offshore oil discovery is announced by Tullow Oil, promising an economic boom for Ghana.

John Atta Mills of the National Democratic Congress wins a close election to become president.

INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK



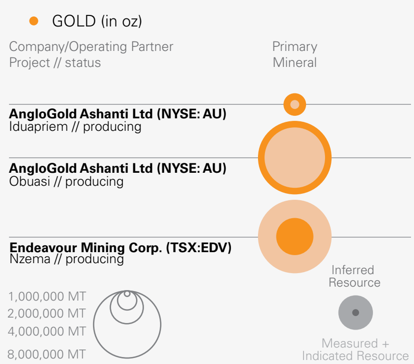
BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	63	62	67
Index of Economic Freedom (177)	84	77	66
Global Competetiviness Report (148)	114	103	114

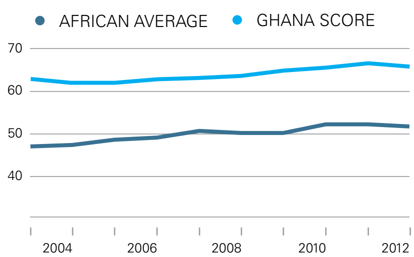
SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

as of 2011
in mt unless otherwise stated

Aluminium	35.000
Bauxite	283.369
Diamond**	90.959
Gold***	1.827.692
Manganese	250.000
Salt	3.900
Silver***	

**in carats ***in kilograms

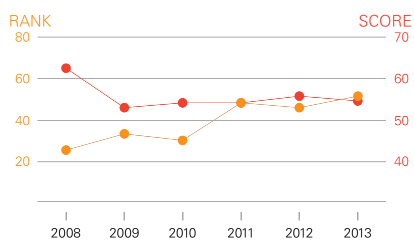
STATUS OF THE MINING CODE

APPROVED 2006

Corporate Income Tax	0,35
Mineral Royalties	0,05
State Participation	0,1

FRASER INSTITUTE ANNUAL SURVEY OF MINING COMPANIES

SOURCE: FRASER INSTITUTE

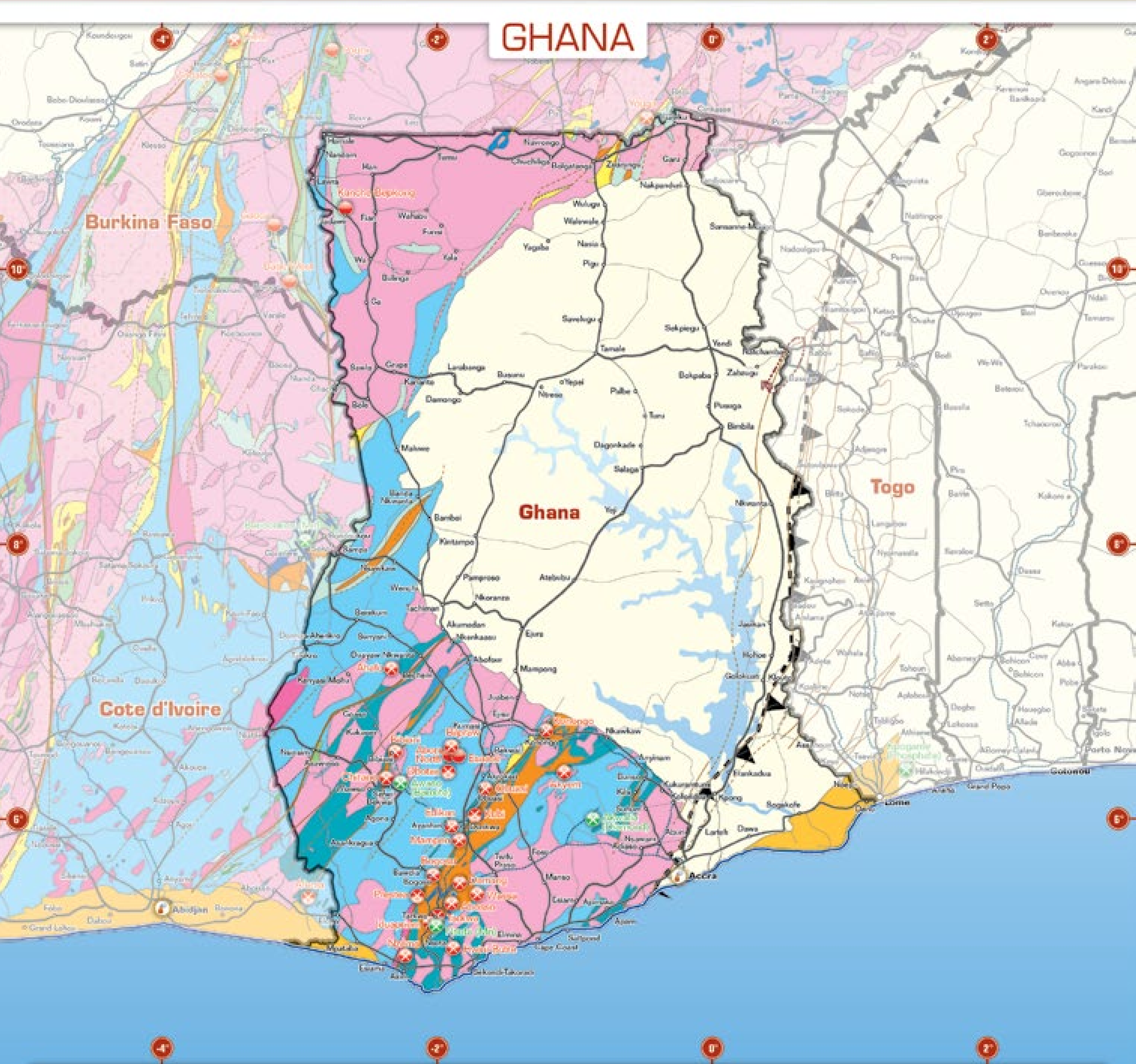


INFLATION

SOURCE: WORLD BANK

2010	10.7%
2011	8.7%
2012	9.1%

GHANA



Your feet on the ground in Africa

NORTH

0 50 100 150

KILOMETERS

Geological boundary certain
Geological boundary inferred
Fault certain
Fault inferred
Thrusts

GOLD MINES

Existing
Closed
Gold resources > 1m Ozs

OTHER MINERALS

Existing mines
Closed mines
Projects
Mineral fields

Country Borders
Seaside
Roads
Minor roads
Railway
Sems Offices

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
- Komatitic to tholeitic 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, gondite, 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 BRGM - Lat/long WGS84
Map drafted by Stanislas de Sébénach : stan@sems-exploration.com

Graphic design : www.amrdesign.com
www.sems-exploration.com

SEMS EXPLORATION | THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honourable Alhaji Inusah Fuseini

Minister of Land and Natural Resources
THE REPUBLIC OF GHANA

2012 was a record year for Ghana's mineral sector in terms of gold production, but difficulties in 2013 thus far have led to a projected 10% decrease in gold production for the sector. What steps is the ministry taking to ensure a more stable industry?
Times of boom and bust are normal features of the commodities market, regardless of location. The ministry is currently working to diversify the exploitation of our natural resources. Ghana has a commendable history in gold mining, which has been a blessing for us but also led to us becoming somewhat of a mono-mineral country. When there is a fall in the price of gold, it affects us seriously. This is why we are working to ensure that other metals are also our focus in the coming years. We have bauxite and iron deposits and have discovered base metals which we are trying to bring to the attention of investors. Our 500 kilometer shoreline also has the capacity for major salt production, which holds potential as our hydrocarbon industry. The key to fighting market volatility is diversification.

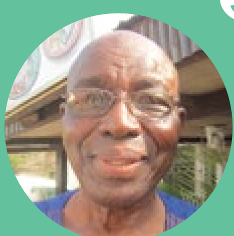
Ghana needs to remain relevant and competitive in an increasingly active West Africa mining scene. In line with this, infrastructure development needs a big boost; what initiatives is the government looking at in this area?
The government is dedicated to developing the western railway line for the hauling of bauxite and other heavy metals to the ports. If we do not develop our railways, the roads are constantly built up and destroyed again, absorbing all of the profits that we generate from the mining sector. Further to this, Ghana actually has a great deal of infrastructure available to connect the upstream and the downstream already. The challenge lies in developing the complementary aspects; we need power. With the current power grids, we are not able to operate facilities efficiently. By 2015, we need to generate in excess of 5000 MW of power from cheap fuel sources such as gas. These two areas remain our key focus for new initiatives looking forward.

You have said previously that the Ministry is working to integrate the industry with the rest of the country's economy. Part of this includes integration with and benefits for local communities. What is the government doing to ensure balanced distribution of benefits with local communities?
The private sector and government are partners in development. Open communication and collaboration between the two allows for more efficient completion and planning of infrastructure projects and community development initiatives that are accessible to all.
Part of the royalties received from mining companies go back to the communities through local assemblies and chiefs. The government is currently in the process of passing the Minerals Development Fund, which will follow along the same lines as the Petroleum Revenue Management Act to ensure the utilization of royalties in an open, transparent and accountable manner. The use of royalties must go towards infrastructure development and not be used as recurrent expenditures. This bill is intended to track and benchmark the use of royalties to ensure that this is complementing the efforts of government in delivering social infrastructure (public goods) to the people.

Another challenge the industry faces is that of illegal mining, which accounts for a significant chunk of gold production here. What can the government do to ensure safety and transparency for the rest of the established sector?
Illegal mining has been the bane of the sector. Small-scale mining holds tremendous opportunity in terms of reducing poverty and providing employment. It also has the capacity to catalyze the development of communities in which mining takes place, because of the linked businesses that spring up as a result. The danger is unregulated and uncontrolled small-scale mining, which leads to the degradation of the environment and the pollution of our water bodies, amongst other things.
Due to the complex nature of land ownership and mineral rights in this country, we have decided that to properly regulate small-scale mining, we need inter sectoral stakeholder collaborative action. All of the ministries and government agencies that have to do with land - mining, agriculture, finance, and so on - must work together. In doing so, we must help to explain to chiefs and local councils that they must follow the required processes for acquiring and developing mineral concessions. We also have to help educate them about the benefits of doing so. We want to promote intergenerational equity and to ensure the creation of a beneficial relationship between all concerned parties. •

In West African mining, Ghana is king. Not only does the sector dominate as Africa's second largest gold producer, but its experts are in high demand across the region as neighbouring countries aim to build up their sectors. Despite its comparative size and skill advantage, however, the new lower price gold environment has made it a difficult year for the stalwart industry.

In 2012, Ghana's mining sector saw a record year for gold ounces produced, due to the increasing price of gold and a marginal boost in output. As a result, Ghana regained its position from 2010 as the eighth largest gold producer in the world as output ounces hit 4.3 million, compared to 3.7 million in 2011. Coming off this record year, 2013's falling gold price has sent shockwaves throughout the industry's value chain. With over 90% of its mining sector dedicated to gold, Ghana has felt the constraint of a mono-mineralization.



> Côte d'Ivoire also has potentially large oil reserves but given the diversification of Ghana's mining portfolio and well-established mining sector, I would give Ghana the edge in terms of potential.
>
> - Alhaji Abudulai, CEO, CME (Ghana) Ltd

While mining's economic dominance has waned slightly as revenues from the oil and gas sector have begun to increase, mining continues to be one of Ghana's chief export earners along with cocoa. Over the last decade, gold has contributed an average of 40% to overall merchandise export earnings. The Ghana Revenue Authority, in turn, has seen roughly 27% to 28% of its revenues collected from domestic tax units come from mining. Keen to diffuse the impact of commodity price shocks, the government is pushing for greater mineral diversity. Beyond gold, bauxite and manganese are produced and exploration is currently underway for base metals and industrial minerals. As Ghana is a hub for mining in the region, its many mining service providers have found refuge in the growing mining activities of neighbouring countries such as Burkina Faso, Liberia, Sierra Leone and Cote d'Ivoire. Back at home in Ghana, miners are implementing cost control plans and explorers are tightening their belts.

REGULATORY ENVIRONMENT

As the price of gold has risen steadily in the past decade, the Ghanaian government has looked at reforming the regulatory framework and tax regime to increase its share in mining profits. This year's downturn has put the brakes on these initiatives, however, much to miners' relief.

"After gold prices reached a record high in 2011, the government of Ghana began in 2012 to actively implement an upward review of the mining fiscal regime with a view to increase its take in mining projects. Royalty payable on total revenue earned from a mining project was increased from 3% to 5%. Corporate tax for mining companies was also increased from 25% to 35%. Additionally, annual ground rent and licensing fees payable for grant of mining rights were increased significantly. A 10% windfall tax on profits has been proposed by the government which also established a national committee to renegotiate two long-term mining investment stabilization agreements made with Newmont and Anglo Gold Ashanti," explained Innocent Akwayena, a mining lawyer and managing consultant of REM Law Consultancy. "As gold prices continued to fall throughout 2013, some major companies began to lay-off employees and others have suspended mining operations. The government is now seeing the real impact of lower gold prices. There is likely to be a re-consideration of the government strategy for the upward revision of the mining fiscal regime."

Indeed, the government has altered its discourse and opened up new discussions with the sector. "While Ghana, like other mining economies, is also interested in getting as much out of the mining sector as possible, we take cognizance of the fact that we need to at the same time ensure that investors get a reasonable return on their investments and security of tenure," said Benjamin Aryee, CEO of the Minerals Commission of Ghana. "In that context, we have started the process of dialogue with key investors to ensure that in times of boom and times of bust, both parties do not feel unduly disadvantaged."

Due to the sector's long history, Ghana's mining industry is also subject to a more developed and far-reaching set of regulations. "As the industry matures further, certain regulations get tightened up. The involvement of the Environmental Protection Agency (EPA) in particular has become greater over the past few years. Though this is a good thing and shows respect for environmental regulations, the level of scrutiny companies have to comply with makes it slower and less cost-effective for smaller companies to operate. Ghana needs to work at keeping the system efficient and fast-paced," said Simon Meadows Smith, managing director of SEMS Exploration, a regional exploration services firm.

Yet while the sector's maturity brings more regulation, Ghana's framework also benefits from comparatively advanced investment incentives. Infrastructure development is sorely needed for Ghana to improve its bauxite and manganese production, which is an area that the government has ear-marked for PPPs. The government has been working to put into place a legislative framework for such partnerships, and is expecting to implement these policies in the coming year. "The government issued guidelines in 2011 and we are now trying to develop a PPP law, which should be ready at the start of the year. Some projects for PPPs have been lined up, including railways and harbour expansions. Once it is passed, we will see a lot more coming up," said Michael Cobblah, country representative of Ecobank Development Corporation (Ecobank Capital).

PRODUCTION AND EXPLORATION

GOLD

Coming off record production in 2012, March's drop in gold price has pushed marginal projects teetering at the brink. Already one of Ghana's 14 mines, Noble Mineral Resources' Bibiani mine, has gone into care and maintenance as gold production across the sector has declined. Some gold mines are estimated to see declines in production up to 17%, leading to an overall forecast for 2013 of a 10% decline in gold output for the sector.
Gold Fields' Tarkwa mine remains the largest gold producer in Ghana, while AngloGold Ashanti's Obuasi mine aims to dramatically revamp its operations, which have declined in recent years. While miners such as Golden Star Resources, which operates the Bogoso Prestea and Wassa mines, and Newmont, owner of the Ahafo mine, have seen overall marginal decreases, a few miners have seen positive growth. Perseus Mining began commercial production at its Edikan mine in 2012, while Chirano Gold Mines saw a 14% increase in output due to improved head grades and process recoveries.
Far from discouraged, companies like Golden Star Resources are continuing with their plans to go underground at the Prestea mine in Western Ghana, while the up-and-coming Asanko Gold is aiming to begin construction at its Esaase gold project in Ghana's Asankrangwa gold belt by January 2014.
Gold refining is also emerging as a new way to bring more added value to the sector. As the Australian-based 888 Investments Group has opened up the first international refinery in Ghana this year, ASAP VASA Company Ltd, the country's first indigenous gold refinery, continues to ramp up operations.
Buying mostly from small-scale miners, ASAP VASA refines gold before selling it onwards to Europe. After starting operations in 2007 with an installed capacity of 500 kg per month, ASAP VASA has since been upgraded its capacity to 2.5 mt of gold per month.
Given Ghana's levels of gold production, there is ample room in the market for refining activities. Without a government mandate to require in-country refining, ASAP VASA is looking to work more closely with small-scale miners to ensure their gold supply.
"Financing suppliers is quite common here; it is a good way to grow a refinery's supplier base. If people want to gain the confidence of smaller-scale producers, the best way is to help them with their equipment and production. The margins involved are also important; when you help with financing, you can negotiate better margins. We are also aiming to start our own mine, but getting the site and required documentation is difficult and extremely bureaucratic. In the meantime, helping smaller suppliers grow will keep us busy," said Henry Vroom Parker, CEO of ASAP VASA Company Ltd.

BAUXITE AND MANGANESE

With mineral diversification at the top of its agenda, the government is first looking at how to expand the output of the minerals they already have in production. Beyond gold, Ghana also produces bauxite, manganese and a small amount of diamond. While manganese production declined in 2012, the dip was due to Ghana Manganese Company's decision to focus on mine development and position itself for higher export levels in future. Ghana Bauxite Company, on the other hand, saw a dramatic rise in shipments from 2011 to 2012, increasing by 88% due to the company's switch to road haulage instead of rail transport. While less cost efficient, road haulage is allowing for the transport of much higher volumes. The insufficient rail infrastructure affects both the volume-intensive commodities bauxite and manganese; however bauxite's greater distance from ports has made haulage a particular constraint. The government has touted hopes for Chinese backing in a western rail development project, however, concrete action on the government's part remains forthcoming.

Huge bauxite deposits remain open to investors, although with the caveat that the government is seeking developers with the capacity to add value in country. With an aluminium smelter already in place in the country, increased bauxite production would open up potential for further vertical integration of the aluminium industry.

BASE METALS

In new commodities for the country, iron ore deposits have been identified in Ghana's northeastern and central regions. There exists also considerable potential for limestone, kaolin and solar salt. Limestone mining could spur vertical integration by adding to the country's cement manufacturing value chain, while kaolin deposits are under consideration for pharmaceutical applications.

As regional competition is on the rise, Ghana's growing oil and gas sector could play a surprising role in strengthening the mining sector. Oil and gas exploration has led to the identification of solar salt potential along the country's 500 km coastline. "Ghana has an emerging oil sector which is anticipated to play a sizable role in regional output, however mining of non-gold metals and minerals is still going on actively. Côte d'Ivoire also has potentially large oil reserves but given the diversification of Ghana's mining portfolio

Increased Taxes on Mining Projects Threaten Ghana's Competitiveness in Attracting Global Mining Capital

By Innocent Akwayena LLM; Managing Consultant, REM Law Cosultancy, Accra

In the 1980s and 1990s strategic legal, fiscal and institutional reforms carried out by the Ghana government revived Ghana's ailing mining industry which had been in serious decline for many years. Since then, the country's gold mining industry in particular has for nearly two decades been very successful in attracting global mining capital into both mineral exploration and production projects. Indeed, the implementation of such reforms, the country's rich gold resource endowment, combined with a stable democratic political system established under the 1992 Constitution established Ghana as a favoured destination for mining investment particularly within the West African Sub-region.

However, the situation has changed rapidly in recent times due largely to government's attempts to maximize its take in mining projects through the passage of new laws that imposed increased taxes and levies on the mining industry.

A new Minerals and Mining Act was passed in 2006 to replace the law that applied since 1986. Under the new mining law royalty payable on the total revenue earned from a mining project was initially fixed within a range of 3% minimum to 6% maximum. The new mining law was subsequently amended in 2010 to fix the royalty rate at a flat rate of 5% for all mining companies. As the gold price continued to rise on the world market the government came under pressure to increase its take in mining projects. Consequently, in 2012 the government increased the corporate income tax rate for profits made by mining companies from 25% to 35%. Under new regulations that also came into force in October 2012, annual ground rent payable by mineral title holders was increased from a nominal 0.50 Ghana Cedis per acre to 36.50 Ghana Cedis per acre, whilst annual mineral right fees payable to the Minerals Commission were also increased significantly. The government also proposed a 10% windfall tax, which is yet to be implemented. Apart from these direct taxes and levies on mining companies, the government introduced changes in the fiscal regime that had the net effect of imposing additional financial burden on the mining companies. Some tax exemptions and incentives that mining companies enjoyed under the pre-2006 law were removed. For instance, capital allowances were significantly reduced in 2012 whilst the exemption from capital gains tax of assets that were classified as 'class 3 assets' under the Internal Renue Act was abolished in 2013, thereby making capital gains accruing from transactions involving such assets liable to 15% capital gains tax. Furthermore, mining projects were to be ring-fenced to prevent companies undertaking multiple projects from off-setting costs associated with new projects against profitable projects that yield taxable income. Alongside these fiscal measures the government in 2012 also set up a national committee to re-negotiate long-term mining investment stabilization agreements made with two gold industry majors, AngloGold Ashanti and Newmont with respect to existing gold mining projects in Ghana.

The increased taxes and levies were justified by government as being necessary to ensure equitable redistribution of the wealth created by the country's mining industry. Unfortunately, the implementation of these increased taxes and levies has coincided with a period of progressive decline in gold prices in 2013 and decreased investor confidence in the mining industry as a whole. These factors have already begun to hit hard on the Ghanaian economy and the mining industry in particular. Apart from the reduction in revenues accruing to government, some major companies implemented significant staff-reduction programs whilst some mining operations were suspended. The negative impact of the increased taxes and the falling commodity prices on the country's mining industry may soon become so evident that the government would have to reconsider in current position and review its strategy of redistributing the country's mineral wealth through increased taxes and levies. •

and well-established mining sector, I would give Ghana the edge in terms of potential," said Alhaji Abudulai, CEO of mining consultancy CME (Ghana) Ltd.
What could perhaps be the biggest game changer yet for mineral diversification in Ghana is the discovery of base metal showings. The first indications of base metals came two years ago after an airborne geophysical survey found copper, lead and zinc mineralization in the eastern part of the country. The government has said they will prefer to execute drill campaigns themselves, so as to discourage prospectors and expedite the exploration process.

A MODEL SUPPORT SECTOR

Given Ghana's head-start on mining development in the region, its service sector is poised to grow along with the West African mining boom. The government is working to increase local capacity for mining services to expand their potential beyond its borders by improving the implementation of local content and adding local procurement requirements.
"Ghana is the base that services mining across West Africa and we are looking to expand that coverage to the entire continent," said Aryee of the Minerals Commission.
For local services suppliers to compete with international players and grow regionally, the Ghanaian market has worked to stay at the forefront of industry practices and adapt to new mining trends.
"Ghana has been mined for well over a century, so there is a lot of skilled labour and expertise here, yet of all the years of mining in Ghana, there has only been about 20 years that we have had open-cut mining. It became a job for expatriates who had the know-how and technology. Local content companies have had to face this challenge from big, international players," said Henry Ayisi Tandoh, the late general manager of Rocksure International, a Ghana-based West African mining services provider. "Now that dynamic is changing and there is a paradigm shift

INTERVIEW WITH

Mark Morcombe

Senior Vice President
OBUASI OPERATIONS, ANGLOGOLD ASHANTI GHANA

Obuasi is AngloGold Ashanti's chief asset in Ghana. Can you provide us with a brief introduction to its long history and your plans to revamp production?

Over the last 116 years, the Obuasi mine has had a lot of different phases of development, and through a lack of capital reinvestment the mine production has tapered off since the late 1990s. Since the merger with AngloGold in 2004, the decline in production has not been arrested and has actually been a downward trending story for a number of years. The rising gold price through the 2000s masked falling production and rising costs.

Over the last 12 months in particular, AngloGold Ashanti has developed a holistic plan for the mine, covering every facet from production to stakeholder engagement and our environmental plan. Going forward, we plan to reduce the mine's footprint, which has spread out over a large area over the years. We also have had a large workforce in the mine for quite some time and there is a need to ensure that our workforce is a suitable size for the operation and has the right skills. We are developing a mine design that is appropriate and ensuring that we have the building blocks in place to deliver it.

What recent milestones have you achieved in the revamping process?

We have recently made several important developments at Obuasi. First, we have switched over to an owner development approach as of last November. Prior to this, there was a mining contractor that was operating at Obuasi since the 1920s. For various reasons, they were not able to recapitalize and modernize their fleet. It reached the point where output from the contractors was just not sufficient and we decided to terminate the contract. This was not a simple decision, given the 90 years of history, and we engaged in important stakeholder consultation to ensure that it was done in an appropriate manner.

This enabled us to bring in the international mining contractor Byrnecut Offshore Pty Ltd to develop a primary decline from surface and to slowly but surely modernize the way that we develop, away from a labour intensive, hand held method to a fully mechanized method. Byrnecut has been on site since April. In June, we started work on our primary access decline, which will go down to the 50 level, about 1,500 m below surface. This is a 17,000 m capital redevelopment that will allow us to modernize the mining of the ore blocks above and, more importantly, to access the Obuasi Deeps below the 50 level.

What is your outlook for Obuasi in the next three years?

In the next three years, we would love to have an Obuasi that has executed its capital program and right-sized its workforce. By that time, we should be profitable and will have risen from our current status as a fourth quartile producer. AngloGold Ashanti also has many non-core assets, such as our hospital, where we have to ensure that we have the right business model because they support not just the mine but also the community.

We have done a lot on the communication front in the last few months to ensure that people are aware of our plans for the mine. We just recently met with more than 800 of the miners' wives to inform them of what we are doing and to hear their concerns too. We have also recently submitted our draft environmental management to the EPA for the next three years and we will be ensuring that legacies are addressed as well as possible. •

as the system is turning towards local content to give more opportunities for capacity building and to ensure that the wealth stays in the country."

Local mining service providers like Christel Engineering & Mining Services (CEMS), which provides engineering services and equipment rental to the mining industry, are able to benefit from tax breaks aimed at the industry. "As registered members of the Minerals Commission, companies are exempt from certain taxes and are able to receive 50% of their payments due in US dollars to facilitate the purchase of equipment from abroad. This is extremely helpful as we have to import most of our equipment and the costs add up," said Edmund Christopher Amoah, founder of CEMS.

For wholly-owned Ghanaian companies, these fiscal incentives provide them with the capacity to support large mining houses. Particularly in the current downturn, this is crucial for equipment providers who have seen an uptake in equipment leasing. "Companies are hesitant to invest in their own equipment as it adds drastically to their expenses. Leasing equipment from providers such as CEMS provides a viable alternative and one that has become increasingly competitive over the past few years," said Amoah.

For more established providers to the sector, like Atlas Copco and Komatsu-dealer Panfrican Group, they recognize that Ghana's mining market is crowded and constrained and are looking to add in new products and services. "Ghana has a long mining history and features some of the bigger mining houses. These majors are able to consolidate services and are aiming to keep as much as possible in-house right now," said George Apostolopoulos, general manager of Atlas Copco Ghana.

"The fall in gold price is affecting the whole mining industry. There are a lot of companies where there have been layoffs. We encourage our people to work a bit smarter; we are placing more focus on small construction companies and also on different operations like hoses to get additional work in," added Jakes Luus, regional service manager for West Africa at Panafrican Group.

This strong base of technical expertise and growing market of service providers in Ghana have helped to maintain the sector's strength during the downturn. Exploration interest in the country has waned, particularly as greenfields in frontier markets of West Africa grow more competitive, yet Ghana remains an attractive mining investment destination due its stability and relative infrastructure advantage. Going forward, the industry has a significant role to play in the development of West African mining.

"By establishing benchmarks in exploration and mining practices and leveraging human and knowledge capital, Ghana's industry is essentially developing the playbook for best practices. By doing so, Ghana can support the growth of the regional mining sector through technology transfer and sharing of ideas and knowledge," said Abudulai of CME. "Another role for Ghana is to act as a fulcrum for partnerships among the region's nations and companies. Encouraging a more regional approach would make it easy for companies to do business across borders and to harness the true output potential of the sub-region." •

INTERVIEW WITH

Alfred Baku

Senior Vice President and Head of West Africa

GOLD FIELDS GHANA LIMITED

Could you provide us with an update on Gold Fields' major milestones achieved at your two operations in Ghana: Tarkwa and Damang?

Tarkwa is a very large surface operation that has multiple open pits spread across the entire lease. In terms of mining volume, it has about 135 million mt and two processing units. The gold production profile is about 600,000 oz annually. Damang is relatively small, with production being just short of 180,000 oz.

In terms of milestones achieved over the last two years, we have begun a business process re-engineering program. Following the global market downturn, with increasing operating costs and decreasing gold prices, we decided to see how we could improve our margins. This program has been quite successful so far; in 2011 and 2012 we were able to bring down our operating costs quite substantially, saving approximately $50 million.

How do you see Gold Fields' outlook changing in the face of a challenging market in 2013, and what can we expect to see in 2014?

Unfortunately, 2013 has been tough for the global mining industry, not just for Gold Fields or Ghana. At Tarkwa, we are busy with the latter stages of halting the heap leach operations. This is being done for two reasons; the material sent to the heap leach needs to be softer, but as we go deeper into the pits, it is becoming harder. The recovery rate comes down to just 45% from nearly 70%, which is not efficient and cost effective at the moment. The second reason is a lower gold price and escalating operating costs. The production outlook at Tarkwa for 2013 is 630,000 oz and will be scaled back to 500,000 oz as a result of halting the heap leach operations, but these will be much more profitable ounces.

What sort of cash cost per ounce are we seeing at Gold Fields' CIL plant?

In order for us to remain in operation with the current lower gold prices, our aim and objective is to ensure that we can be in the region of $1,000 per ounce, all-in cost. We are currently at $1,200 at Tarkwa but we are adjusting our operations to meet this goal. Damang has a different geology and has recently lost its higher-grade pit, which puts pressure on us to do more stripping and expose the ore. We are weighing the options there to see if we need to put the brakes on operations there for a while to go on a care and maintenance, or if we can meet the cost per ounce that we are seeking.

In addition to your introduction of a new water treatment plant, how is Gold Fields looking to introduce initiatives to minimalize the environmental impact of its operations in Ghana?

We have a bond with the EPA and have made a deal with them to rehabilitate the areas we are operating in. Concurrent rehabilitation is built into our short to medium term mine planning. Piezometer holes are drilled around all Tailings Storage Facilities to monitor any potential seepage of tailings into the external environment. •

The Balancing Act

West African Mining Reforms Weigh out a Fair Share

West Africa is home to a vast wealth of mineral resources, but with its geological and ethnic diversity so too has come a proliferation of mining jurisdictions at vastly different stages of development and with markedly different approaches to regulating the sector. As mining investment dollars have waned, governments have become more aware of the role that their regulations and incentives can play in wooing investors into their borders. As a result, administrations across the region have called for reform, arguing for both more attractive regulatory frameworks and more state benefits.

Yet just as the West African race towards more attractive mining codes has gained momentum, so too have initiatives to pre-empt the regional legislation competition and move towards regional harmonization. As diverse as the region's countries are, the task of crafting a regional code would be an arduous one, yet could potentially benefit West Africa as a whole, rather than drive a zero-sum reform game. Initiatives led by the Economic Community of West African States (ECOWAS) and the West African Monetary and Economic Union (WAMEU) have made strong efforts but faltered in the negotiation process. The way forward for harmonization will come from stronger leadership from regionally leading mining markets and a careful analysis of existing inadequacies.

Shortcomings of Existing Mining Codes

As many national codes were developed in the 1990s and early 2000s, at the onset of the West African mining boom, reform is indeed in order to match the current realities of the industry. A key issue of many jurisdictions is a lack of harmonization with existing environmental regulations.

"The environmental issue needs to be tackled. The mining sector is often in conflict with the environmental sector and governments tend to give more importance to mining because it brings more financial revenue," said Mohamed Kebe, managing partner at Senegalese law firm Geni & Kebe.

Separate statues dealing with the environment, mining and rural collectivities bring all three to a head when a company is attempting to explore or exploit on a property. When dealing with high-risk investments, mining sector companies are looking for jurisdictions with minimal bureaucratic headaches. Legal duplicity extends often to land rights as well: in countries such as Côte d'Ivoire and Senegal, this has been a key issue standing in the way of exploration permits. "In Senegal there are persistent differences between land rights and the mining act. For example, there is a statue dealing with property land, meaning if an entity or an individual owns property land he has all the rights dealing with the land. However, under Senegalese law, when there is any resource found on any land it belongs to the government, from the date the discovery is made it becomes the property of the state. Thus, conflicts arise between land owners and the government," said Kebe.

Another issue is taxation and repatriation, which governments are looking to increase. Of course, the trend towards resource nationalism, defined by Ernst & Young as the biggest investment risk globally for mining, has also led to rent-seeking governments. Even Ghana, which has the most established sector, has looked at policies to increase government revenues. As of last year, mining contributed about 28% of government revenues collected by the Domestic Tax Unit of the Ghana Revenue Authority. Nonetheless, current code stipulates that the Ghanaian government holds a 10% active interest in all concessions and the government is reviewing increasing their stake in international companies, as well as introducing a windfall profits tax. An increased 5% corporate tax law was also introduced in Ghana, by no means a rare occurrence as regional counterparts are also raising corporate taxes.

An additional criticism of many regional codes has come from human rights organizations who allege that these legal frameworks have failed to provide adequate protection to local communities affected by mining. Oxfam America has been vocal in its call to ECOWAS to implement its planned common mining code so that local communities would have more say in mining developments in their regions. International voices have called for sustainable development measures to be built into governing codes for the mining and oil and gas sectors.

LESSONS FROM THE REFORM PROCESS

With mining codes under review in Burkina Faso, Gabon, Guinea, Mali and Sierra Leone and beginning in Côte d'Ivoire, West Africa's mining countries have a wealth of examples to draw from in drafting new legislation. Where some have been bogged down by private sector outcry, others have effectively utilized consultation sessions to collaborate with all stakeholders.

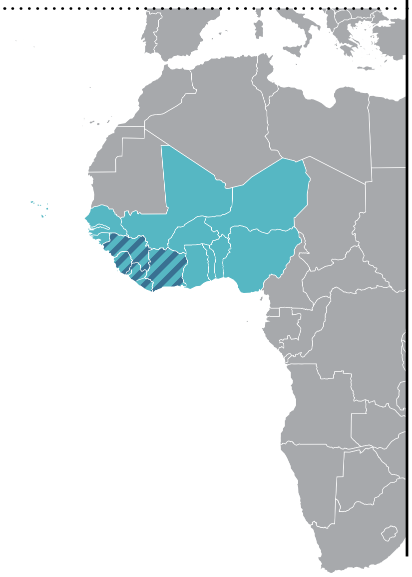
As the most advanced mining market by far, Ghana's regulatory framework is often used as a model by neighbouring countries. In some ways this has disadvantaged its mining market as its own favourable policies are mirrored elsewhere. "Ghana needs to clean up its mining regulations in order to keep pace with other regionally attractive destinations such as Burkina Faso and Côte d'Ivoire; we expect to see an increased focus on doing so from the government," said Simon Meadows Smith, managing director of SEMS Exploration, an exploration services firm.

While Ghana has felt pressure to join in the regulation reform game ("People are calling for more benefits to communities, which will mean coming up with a regime where there is a tilt point at which some profit goes to government," said Michael Cobblah, country representative for Ghana at Ecobank Development Corporation), its influence continues to benefit the wider region when it comes to the finer points of regulation. With more closely regulated environmental requirements due to its long history of mining, Ghana has initiated programs such as AKOBEN that can serve as a regional model for more developing markets.

AKOBEN, which is an environmental performance rating and disclosure initiative, was first implemented in 2010. Managed under Ghana's Environmental Protection Agency, the country's mining and manufacturing sectors are ranked on a colour scale for their treatment of environmental issues such as hazardous waste management, toxic and non-toxic releases, corporate social responsibility, and community complaints. Since 2010, subsequent annual rankings have shown improvements made by more than half of the evaluated mining companies and the Ghanaian government is now working to extend the program to small-scale mining. While resources for implementation remain constrained, the program is a step in the right direction for a region where conflicting environmental and mining statutes are a chronic problem.

REGIONAL ORGANISATIONS

- MANU RIVER UNION
- ECOWAS



In neighbouring Côte d'Ivoire, its young mining sector has demonstrated the pitfalls of bureaucratic and uninformed regime change. With reform underway since 2012, Côte d'Ivoire's administration has struggled to devise legislation attuned to sector dynamics. "The mining law's first draft introduced a production sharing agreement. Production sharing agreements have been applied in the oil and gas sector, however the mining industry is quite different and the proposal was not accepted by the mining companies. While it can be analysed as an option for small mining companies that are trying to access more financing, production sharing agreements cannot work for big mining companies," said Georges Kouadio, partner at the Ivoirian law firm KSK Avocats.

After a reshuffling of the mining portfolio in mid 2013, moving it within the Ministry of Industries, rather than the Ministry of Energy, Côte d'Ivoire has further prolonged its reform process in hopes of a newly informed approach. As a result of delays, however, permitting has slowed down dramatically. Only in the second half of 2013 did exploration permits begin to be issued again, unfortunately coinciding with one of the sector's lowest downturns.

Burkina Faso, on the other hand, is emerging as a regional success story to be emulated. After beginning reform discussions in 2012, draft legislation for a new mining code has already been approved by the Council of Ministers of Burkina Faso and is now facing consideration by the National Assembly. "We have good dialogue between the government and the Chamber of Mines. The problem is the perception that the sector does not contribute enough to the development of the country. The Chamber of Mines commissioned a study by KPMG to analyze the sharing of mining benefits in Burkina Faso, comparing the actual code with what is proposed by the assembly. This study has had a positive effect on policy makers and we are arriving at a code and an administration that balances the sharing of benefits to encourage investors," said Elie Justin Ouedraogo, country director for gold miner SEMAFO and president of the Burkina Faso Chamber of Mines.

REGIONAL REGULATORY HARMONIZATION

In August 2013, leaders from Sierra Leone, Guinea, Liberia and Côte d'Ivoire met to discuss harmonizing their codes and tariff and tax laws in order to create a cohesive and balanced regional industry. The four are linked by their membership in the Mano River Union, an international association formed originally by Sierra Leone and Liberia in the 1970s.

One of the most persuasive benefits of a regionally harmonized mining regime would be the facilitation of infrastructure development, an issue pertinent to the Manu River Union states. If less regulatory hurdles were to stand in the way of interregional transport, many of the region's infrastructure-challenged projects teetering on the brink of feasibility could make significant strides.

The region's iron ore potential in particular could be unleashed by more transnational cooperation. In the case of Guinea's Simandou iron ore project, which has among its investors Rio Tinto, Vale and BSG Resources, it could benefit hugely from the use of shipping routes and rail links through neighbouring Liberia (approval for which has been granted to fellow iron ore developer Sable Mining Africa Ltd with their Nimba project).

For transnational cooperation to extend beyond sub-regional groups such as the Manu River Union, regional governing bodies such as ECOWAS and WAEMU will have to provide leadership. Given the immense task that harmonization will be, precedents set by smaller groupings can help to pave the way towards reform.

WAEMU, as a larger sub-regional group formed of eight member nations, for its part has issued a draft framework for a Common Mining Code to govern the granting and ownership of mineral titles, as well as implement an environmental protection program, set up an applicable tax system and standardized policies for recruitment and procurement. The WAEMU initiative is similar to that of ECOWAS, which has issued the ECOWAS Directive as a precursor to the Common Mining Code that all member states would adopt, followed by a Regional Mining Policy that would be implemented in support of the code's policies. ECOWAS had originally planned for ratification of the code in 2012, although this has yet to occur as a result of stalled negotiations.

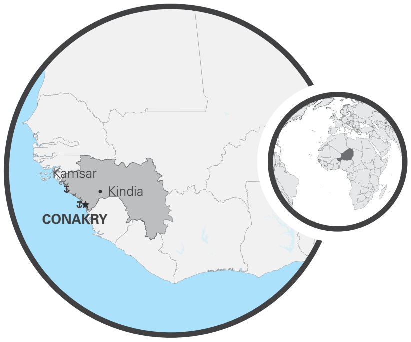
WAEMU may be able to bring about its code within a shorter timeline due to its smaller size, though this will require the two bodies to ensure that their harmonizing regimes are harmonized with each other. ECOWAS's draft framework would apply to member states, and therefore it remains unclear how the systems would interact given that all WAEMU members are also part of ECOWAS.

Leadership on the part of successful mining jurisdictions such as Ghana and Burkina Faso will be crucial to any regional realization of a cohesive code. While the road will be a challenging one, West Africa cannot afford to let its mineral wealth further divide its countries. On a global level, these burgeoning countries must band together to become a more competitive international mining force.

"Mining in West Africa has a bright future. Ten years ago Burkina Faso, Mali and Ghana were the only states that were interested in mining. Today, Côte d'Ivoire, Senegal, Guinea and Mauritania can be added to the list. However, in order to succeed, these countries should not only harmonise their legal statues, but also their environmental, tax and repatriation policies," said Kebe of Geni & Kebe. "This of course is a challenging process, but if ECOWAS can succeed in agreeing on the same legal rules in many aspects of their economies, they cannot leave out mining sector." •

Guinea

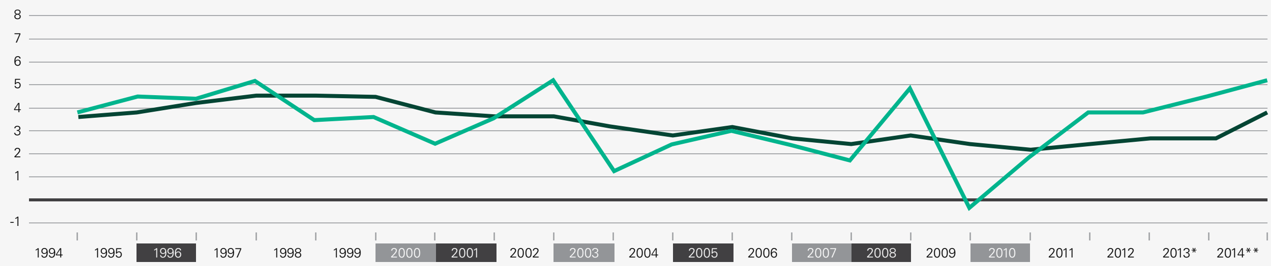
The former French colony of Guinea was ruled for three decades after independence by president Touré. After his death president Conté took power, who dies in 2008. Since then Guinea's political system has consisted of coups, one successful election in 2010, attempted assassination attempts, and widespread protests in 2013. The mineral industry accounts for over 25% of Guinea's economy: the country is a globally significant producer of bauxite and diamonds, and also has gold, iron ore, manganese, nickel, and uranium potential.



Population 11,176,026 (July 2013 est)
Land Area 245,857 sq km
Official Language(s) French
Capital Conakry
Chief of State President Alpha Conde
Head of Government Prime Minister Mohamed Said Fofana
GDP (PPP) $12.25 billion (2012 est)
Growth Rate 4.8% (2012 est)
GDP per Capita $1,100 (2012 est)
Economic Sector Breakdown agriculture: 12.8%, industry: 48.5%, services: 38.7% (2012 est)
Exports: $1.785 billion (2012): bauxite, alumina, gold, diamonds, coffee, fish, agricultural products
Imports: $2.708 billion (2012): petroleum products, metals, machinery, transport equipment, textiles, grain and other foodstuffs
Major Trade Partners Chile, China, Spain, Netherlands

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



A quarter of Guinea's armed forces mutiny over low pay and set the presidential palace on fire.

Rebels begin incursions in Guinea's border regions, in action that will eventually cause massive displacement.

Constitutional amendments lengthen presidential term limits, leading to criticisms of president Lansana Conte.

President Conte wins a third presidential term, although elections are boycotted by the opposition.

Alpha Conde, head of the main opposition Guinean People's Rally, returns from exile.

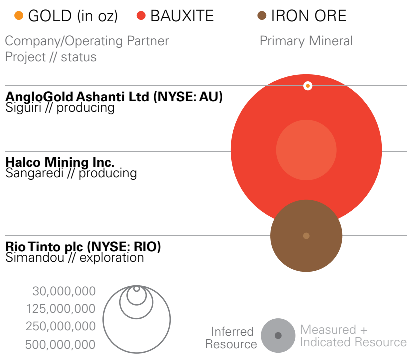
Massive strikes and violent protests occur, leading to Conte sacking several government figures.

Conte dies and the military siezes power, installing Captain Moussa Dadis Camara as president.

Alpha Conde is declared the winner of presidential elections overseen by the military junta.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

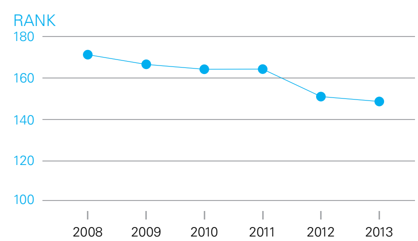
as of 2011
in mt unless otherwise stated

Bauxite	17.593.100
Alumina	574.000
Diamond**	235.400
Gold***	15.779
Salt	15.000

**in carats ***in kilograms

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

1036

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

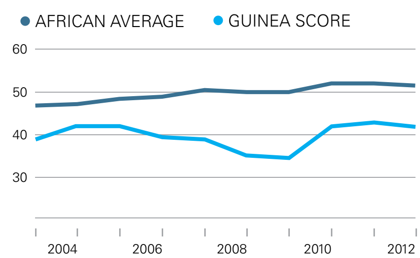
2007 21.2%

2011 21.6%

These values do not include artisanal mining. Revenue Watch places mining's contribution to GDP at around 20%.

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

● GUINEA ● AFRICA ● WORLD

	GUINEA	AFRICA	WORLD
Railway - km/10,000 km2	48	18.2	76.2
Roads - km/1,000 km2	180	204	904
Electricity - kWh/capita (gross production + imports - exports - losses)	86	592	2933

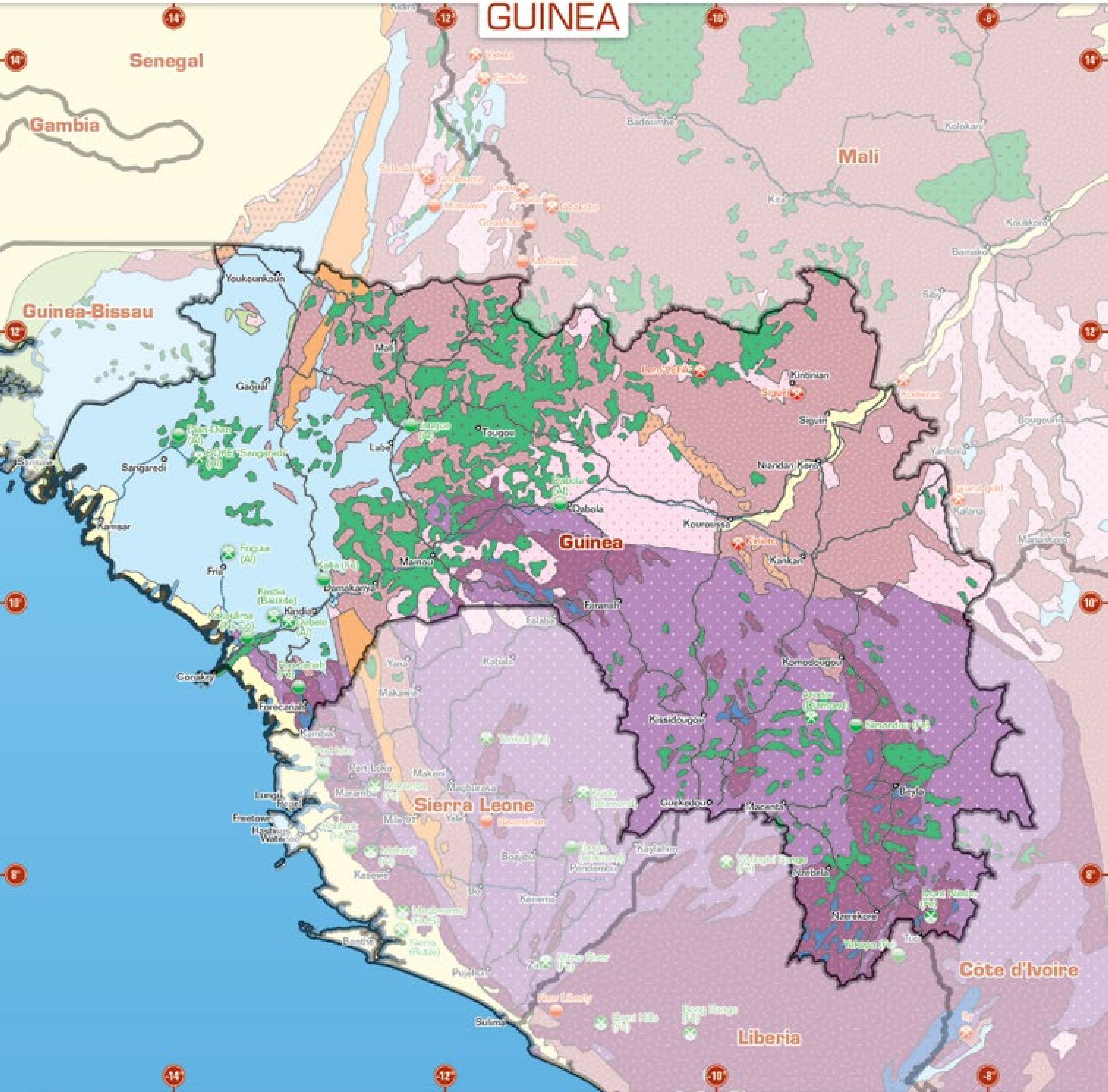
% 25 50 75 100

BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	179	179	175
Index of Economic Freedom (177)	141	137	133
Global Competetiviness Report (148)	-	141	147

GUINEA



Your feet on the ground in Africa

NORTH

0 50 100 150

KILOMETERS

GOLD MINES
- Existing
- Gold resources
- Closed

OTHER MINERALS
- Existing mines
- Projects
- Closed mines

CENOZOIC	MESOZOIC	PALEOZOIC	PROTEROZOIC	ARCHEAN
Sediment	Sediment	Sediment	Sediment	Volcanic felsic
Volcanic felsic	Volcanic felsic	Quartzite	Quartzite	Volcanic mafic
Volcanic mafic	Volcanic mafic	Volcanic felsic	Volcanic felsic	Plutonic felsic
Plutonic felsic	Plutonic felsic	Volcanic mafic	Volcanic mafic	Plutonic mafic
Plutonic mafic	Plutonic mafic	Plutonic felsic	Plutonic felsic	Metamorphic
	Metamorphic	Plutonic mafic	Plutonic mafic	Amphibolite
		Metamorphic	Metamorphic	
			Amphibolite	

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

GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84

Map drafted by **Stanislas de Stabenrath**: stan@sems-exploration.com and **David Byrne** -

Contribution of Paterne Meledje and Mining Atlas - www.mining-atlas.com

Graphic design: www.arcildesign.com

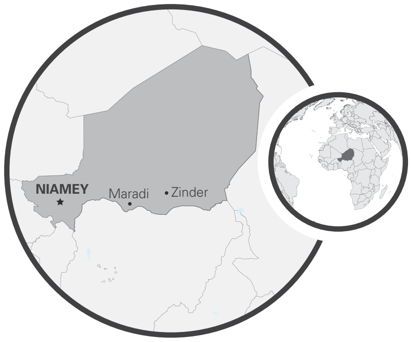
www.sems-exploration.com

SEMS EXPLORATION

THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

Niger

The landlocked nation of Niger, a former French colony, is the largest country in West Africa. It became a multiparty democracy in 2010, after a turbulent few decades since independence, yet still ranks among the poorest countries in the world and GDP growth has been erratic. Efforts are being made to tackle corruption. In the mining sector, Niger is one of the world's leading producers of uranium and also produces coal, gold, gypsum, silver, tin, and some industrial minerals.



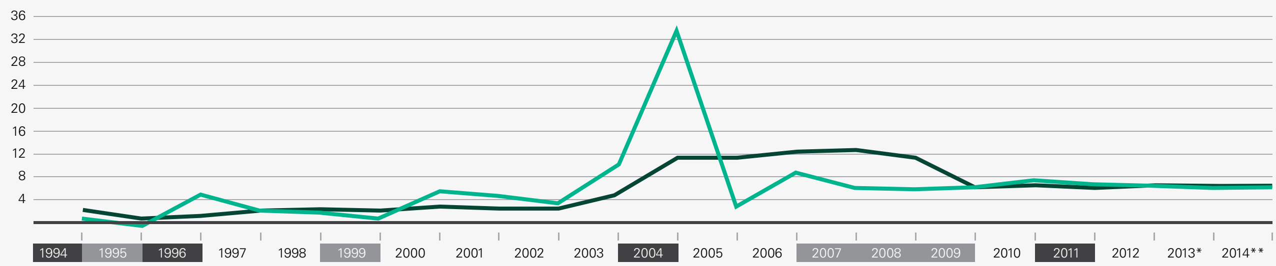
Population 16,899,327 (July 2013 est)
Land Area 1.267 million sq km
Official Language(s) French
Capital Niamey
Chief of State President Issoufou Mahamadou
Head of Government Prime Minister Brigi Rafini
GDP (PPP) $13.53 billion (2012 est)
Growth Rate 14.5% (2012 est)
GDP per Capita $900 (2012 est)
Economic Sector Breakdown agriculture: 39.6%, industry: 17.1%, services: 43.2% (2012 est)
Exports: $1.654 billion (2012): uranium ore, livestock, cowpeas, onions
Imports: $2.491 billion (2012): foodstuffs, machinery, vehicles and parts, petroleum, cereals
Major Trade Partners US, Nigeria, France, Russia

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU

● BY YEAR ● 5-YEAR AVERAGE

*predicted
**forecast



Coalition government falls apart

Peace accords signed with Tuareg rebels

Col. Ibrahim Baré Maïnassara leads a coup and wins the subsequent presidential election

Baré is assassinated in a coup, a constitutional referendum and elections are held, and Tandja Mamadou becomes president

Mamadou wins a second terms in an election observers called largely free and fair

The Second Tuareg Insurgency, calling for greater transparency and larger Tuareg representation in the armed forces, starts in February 2007 and ends with a ceasefire and amnesty in May 2009. In December 2009 a constitutional crisis led to the imprisonment of Tandja.

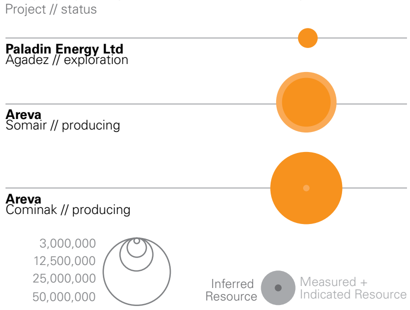
Mahamadou Issoufou is elected president in a close-fought election.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION

● URANIUM OXIDE (in lbs)

Company/Operating Partner Project // status — Primary Mineral



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

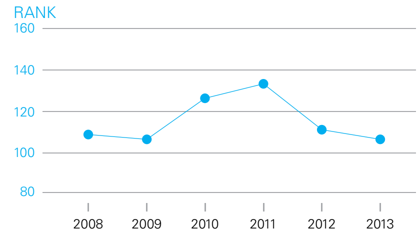
as of 2011
in mt unless otherwise stated

Gold**	10.685
Manganese	60.000

**in kilograms

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

2007 **4.8%**

2011 **6.3%**

These values do not include artisanal mining.

ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

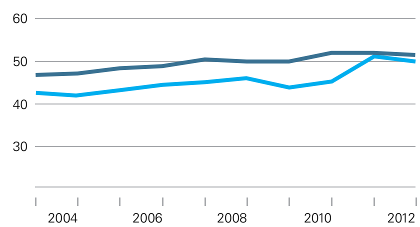
-

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION

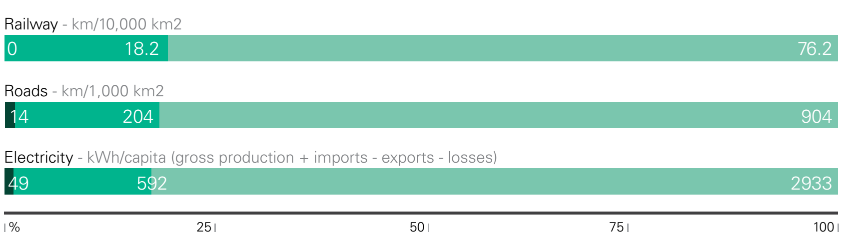
● AFRICAN AVERAGE ● NIGER SCORE



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

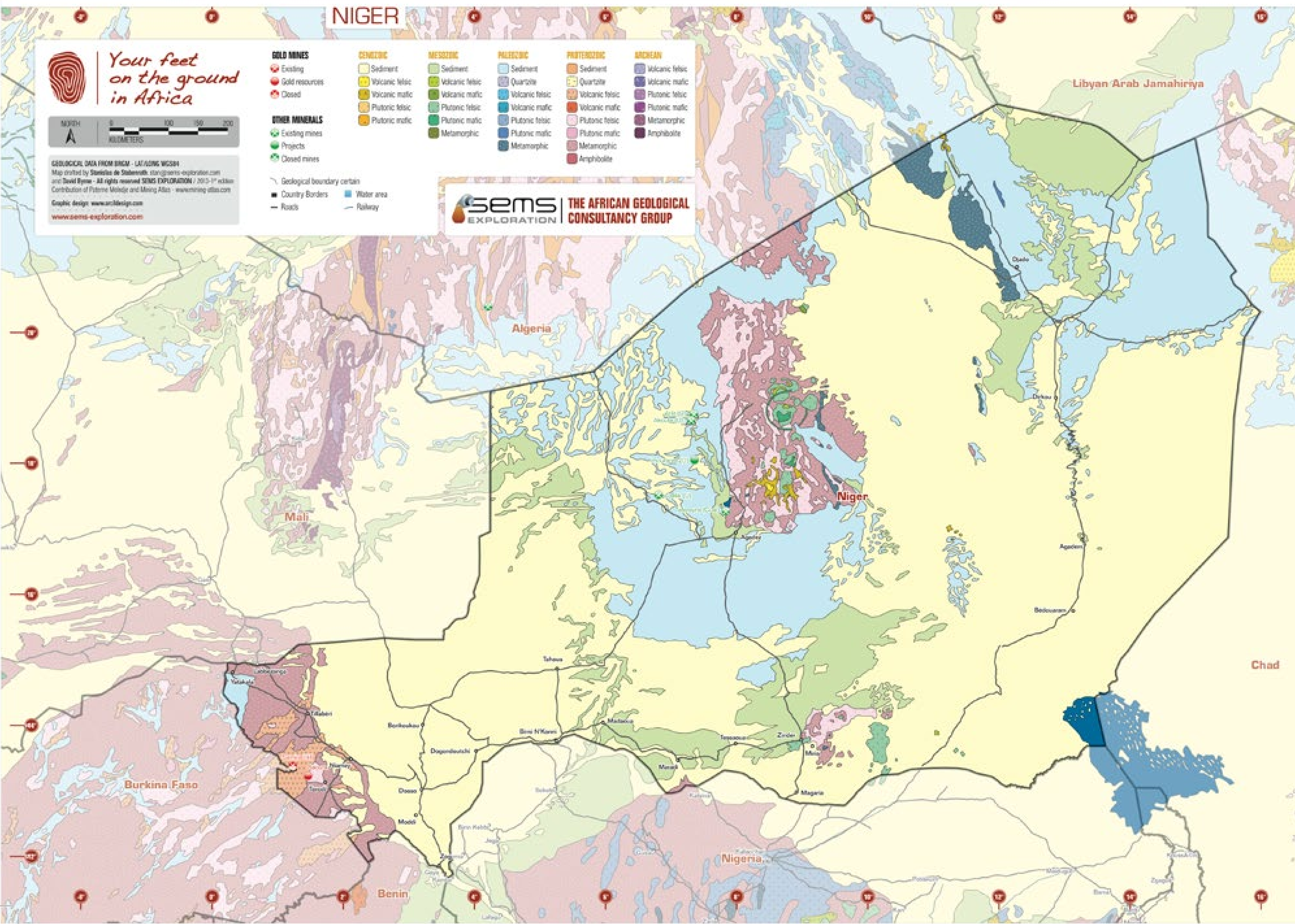
● NIGER ● AFRICA ● WORLD



BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	173	174	176
Index of Economic Freedom (177)	125	128	127
Global Competetiveness Report (148)	-	-	-


NIGER
Your feet on the ground in Africa
NORTH
0 100 150 200
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Graphic design: www.arcildesign.com
www.sems-exploration.com
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
Geological boundary certain
Country Borders
Roads
Water area
Railway
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
SEMS EXPLORATION
THE AFRICAN GEOLOGICAL CONSULTANCY GROUP
Libyan Arab Jamahiriya
Algeria
Mali
Niger
Chad
Burkina Faso
Benin
Nigeria
Tahoua
Birni N'Konni
Maradi
Zinder
Magaria
Dosso
Niamey
Tillabéri
Dogondoutchi
Agadez
Dirkou
Bedouaram

INTERVIEW WITH

Dr. Mamadou Dikouma

Secretary General, Ministry of Mines and Industrial Development
THE REPUBLIC OF NIGER

Niger's mineral industry is old and diverse, but it is also lesser known if compared to the mining industries of many other African countries, such as Botswana or Ghana. Briefly, introduce us to Niger's mining industry.
Niger is the fourth largest uranium producer in the world, a position that we are now seeking to fortify through increasing our production capacity. We have maintained this rank for the last four decades. We are also a producer of gold and coal. Resource exploration in Niger is now growing, with over 100 licenses granted and the government actively seeking to promote between 400 to 500 more. We believe that the successes of these resource exploration companies will prove what we already believe to be true: that our country's mineralization is both rich and diverse. We expect that platinum and nickel deposits will be found within the country.
Mining regulation in Niger is governed by the country's mining code, which was adopted in 2006. This document sets forth an individual's mineral rights and the country's mineral exploration licensing process. We have had the framework for this agreement for over 20 years, placing Niger's mining code among the oldest in Africa. Our mining code is backed by a stabilization agreement, which guarantees that all those who invest in the industry will see their investments grand-fathered in should any changes to country's mining code be made.
All those who operate within Niger are required to establish a local company that acts as a vehicle to their investment. Thus, while all companies operating in Niger are technically local, the shareholder structure of these companies is highly international.

What changes will likely be made to Niger's mining code?
We believe that once every ten years a country should review its mining code, to ensure that regulation mirrors the state of the industry. We anticipate there will not be any changes to the fundamental structure of the mining code; however, several areas will be updated, such as the industry's tax structure. We would like to simplify our system of tax exemptions and through it minimize the tax burden of over 90% of the mining industry and METS.

What trends have you seen emerge in evaluating current license applications?
In evaluating the applications of the more than 50 businesses that have applied for licenses, we have noticed several trends with regard to both the geographical areas of the country in which juniors would like to operate and the commodities that they are seeking to explore. Gold and base metals are of keen interest to resource explorers, as is uranium given the strong fundamentals of the industry. The Aïr Mountains in the northwest of the country have shown potential for titanium and platinum mineralization.

Poor perceptions of sovereign risk are one of the most difficult hurdles for resource-rich, developing countries to overcome. How does the Government of Niger placate investors' fears that their projects, if successful, might be nationalized?
The history of our mineral industry extends forty years into the past. In this time period, there has not been one incident of nationalization; there is no precedence. On the back of transparent policies that guarantee the safety of investment capital, we have built the world's fourth largest uranium industry. Our policies reflect this; they prohibit the retroactive enforcement of policies that might negatively affect one's mine. This is a comment on our commitment to investors.

When investors compare destinations for mining capital, they compare between jurisdictions located throughout the world – be it in Asia, South America, or Africa – not just within one region. What is it that makes Niger uniquely appealing as destination for investment capital?
Niger boasts a stable political system. We are fully democratic country, our last election was in 2011 and we will not have another for five more years, until 2016. Niger's current government has committed fully to the promotion and development of its mining industry. While there has been spillover from conflict in nearby Libya, this has had a minimal impact on our society as we have allowed migrants into the country under the condition of demilitarization. Neighboring Mali, where no such prohibition exists, has seen far more dire consequences as a result of regional conflicts.

Security of our industries is of extreme importance to Niger. We have spent more money on the development of a secure and stable environment surrounding our uranium miners than we often accrue in a year because we believe that the key to developing our country is found in the creation of a healthy mining industry. In Niger, the safety of our people and investors is paramount. •

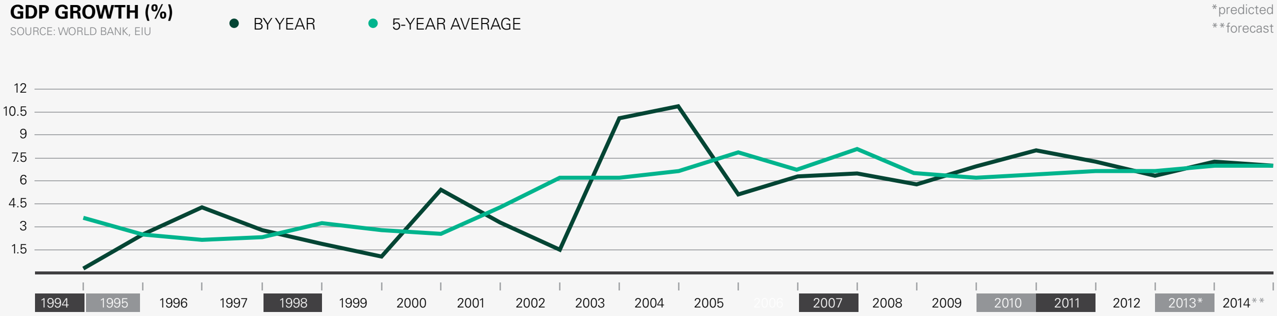
Nigeria

Nigeria, a former British colony, is the most populous country in Africa. Its size and rapid economic development means that it is beginning to challenge South Africa's traditional economic and political dominance of the African continent. Nigeria's economy has traditionally been based on hydrocarbons, yet the government is encouraging the mining sector in an effort to diversify the economy. Currently the country produces gold, gypsum, iron ore, niobium, tantalum, tin, and some industrial minerals.

POPULATION 174,507,539 (July 2013 est)
LAND AREA 923,768 sq km
OFFICIAL LANGUAGE(S) English
CAPITAL Abuja
CHIEF OF STATE President Goodluck Jonathan
HEAD OF GOVERNMENT President Goodluck Jonathan
GDP (PPP) $450.5 billion (2012 est)
GROWTH RATE 7.1% (2012 est)
GDP PER CAPITA $2,700 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 30.9%, industry: 43%, services: 26% (2012 est))
Exports: $97.46 billion (2012): petroleum and petroleum products, cocoa, rubber
Imports: $70.58 billion (2012): machinery, chemicals, transport equipment, manufactured goods, food and live animals
MAJOR TRADE PARTNERS US, China, India

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



Moshood Abiola, winner of the 1993 elections, is arrested by General Sani Abacha for declaring himself president.

The EU imposes sanctions and Nigeria is suspended from the Commonwealth following the execution of writer Ken Saro-Wiwa.

Abacha dies in suspicious circumstances and is replaced by General Abdulsalami Abubakar.

Umaru Yar'Adua of the ruling People's Democratic Party wins the presidential elections with 70% of the vote.

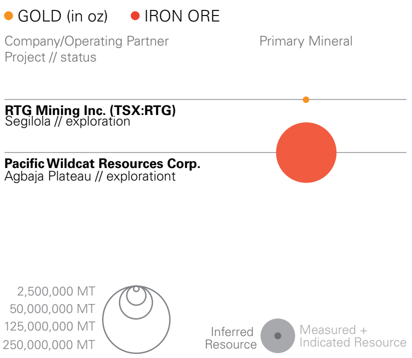
President Yar'Adua dies after a long illness and is replaced by vice president Goodluck Jonathan.

Goodluck Jonathan wins the presidential elections with 58.89% of the vote.

The government declares a state of emergency in the states of Yobe, Borno and Adamawa due to Boko Haram.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

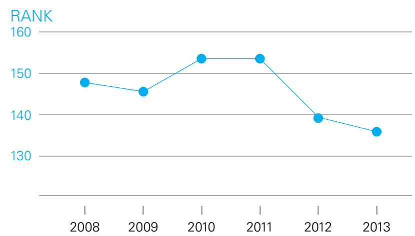
as of 2011
in mt unless otherwise stated

Aluminium	15,000
Barytes	11,000
Coal (sub-bituminous)	44,000
Columbite	128
Feldspar	1,600
Gold**	3,700
Iron Ore	50,000
Kaolin	100,000
Lead	9,100
Tin	1,800

**in kilograms

TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTIONS INDEX

SOURCE: TRANSPARENCY INTERNATIONAL



INFLATION

SOURCE: WORLD BANK

2011 **10.8%**
2012 **12.1%**

MINING SECTOR CONTRIBUTION TO GDP

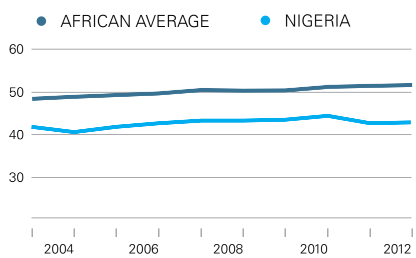
SOURCE: AFRICAN ECONOMIC OUTLOOK

2007 **36.6%**
2011 **40.9%**

These values do not include artisanal mining. The titanium project of Base Resources, located in Kwale, is predicted to increase mining's contribution by 1%.

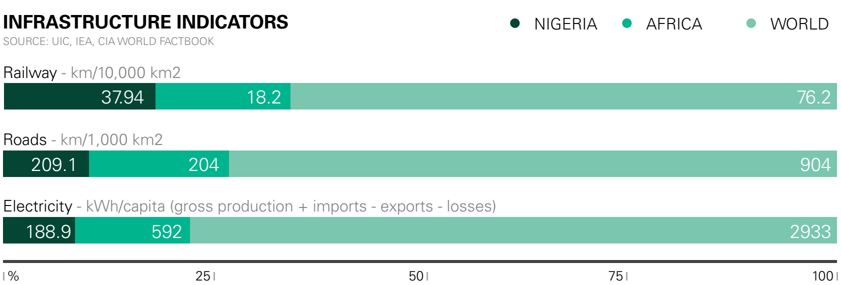
IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

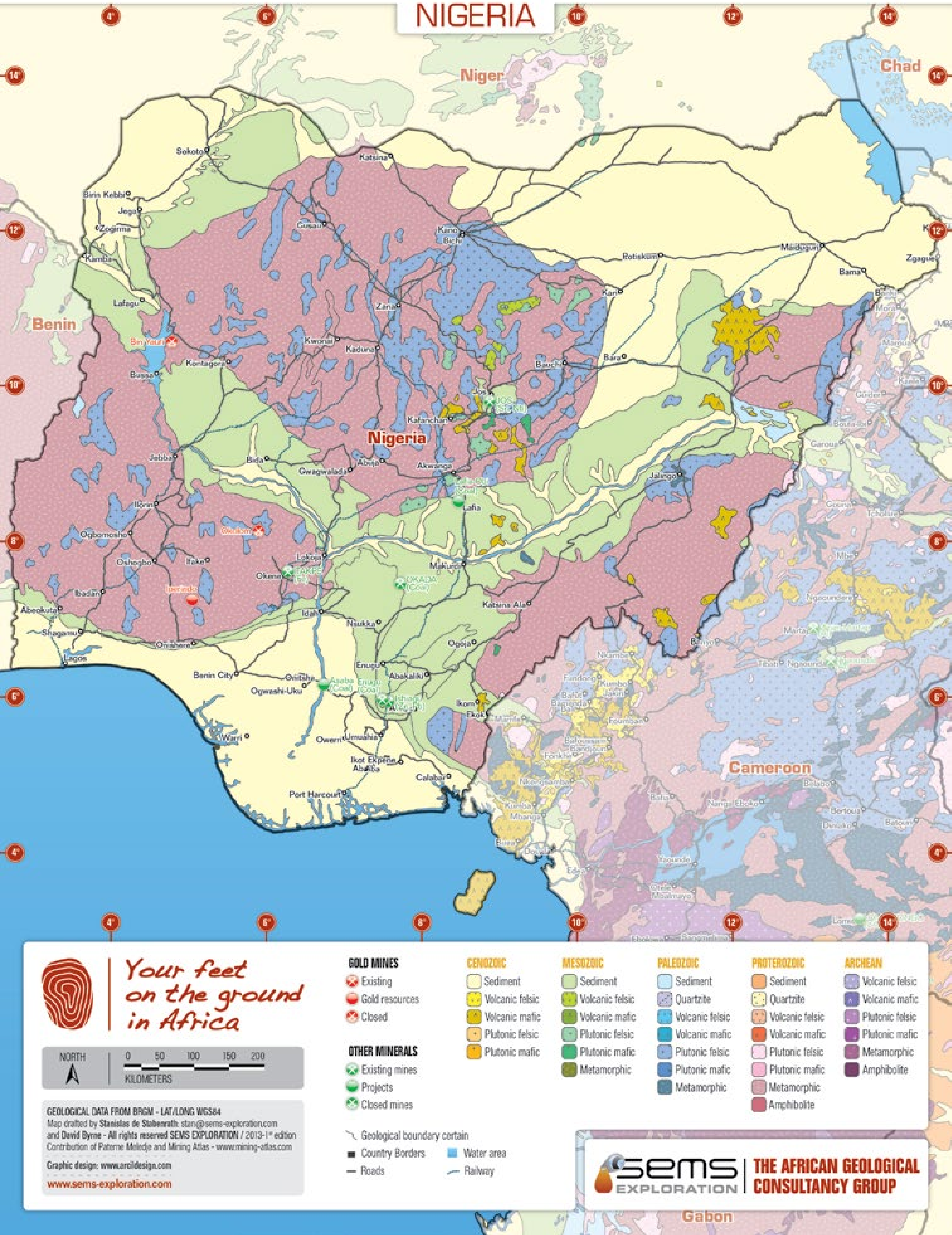


BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	133	138	147
Index of Economic Freedom (177)	116	120	129
Global Competetiviness Report (148)	127	115	120

NIGERIA



Niger
Chad
Benin
Nigeria
Cameroon
Gabon
Sokoto
Katsina
Birin Kebbi
Jega
Zogirma
Gusau
Kano
Bichi
Kamba
Potiskum
Maiduguri
Zgague
Bama
Kari
Lafagu
Zaria
Kwonai
Kaduna
Bara
Bauchi
Bin Yauri
Kontagora
Bussa
Jos
Kafanchan
Jebba
Bida
Abuja
Gwagwalada
Akwanga
Jalingo
Lafia
Ilorin
Ogbomosho
Okuta
Oshogbo
Ifake
Lokoja
Okene
Makurdi
Ibadan
Iperindo
Abeokuta
Idah
Katsina Ala
Shagamu
Nsukka
Oriahere
Ogoja
Lagos
Enugu
Benin City
Onitsha
Abakaliki
Ogwashi-Uku
Ikom
Ekok
Warri
Owerri
Umuahia
Ikot Ekpene
Calabar
Port Harcourt
Ngaoundere
Yaounde
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
Geological boundary certain
Country Borders
Water area
Roads
Railway
Your feet on the ground in Africa
NORTH
0 50 100 150 200
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com
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SEMS EXPLORATION
THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

The Honourable Musa Mohammed Sada

Ministry of Mines and Steel Development
THE FEDERAL REPUBLIC OF NIGERIA

Nigeria has been highly focused on oil, overshadowing the mineral industry. What steps has the Ministry of Mines and Steel Development put in place to establish a currently almost non-existent industry?
At a point in time the mining industry was ahead of the oil and gas sector. We were a leading producer in the world for certain minerals including colombite. Mining was one of the mainstays of the country until the discovery of the oil in commercial quantities. We had an influx of oil revenues, which made it easy for government to put less emphasis on the mineral industry. There were also policy decisions taken in the 1970s that affected the growth of the mining industry at the time. The nationalisation policy was one of these that caused a total collapse in the industry as we did not have the skills to operate the mines when the expatriates left which has now resulted into a large informal mining industry.
The government has taken the decision to create another source of revenue other than oil and gas and to diversify the economy. It was then decided the mining industry should support the industry but it needed major reforms. With support from the World Bank we entered into major legislation and regulation reforms to look at a sustainable management of mineral resources programme to help Nigeria establish a legal and institutional restructuring of the sector. The major decision was that it needed to be private-sector driven.

Nigeria has not been at the forefront of investors minds despite the evidence for a vast array of resources. With several new projects coming online, what commodities are attracting the most interest?
We currently have an electric power deficit so we are encouraging the development of coal mining to improve on our power stock. We also have a large stock of bitumen and being a oil producer it would be very easy to key into bitumen exploitation and leverage on our oil experience. There is also gold, the diamond of the world and we have several deposits as well as other industry minerals such as limestone. The need for infrastructure development in Nigeria is critical and cement based materials is in abundance so we need to unleash this and help create the support for the construction industry.
On the last airborne we were able to identify in commercial quantity 34 mineral types and there has been a high interest in special metals from the Chinese market so this is an area that we are doing a lot of work to encourage investors. We are always on the lookout for investors that are interested in certain specific mineral types. We are establishing a mineral promotion centre that can provide any potential investor with a body of information on a specific commodity for him to take an investment decision.

Despite some of these advantages there is the perception of the international investment community about the lack of transparency and safety concerns in the country. What strategies is the Ministry's putting in place to mitigate these risks and to educate investors about these opportunities?
When you submit yourselves to the international checks and balances of the international watchdog that is the best you can do, and we have many anti-corruption agencies put in place. Previously this year we subjected ourselves to an EITI audit and the rating we received was much better than the oil industry. We are learning from the mistakes that have happened in the oil industry and making sure that we do not allow ourselves to fall into that again.

What in your view sets Nigeria apart from its regional neighbours in terms of attracting international investment?
The first and foremost is that if you go into a place to do business one of your main concerns is market. Nigeria is positioned at the heart of Africa and therefore you can expand to the west coast right down to the cape. Secondly, the recent completed survey has exposed us to have better geology than our neighbouring countries.
We are lucky that our original infrastructure was largely established to exploit some of these minerals in the past and we have three rail lines, all of them snaking through mineral deposits. These lines traverse through the country down to the ports. We are currently working on upgrading some of our airports which are important for certain commodities such as precious stones.
Up until the mid 1970s we had a mining corporation with highly skilled engineers and many of these are still around and we are utilising their knowledge to turn around the sector. If you go to Ghana you will be surprised to find that even amongst the investors a large portion of them are Nigerians. •

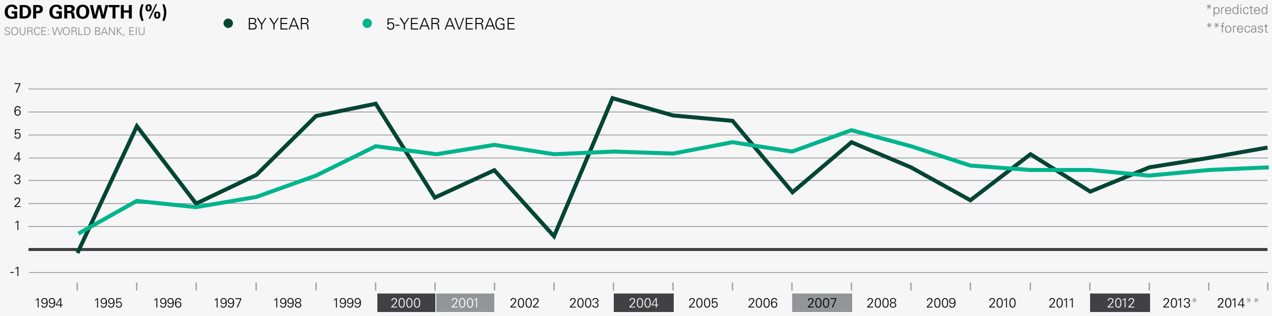
Senegal

Senegal is a former French colony; before that it had a rich history as the home of numerous kingdoms and empires. Since independence in 1960 it has established a relatively strong democratic system and accompanying positive GDP growth (even if slightly erratic). With regards the mining industry, Senegal counts among the world's leading producers of phosphates, and also produces gold and various industrial minerals. Geological potential also exists for iron ore, titanium and zircon.

POPULATION 13,300,410 (July 2013 est)
LAND AREA 196,722 sq km
OFFICIAL LANGUAGE(S) French
CAPITAL Dakar
CHIEF OF STATE President Macky Sall
HEAD OF GOVERNMENT Prime Minister Abdoul Mbaye
GDP (PPP) $26.5 billion (2012 est)
GROWTH RATE 3.7% (2012 est)
GDP PER CAPITA $1,900 (2012 est)
ECONOMIC SECTOR BREAKDOWN agriculture: 15.3%, industry: 22.7%, services: 61.9% (2012 est)
Exports: $2.458 billion (2012): fish, groundnuts (peanuts), petroleum products, phosphates, cotton
Imports: $5.109 billion (2012): food and beverages, capital goods, fuels
MAJOR TRADE PARTNERS Mali, France, India, China

GDP GROWTH (%)

SOURCE: WORLD BANK, EIU



Abdoulaye Wade of the Sengalese Democratic Party wins presidential elections, ending 40 years of Socialist Party rule.

The constitution is changed to limit presidential rule to two terms of five years, rather than seven.

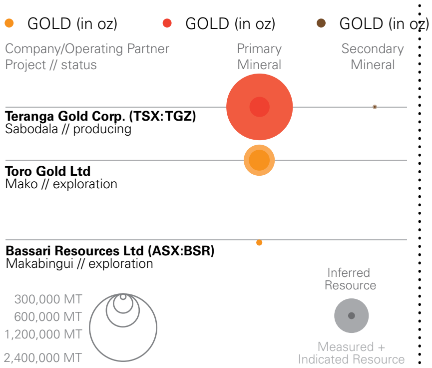
President Wade signs a peace treaty with MFDC in Casamance, ending West Africa's longest-running civil conflict.

Wade wins a second term as president with 55.90% of the vote, as part of the Sopi 2007 coalition.

Macky Sall of the Alliance for the Republic defeats incumbent Wade in the presidential elections.

SELECTED DEPOSITS

SOURCE: GLOBAL BUSINESS REPORTS, COMPANY INFORMATION



MINE PRODUCTION

SOURCE: BRITISH GEOLOGICAL SURVEY

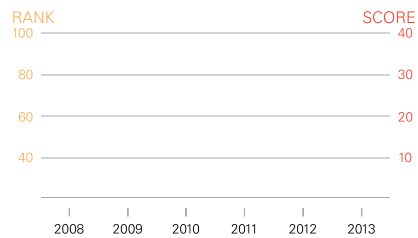
as of 2011
in mt unless otherwise stated

Attapulgite	180,300
Gold**	4,089
Phosphate Rock	1,500,000
Salt	258,200

**in kilograms

FRASER INSTITUTE ANNUAL SURVEY OF MINING COMPANIES

SOURCE: FRASER INSTITUTE



ALL-IN SUSTAINING COSTS ($/OZ AU)

SOURCE: BANRO CORPORATION Q3 2013 FINANCIAL STATEMENT

1289

AISC is based on the World Gold Council's guidance note of June 2013 and is a metric including all costs related to production plus costs related to sustaining production. Country values represent the average from those companies who make this information available, and is taken from Q3 results.

MINING SECTOR CONTRIBUTION TO GDP

SOURCE: AFRICAN ECONOMIC OUTLOOK

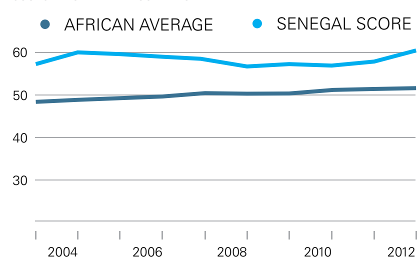
2007 **1.1%**

2011 **2.9%**

These values do not include artisanal mining. The USGS placed the 2008 value at 13.4% of GDP, and a report by the French Ministry of Foreign Affairs placed the value at 28% in 2011.

IBRAHIM INDEX OF AFRICAN GOVERNANCE

SOURCE: MO IBRAHIM FOUNDATION



INFRASTRUCTURE INDICATORS

SOURCE: UIC, IEA, CIA WORLD FACTBOOK

SENEGAL • AFRICA • WORLD

	SENEGAL	AFRICA	WORLD
Railway - km/10,000 km2	46.05	18.2	76.2
Roads - km/1,000 km2	71.21	204	904
Electricity - kWh/capita (gross production + imports - exports - losses)	195	592	2933

% 25 50 75 100

BUSINESS ENVIRONMENT RANKING

SOURCE: WORLD BANK, IFC, HERITAGE INSTITUTE, WEF

Name (out of)	2012	2013	2014
Doing Business Rank (189)	154	176	178
Index of Economic Freedom (177)	120	116	125
Global Competetiviness Report (148)	111	117	113

SENEGAL
Mauritania
Senegal
Gambia
Guinea-Bissau
Guinea
Mali
Podor
Dagana
Saint-Louis
Léona Ndiaye
Louga
Gueoul
Koki
Kébémer
Linguère
Dahra
Grande Côte (HMS)
Taiba (P)
Thies (P)
Pir-Goureye
Touba
Thiès
Dakar
Bargny
Khombole
Diourbel
Sindia
M'Bour
Fatick
Kaolack
Kaffrine
Matam
N'Diendouri-Ouali (P)
Bakel
Kidira
Kayes
Feto Niebe
Tambacounda
Vélingara
Médina Gonassé
Diouloulou
Kolda
Kounkané
Dabo
Tanaff
Ziguinchor
Sabodala
OJVG Sabodala
Massawa
Kedougou
Faleme (P)
Youkounkoun
-16°
-14°
-12°
16°
14°
12°
Your feet on the ground in Africa
NORTH
0 50 100
KILOMETERS
GEOLOGICAL DATA FROM BRGM - LAT/LONG WGS84
Map drafted by Stanislas de Stabenrath: stan@sems-exploration.com
and David Byrne - All rights reserved SEMS EXPLORATION / 2013-1st edition
Contribution of Paterne Meledje and Mining Atlas - www.mining-atlas.com
Graphic design: www.arcildesign.com
www.sems-exploration.com
GOLD MINES
Existing
Gold resources
Closed
OTHER MINERALS
Existing mines
Projects
Closed mines
CENOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
MESOZOIC
Sediment
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PALEOZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
PROTEROZOIC
Sediment
Quartzite
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
ARCHEAN
Volcanic felsic
Volcanic mafic
Plutonic felsic
Plutonic mafic
Metamorphic
Amphibolite
Geological boundary certain
Country Borders
Water area
Roads
Railway
SEMS EXPLORATION
THE AFRICAN GEOLOGICAL CONSULTANCY GROUP

INTERVIEW WITH

Aly Ngouille Ndiaye

Minister of Industry and Mines
THE REPUBLIC OF SENEGAL

What are the ministry's upcoming objectives in terms of your policies for the mining industry in the next year?
The Ministry would like to see some projects come into production, especially in the phosphate area for next year. We are expecting the beginning of the phosphate mine of Matam, with a capacity of 1.15 million mt, by the end of the semester. We may also have results from research coming from the phosphate area in the area of Lamlam in 2014. In 2015 and beyond, we will see some gold projects starting, with the beginning for development for Golouma project by the start of 2014. By 2014, we may also have a contract agreement with a company for the Faleme iron ore project and the beginning of development.

What development scenarios are you examining for the Faleme iron ore project, now under government control?
For Faleme to begin, we need to have the mine, as well as 750 km of rail transport, built. For a very large capacity, we will also need to have a port. We want to have companies that do not just extract the ore and send it abroad, but who want also to develop in the region all of the needs to transform this iron ore. With these three projects, we could be looking at the coming years for the mine development.

Currently the mining industry accounts for 3% of GDP. Given these projects in the, what is the role that you envision the sector playing within the growth of the national economy going forward?
The mining sector is considered as one of the sectors that may help Senegal in the development of the country to meet our goal of at least 7% to 8% growth in the next ten years. It may help us also to decrease our dependence on the balance of payments, which is negative right now. Products from mines could contribute at least 34% to exports and mining could also contribute a lot to GDP. For this, we have to develop three sectors: iron ore, phosphate and phosphate derivatives, and gold. The total increase of mining to GDP could be one-third in the next ten years.

With the 2012 grant that government has received from the World Bank to study the legal and fiscal framework for mining in Senegal, what are the goals and timeline for reform?
We started the process of reviewing the mining law in March. We organized meetings with mining companies and shared the report from the review of the mining convention in terms of its economic and social impact and from there we set up a committee where we have representations from all stakeholders—mining companies, the parliament, and the Chamber of Mines. Now we are engaging in discussions on fiscal terms and government-private partnerships, the environment, and social aspects. We hope by the first quarter of 2014 we will have the first draft ready to present before the cabinet and then later to the parliament. We want a code whichgives a fair share to the Senegalese people and the mining companies who are investing. We also want a mining code that will protect our environment.

Electricity is another key issue for mining here in Senegal. Could you tell us more about the planned transmission lines that will reach mining areas?
Most of the mining companies looking at iron ore and gold are located in the far east of Senegal, where the transport network does not reach. We have involved foreign companies in the plan for interconnection the mine fields and we are awaiting the responses from the mining companies. In three years, we will have production.

Do you have a final message about Senegal as a mining jurisdiction for our readers at Indaba™?
Senegal is a hub in terms of infrastructure and accessing West Africa. We have skilled people, engineers and geologists. Most mining companies that are working here have managers who have been trained here. We are a politically stable country and we have goods and services provided already in the country. We have been seeing the outsourcing of services, with more SMEs, companies from Canada and Australia incorporated here in Senegal to provide services to mining companies in all of the West African countries. We welcome foreign investors into the mining sector and we are working to make our reform process transparent and our investment code attractive. •

Amidst West Africa's mining boom, Senegal has not been in the spotlight as a leading regional destination, although its government is intent to change that. The country cannot boast the geological potential of neighbours such as Mali or Guinea, yet it is a jurisdiction with a stable political climate and a strategic location as home to one of the largest ports on the western coast. With attractive policies for mining investors, and a president who was formerly Senegal's Minster of Mines, Energy and Water, the country is counterbalancing its limited resources with strong legal and fiscal frameworks and an administration more attuned to the industry than many of its regional counterparts.

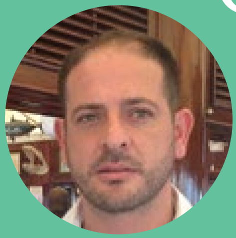
While the country has a tradition of phosphate mining that dates back over 50 years, formalised precious metals mining is a development of the last five years. In 2008 Senegal saw its first commercial gold mine enter into production at Sabodala, operated by Toronto-based Teranga Gold Corp. As a result, the sector's contribution to GDP rose from 1.5% to 3%. With the election of Macky Sall as president in 2012, Senegal is seeing a new administration for the first time since 2000 when Sall's predecessor Abdoulaye Wade assumed office. Aiming for a greater contribution from the sector to the national economy, Sall and his administration are taking on mining code reform and introducing new measures to increase local capacity and participation in the sector.

Ranked 178 of 189 countries on the World Bank's "Doing Business Index," the country has a far way to go to convince mining investors to set up shop. Yet its mineral diversity and near-term projects in the pipeline offer a stronger outlook for the sector's performance. Senegal's candidacy for EITI, the Extractive Industries Transparency Initiative, accepted in October 2013, will put the country further on the path to improving its investment climate.

REGULATORY ENVIRONMENT

Senegal has relied on its regulatory framework to boost its appeal as a mining destination; however, the country is no less immune to the regional trend towards mining legislation reform. In 2012, Senegal received a grant of $475,550 from the World Bank to finance a diagnostic study of the legal and fiscal framework of the mining sector and the ministry of mining. An outcome of this review will be a new mining code. The ministry has set a timeline for draft legislation to be proposed by the first quarter of 2014.

"Recently, the new government issued a policy to strike the right balance between state and investor interests. The mining sector in Senegal thus far has been more profitable for the investors, rather than the Senegalese state and community. The government and the mining companies are currently discussing how to balance this and what amendments need to be made in the existing contracts," said Mohamed Kebe, managing partner at Geni & Kebe.



> Senegal is a regional hub, in comparison to Mali, Guinea and Mauritania. The country has a smooth administrative framework, with administrative policies that are easy to understand and respected.
>
> - Mahmoud Rozz, General Manager, Bernabé Senegal

Assisting in the reform consultation process is the newly formed Chamber of Mines, which began its operations in fall 2013 with 20 founding members, representing producers and exploration companies in Senegal and soon to be accepting suppliers, contractors and foreign embassies. "It is an important step for the mining industry in Senegal to have a representative body that is participating in negotiation of important legislation," said Macoumba Diop, president of the Chamber of Mines and general manager of Teranga Gold Corp.

"The current mining code, which was created by the former government, is quite attractive for the mining companies. The current government sees that it is too favorable for the mining companies, while giving very little to the country and they want to see more revenue coming in. Such changes will be brought about after consultation with the chamber, because if implemented in a wrong way, they can scare away the investors," Diop added.

PRODUCTION AND EXPLORATION

GOLD

In the footsteps of Senegal's only large-scale gold mine, Teranga's Sabodala, other majors and mid-tier producers are developing gold projects in the east of the country. Randgold Resources' Massawa gold project has issued a resource estimate of 3 million ounces of refractory gold and further studies are underway. At IAMGOLD's Boto project, the gold producer published a maiden resource in early 2013 and has plans to complete a prefeasibility study in 2014. Teranga Gold, aiming to become a regional mid-tier producer, has the largest land package in Senegal was 10 exploration permits. At the end of 2013, Teranga acquired Oromin Explorations, bringing into their portfolio the Golouma gold project, which can be worked into the Sabodala mine plan.

STRATEGIC MATERIALS

In the gold-rich southeastern region of Kedougou, exploration for strategic materials such as iron, uranium, copper and chrome is also underway. A heavy mineral sands project, Grande Cote, a joint venture between French-owned ERAMET and the Australian company Mineral Deposits Limited, is expected to enter into production in 2014 for zircon. After several setbacks, the government is also seeking international partners for its Faleme iron ore project, which was brought back under state-ownership after developer ArcelorMittal halted the project due to lack of funding. The project has an estimated resource of 750 million mt.

ENCOURAGING GROWTH ACROSS THE VALUE CHAIN

The ease of doing business in Senegal is gradually improving as the government strives to put more incentives in place. RMA, a Senegalese accounting and audit firm that work with the mining sector, identifies negotiating a convention as the greatest challenge encountered by clients looking to invest in Senegal's mining sector. Small and medium-sized companies have more difficulty accessing finance, making most projects only possible for large, international investors.

"The climate is usually more favourable to large mining companies. For SMEs, the best way to find financing is merging or having some sort of network for support. The SMEs find it more difficult to obtain financing, because the resources needed are astronomical and the banks are reluctant to provide loans for such risky ventures," said Papa Alboury Ndao, managing partner of RMA.

In response to the challenges faced by small enterprises in Senegal, the government is establishing the National Economic Development Bank, which started operations in January 2014. In partnership with the National Guarantee Fund for Priority Investments (FONGIP), the National Economic Development Bank will make guarantees more accessible to small and medium-sized companies.

Due to Senegal's position in the region, small and large companies alike can target mining business beyond Senegal by basing themselves within its borders. To encourage use of Senegal's export infrastructure, the government has introduced the Free Export Enterprise statute. "Under the advantageous fiscal statute for exports in Senegal, if you are exporting 80% of your production, which is the case for most mining companies, you can benefit from several exemption and breaks such as lower corporation taxation," said Mouhamed Kebe of RMA.

Indeed, many service companies have achieved great success using Senegal as a base for the region. Yohannes Mekbebe, general manager of the Yeshi Group, parent company to Bernabé Senegal, a regional specialized industrial equipment supplier, explained that from Senegal Bernabé now has operations in Côte d'Ivoire, Senegal, Cameroon, the DRC and Gabon, with an impressive client list. "Bernabé has been working with the mining industry for over 60 years. We have supplied materials to the main mining companies in West Africa, from Rio Tinto and BHP, to IAMGOLD, Randgold, Newcrest, SMI and Cluff Gold. We also work with service providers to the industry like CMA Mining." •

SABODALA GOLD MINE COURTESY OF TERANGA GOLD CORPORATION

MINING IN SENEGAL Key Questions you need answers to

By Mouhamed Kebe Managing Partner, GENI & KEBE SCP, member of the Senegalese Bar Association

1. What are the competent government authorities on the mining sector?
The Ministry of Mines, Industry and Small and Medium Enterprises, the National Department of Mines, and the Departments of Mines in each of the country's 14 administrative districts

2. What are the main laws that govern mining policy in Senegal?
The legal framework governing exploration and mining in Senegal is set out in the Mining Code, Environmental Code, General Commercial law and the Forest Code, all of which have been updated in the last 15 years. They are as follows:

- Statute n°2003-36 dated November 24, 2003 enacted the Mining Code
- Decree n°2004 - 647 dated May 17, 2004 implemented the Mining Code
- Regulation n° 18/2003/CM/ WAEMU dated December 22, 2003 enacted the WAEMU Mining Code
- Environmental Code No. 2001-01 of January 15, 2001.
- Uniform Act of OHADA relating to General Commercial law dated December 15, 2010.
- Statute n°98/03 dated January 8 1998, enacted the Forest Code, and its implementing decree is dated February 20, 1998

3. What restrictions are there on companies that would like to begin mining?
Pursuant to the Mining Code, no person shall undertake or conduct an activity regulated by the mining legislation in Senegal without prior authorization of the state.
These persons or entities must demonstrate a specific set of technical and financial capabilities before carrying out mining operations.

4. Are there different rules applicable to foreign investment?
There is no separate regime for foreign investors. Once authorization to establish or invest in the country is granted, the rules are the same for nationals and foreigners.

5. What authorizations and permits are required for my company?
The state may authorize a company to undertake mining operations by granting:
- An authorization for prospecting
- A permit for the exploration of mineral substances
- A permit for exploitation
- A mining concession or a small-scale mining permit in the case of a small mine, or artisanal mining license in the case of artisanal mining

A Convention should be signed between the mining title holder and the State, which determines the rights, obligations and commitments related to these titles.
The state has the right to at least a 10% interest in all mines operating in Senegal and may negotiate for more.

6. How much does it cost to acquire mining titles?
The grant, renewal, extension or conversion and the sale, transfer or farm-out of mining titles for research and exploitation are subject to payment of fixed duties, paid in one installment as provided below:
- Research permits: 500,000 XOF (West African CAF francs)
- Mining concessions: 7500000 XOF
- Other mineral mining rights: 1,500,000 XOF

The above amounts are reviewed every five years by decree.

7. Are there any duties or taxes to be paid to the state for mineral production?
Under the Mining Code, any exploitation of mineral resources is subject to payment of an annual mining royalty rate of three per cent of the pithead value. The terms of payment and collection of mining royalties are specified in the implementation decree (n°2004 – 647). There are no exemptions.

8. What guarantees does the government of Senegal offer to mining operations?
- Installations and infrastructure built or acquired during the course of mining operations may not be subject to any measures of expropriation, except in circumstances of "force majeure" or public necessity. In such a case, the state must pay a fair compensation.
- Holders of mining permits have free choice of suppliers, contractors and service providers and partners. However, protocols, contracts and agreements that aim to assign or partially or fully transfer the rights and obligations of the mining title are subject to prior approval of the Ministry.
- The tax and customs regime will not change for as long as a mining title remains valid. As such, throughout the period of validity of a mining title, changes to the base rules, perception and pricing of taxes and fees are not binding to the holder of the mining title except at the request of the title holder, and provided the title holder adopts the new rules in their entirety.
- Subject to exchange control regulations and the Mining Code, the holder of a mining title may freely:
- Import, without financial regulation, equipment which it already owns
- Import goods and services required for its activities
- Export the minerals extracted, concentrates and other derivatives after completing all legal formalities
- Transfer the dividends and the capital invested and the proceeds of liquidation of their assets abroad
- Transfer funds abroad in repayment of debts outside of principal and interest

Travel, Index and Credits

IMAGE:

Welcome to Cape Town

There is a rush of activity in the morning as the local Capetonians make their way to work and play. Whether you are making your way through the beautiful steep streets of Tamboerskloof, lined with quaint restaurants and boutiques or down in the CBD where the minibus taxi's are hooting and weaving their way through the morning traffic, Cape Town's energy is unique.

IMAGE: SHUTTERSTOCK

Cape Town in February is all about the outdoors and whilst there, embrace the laid-back lifestyle whenever possible. While going up the cable car at Table Mountain for its magnificent views is at the top of every tourist's to-do list, the queue is not for the faint-hearted. For a 360° view of the city without the wait, make your way to Signal Hill with a picnic basket and enjoy the sight of Lion's Head, Table Mountain, the harbour and Green Point stadium. On a clear and windless day, you may even wonder why a swim from Robben Island to the mainland is impossible.

Camps Bay is the Venice Beach of the Mother City, where yuppies and local celebrities gather to end off the day to see and be seen at any one of the trendy hangouts that line Victoria Street.

If you find yourself in the fortunate position of having a day to spend at your leisure, Clifton is a great place to get your beach on. There are four main beaches at Clifton and each one has beach chairs and umbrellas for rental and you can be sure to find the local entrepreneurs ready to quench your thirst with the signature call, "A lolly to make you jolly under your brolly!"

For the foodie, Cape Town's culinary scene is a treat. Azure at the exclusive 12 Apostles Hotel offers views to match the up-market cuisine, while The Test Kitchen in the "up-and-coming" Woodstock area in the CBD has been voted South Africa's restaurant of the year with it's experimental style fine dining.

For shopping, the V&A Waterfront international shoppers paradise with all the brand names you would expect to see in New York. For a more local shopping experience, make your way to Green Market Square, just off the famous Long Street, where locals sell everything from handmade crafts to cell phone chargers. The Houtbay Market on a Saturday is a good excuse to pass by the quaint suburb sandwiched between ocean and natural forest, leading up to Devil's Peak where more breath-taking views and walking paths await.

A trip to the Cape will not be complete without a trip to the Boland wine region. For a more relaxed wine tasting experience, head to Beyerskloof and try the truly South African pinotage and for a bit more glamour, make a reservation at Tokara, the only vineyard with views of both the winelands and the Atlantic Ocean. Franschoek is a 40-minute drive from Stellenbosch and well worth a visit for its historical charm, famous restaurants and excellent wines.

Whatever your preference, Cape Town never fails to amaze even the return traveller. •

CLIMATE

	AVERAGE HIGH °C	AVERAGE LOW °C	SUNSHINE HOURS	RAINY DAYS	PRECIPITATION MM
JAN	26.1	15.7	337.9	5.5	15
FEB	26.5	15.6	297.4	4.6	17
MAR	25.4	14.2	292.9	4.8	20
APR	23.0	11.9	233.5	8.3	41
MAY	20.3	9.4	205.3	11.4	69
JUN	18.1	7.8	175.4	13.3	93
JUL	17.5	7.0	193.1	11.8	82
AGO	17.8	7.5	212.1	13.7	77
SEP	19.2	8.7	224.7	10.4	40
OCT	21.3	10.6	277.7	8.7	30
NOV	23.5	13.2	309.8	4.9	14
DEC	24.9	14.9	334.2	6.3	17

EXCHANGE RATES

Currency: South African Rand (ZAR)

1 ZAR = 0.09 USD
1 ZAR = 0.07 EUR
1 ZAR = 0.06 GBP
1 ZAR = 0.10 CAD
1 ZAR = 0.10 AUD

DIALING CODES AND USEFUL NUMBERS

South Africa Country Code: +27
Emergency: 112
Police: 10111
Ambulance: 10177

Tour d'Afrique is the Official Housing and Tour provider of Mining Indaba 2014

Planning a trip in South Africa can be daunting but to make it easier for you Mining Indaba™ has appointed Tour d'Afrique, proudly based in South Africa, to book your hotels, transport and tours. They will guide you as to which sights and activities should not be missed on your visit to this beautiful country. Along with your Indaba accommodation, tours can be arranged for you, your family or corporate groups – before, during and after the Mining Indaba.

"As a recognized leader in the local and regional tourism market, we have developed a reputation for superior service levels and competitive pricing with a wide variety of tour options to appeal to individuals, small or large groups and incentives. Our multilingual staff component has provided quality tourism services to International travelers for 16 years. Our well-traveled and experienced staff holds a wealth of knowledge of the local tourism product. Their combined knowledge ensures that we are able to perfectly marry a varied product offering to the individual needs of our clients. We specialise in creating operator specific programs which allow tailoring to clients specific needs. We are official tour operators for the FIFA World Cup 2010." •

HOTEL GUIDE

Mount Nelson
Address: 76 Orange Street,
Cape Town 8001
Tel: +27 (0) 21 483 1000
No. of rooms: 201

Taj Cape Town
Address: Wale Street
Cape Town 8001
Tel: +27 (0) 21 819 2000
No. of rooms: 177

Protea Hotel North Wharf
Address: 1 Lower Bree Street
Cape Town
Tel: +27 (0) 21 443 4600
No. of rooms: 67

Radisson Blu Waterfront
Address: Beach Road, Granger Bay
PO Box 50041
Waterfront 8002
Tel: +27 (0) 21 441 3000
No. of rooms: 177

The Townhouse Hotel & Conference Center
Address: 60 Corporation Street
Cape Town 8001
Tel: +27 (0) 21 465 7050
No. of rooms: 106

Queen Victoria Hotel
Address: Portswood Close,
Portswood Ridge, V&A Waterfront
Cape Town, 8001
Tel: +27 (0) 21 427 5900
No. of rooms: 35

Cape Grace Hotel
Address: West Quay Road,
Victoria & Alfred Waterfront,
Cape Town 8001
Tel: +27 (0) 21 410 7100
No. of rooms: 120

Circa on the Square Hotel
Address: 15 Anton Anreith Arcade
Foreshore
Cape Town
Tel: +27 (0) 21 431 8820
No. of rooms: 47

The Table Bay Hotel
Address: Table Bay Breakwater
Blvd Quay 6
Cape Town Central 8001
Tel: +27 (0) 21 406 5000
No. of rooms: 329

The Westin Cape Town
Address: Convention Square
Lower Long Street 8001
Tel: +27 (0) 21 4129 999
No. of rooms: 483

Cape Heritage Hotel
Address: 90 Bree Street
Cape Town 8000
Tel: +27 (0) 21 424 4646
No. of rooms: 17

Glen Boutique Hotel
Address: 3 The Glen, Sea Point
Cape Town Central 8005
Tel: +27 (0) 21 439 0086
No. of rooms: 24

One&Only Cape Town
Address: Dock Road, Victoria & Alfred
Waterfront
Cape Town 8001
Tel: +27 (0) 21 431 5888
No. of rooms: 91

Blackheath Lodge
Address: 6 Blackheath Road
Sea Point
Cape Town
Tel: +27 (0) 21 439 2541
No. of rooms: 10

African Pride 15 On Orange Hotel
Address: Orange St
Cape Town 8000
Tel: +27 (0) 21 469 8000
No. of rooms: 135

A Luxury Hotel Springs Up In Ghana's Oil Boomtown Takoradi

The discovery of oil off the shore of Ghana's Western Region in 2007 has forever changed the region's capital city Takoradi. When crude oil production finally began in the waters off of Takoradi in 2011, the dusty port-town cemented its status as a growing destination for business—not just for the oil and gas sector, but also for the nearby mining town of Tarkwa, which hosts Gold Fields' massive Tarkwa mine.

In recent years, travelers drawn to Takoradi by a booming industry have found a city still in the stages of redevelopment. While infrastructure and amenities were initially limited, with time the city's offerings have improved. Upgrading of the port's facilities is underway and plans to improve road and electricity networks are moving ahead.

To answer the demand for accommodation from the growing number of travelers attracted to the growing city, the newly opened Best Western Plus Atlantic Hotel will be Takoradi's first internationally-branded hotel.

"Takoradi is a growing market. They have discovered oil there, but there was not a single branded hotel in the city. A lot of people fly into Takoradi in the morning from Accra and come back in the evening because they cannot find decent accommodation," said Bassem Toura, general manager of the Best Western Plus Atlantic Hotel. "We are going to bring something completely different to Takoradi as the city's premium hotel."

With an expected 5-star rating, the Best Western Plus Atlantic Hotel, Takoradi boasts 200 rooms, three swimming pools and two tennis courts, as well as a nightclub, casino, pub, hair salon and spa. With the Takoradi Golf Club just opposite the property and the beach just beyond the golf course, the hotel is positioned to meet the needs of a wide range of travelers. Adding three restaurants and three bars to these facilities, the Best Western Plus Atlantic Hotel houses the most restaurants and bars under one roof in Ghana.

After a partial start at the end of 2013, wherein the hotel hosted large-scale functions, 2014 will see the continued roll out of the hotel's impressive array of amenities and services. This grand opening comes after three years of construction which took place on an 11-acre package of land that hosted the former Atlantic Hotel. The Best Western's partial namesake, the former Atlantic Hotel, was a small 70-bedroom property that has been stripped and redeveloped to take the shape of its new mammoth footprint.

"We decided to take advantage of the land, increasing capacity and adding more amenities to the hotel," said Bassem.

Of its now 200 rooms, the Best Western Plus Atlantic Hotel offers eight different types of accommodation—from three seventh-floor penthouses, each with a private balcony overlooking the Atlantic Ocean, to two presidential suites, six suites, deluxe rooms and standard rooms. To cater to the growing industries of Takoradi, the hotel also has a wing specially designed for business travelers, offering rooms equipped with a PC, its own living area and bedroom.

Beyond oil and gas and mining travelers, the Best Western Plus Atlantic Hotel also aims to cater to tourists lured to the area by its beach and wildlife attractions.

"Our clientele is mostly going to be business travellers, but we are going to try to target the tourism industry. In Takoradi, because of the beach, the golf course and the nearby Kakum National Park and historic Cape Coast, we have a thriving market of tourists to accommodate," said Bassem.

The hotel is set up to be family-friendly, offering chalets with two bedrooms, a living area and kitchenette that can easily accommodate a family for a weekend. A children's playground is also planned for construction. As plans to expand further go into effect, the hotel aims to hire a staff of 250 people.

Bringing benefits to the local community, the hotel is implementing training programs and initiatives to hire the majority of its workers from Takoradi.

The same principle applies to suppliers. While Takoradi is still in the upswing of its redevelopment, some procurement is routed through Accra in order for the hotel to meet standards. However, as the city and its local supply options improve, the hotel is looking forward to bringing 100% of its sourcing to within its community.

"We prefer to buy from Takoradi as it promotes the town. Some of the big companies in Accra are represented here, but we will also give the local market a chance," said Bassem.

Towards sustainability efforts, the hotel is also developing its own vegetable garden for its many restaurants, which will be watered with collected rain water.

As the city of Takordi further develops its offerings as an industrial and residential hub, the newly opened hotel can play a pivotal role as a responsible employer. The city's rapid redevelopment has cooled slightly due to a quieter year for both oil and gas and mining. However, the pace is set to pick up again as markets improve and oil and gas companies increasingly relocate their offices from Accra to Takoradi. Undeterred, the Best Western Plus Atlantic Hotel is gearing up for a busy 2014. •

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"Mines to Market: Export Infrastructure for East Africa's Landlocked Nations" written by Amelia Salutz, Barnaby Fletcher and Ramzy Bamieh

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