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A Proposed Change to Sudanese Government Mining Investment Policies Intended to Attract Foreign Mining Investment and Development

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**A PROPOSED CHANGE TO SUDANESE GOVERNMENT MINING
INVESTMENT POLICES INTENDED TO
ATTRACT FOREIGN MINING INVESTMENT AND DEVELOPMENT**

By

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A Research Paper

Submitted in Partial Fulfillment of the Requirements for

The Master of Science Degree

Department of Mining and Mineral Resource Engineering

In the Graduate School of

Southern Illinois University at Carbondale

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RESEARCH PAPER APPROVAL

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DEDICATION

I would like to dedicate this work to my family, wife, and friends, and to my expected son, Gabir
(God Willing).

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	i
DEDICATION.....	ii
LIST OF TABLES.....	v
LIST OF FIGURES.....	vi
BACKGROUND INFORMATION ABOUT SUDAN.....	1
Introduction.....	2
ESTABLISHED A LEGAL MINING FRAMEWORK.....	5
Overview of Sudan’s Mining Legal Framework.....	5
The Sudanese Constitution.....	5
Sudan’s Mining Policy.....	5
Mining Enhancement Law.....	7
Benefits and Contributions of Mining to the GNP.....	7
Mining Investment.....	8
Mining Exports.....	11
Current Constraints on Mining Investment.....	12
Implications of the Current Restrictions.....	13
EMPLOYMENT.....	15
OPPOSITION TO MINING.....	17
THE MISSING ROLE OF THE FEDERAL GOVERNMENT.....	18
CHALLENGES.....	19
PROPOSED MINING POLICIES.....	20
PROCEDURES FOR CREATING THE PROPOSED POLICY.....	23
POLICY DESIGN PROCEDURE.....	23
Deductions on Exploration Expenses.....	27
Value Added Tax (VAT).....	28
Value Added Tax (Vat) Return.....	28
Fiscal Stability.....	29
Depreciation Costs.....	29
Loss Carry Forward.....	29
Environmental Deductions.....	30
Royalties.....	30

Infrastructure Deductions.....	31
Access to Markets	31
Creation of a Gold Exchange.....	31
One Stop Shop	32
Improving Gras.....	32
SUMMARY.....	34
Stopping Foreign Aid.....	34
Infrastructure Development	35
Better Healthcare.....	35
Increased Employment	37
Skills and Technology Development	38
Improved Educational Facilities	38
CONCLUSION.....	39
BIBLIOGRAPHIES	40
VITA.....	41

LIST OF TABLES

	Page
Table 1. Effective Mining Tax Rates of Selected Countries	24
Table 2. Mining Deductions and Incentives Offered by Selected Countries	24
Table 3. Proposed Mining Policy	25

LIST OF FIGURES

	Page
Figure 1: Location of Sudan	2
Figure 2: Number of Active Exploration Sites by Region	3
Figure 3: Mining Contributions to Sudan's GNP	9
Figure 4: Planned Worldwide Exploration Budget by Region for 2010	10
Figure 5: Mining Investment in Sudan	11
Figure 6: Trends in Reported Exploration Budgets for Nonfuel Minerals	12
Figure 7: Sudan's Mining Exports over the Past Five Years	12
Figure 8: Mining Employment in Sudan from 2008 through 2010	16
Figure 9: Locations of Opposition to Mining	17
Figure 10: Rates of Return of Copper Mines in Selected Countries	22
Figure 11: Effective Tax Rates of Selected Countries vs. the Current Sudanese Tax Rate	27
Figure 12: Comparison of the Proposed Effective Tax Rate with Competing Countries	28
Figure 13: Comparison of Life Expectancy for Citizens of Sudan with other Countries	36
Figure 14: Comparison of Per Capita Income in Sudan with other African Countries	37

BACKGROUND INFORMATION ABOUT SUDAN

The Republic of Sudan is located in the northeastern part of the African continent geographically but it is considered part of the Middle East culturally and politically. Sudan is bordered to the south by the newly formed nation of South Sudan, which was part of the Republic of Sudan till January of 2011. It is bordered by the Red Sea, Eritrea, and Ethiopia to the east, Chad, Central African Republic, and Libya to the west, and Egypt to the north. Sudan lies at 15°00 N latitude and 30°00 E longitudes. The people of Sudan are indigenous Saharan Africans, the descendants of migrants from the Arabian Peninsula. A large majority of the population are Muslims, with less than 5% professing other beliefs and religions. According to the Sudanese Census Bureau, the population has been estimated at 37 million as of 2010. Khartoum is the largest city and the political and cultural capital, followed by the cities of Port Sudan, Madani, Gedarif and Kosti. Sudan is a member of the United Nations, the African Union, and the Arab League, and is an observing member of the World Trade Organization. Sudan is a federal democratic republic currently ruled by the National Congress Party (NCP). Sudan's total land area amounts to some 1,861,484 square kilometers¹. According to the Ministry of Mining and Mineral Resources, about two thirds of this land has potential for the commercial development of minerals. Figure 1 shows the location of Sudan within the African Continent.

¹ United States Central Intelligence Agency Report on Sudan

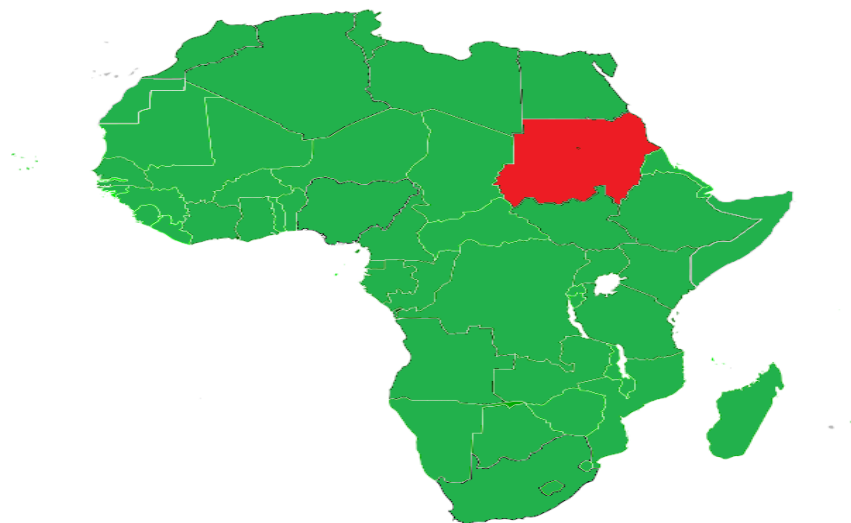


Figure 1: Location of Sudan.

Introduction

This research paper focuses on analyzing Sudanese mining policy and its effectiveness in attracting foreign mining investments. The objective will be to demonstrate that a predictable, clear, fair and transparent mining policy is essential to Sudan's ability to attract foreign mining investment in the future. Since 1990, a large number of countries have amended their mining laws or enacted new ones to better attract foreign mining investments. Sudan is one of the few exceptions². The development of the Sudanese mining sector has been a recent achievement but growth has been very slow due to inadequate and outdated mining investment policies. Examples of active mining companies in the Sudan include the French mining company Cogema and Maadin from Saudi Arabia. During the last decade the Sudanese mining policy has struggled to shift into a competitive legal and fiscal framework by means of new regulations directed at encouraging mining investment.

² MMSD Final Report, Breaking New Ground: Mining, Minerals and Sustainable Development, International Institute for Environment and Development, pp. 177-178

Meanwhile, the spending on exploration has started to decrease internationally,³ and the importance of the American and European countries has declined as compared with Asia, Latin America, and Africa, the latter fast becoming one of the world's most attractive destinations for exploration and property development spending. As a result, Sudan's mining investments for both exploration and exploitation has increased slowly in the past five years. Figure 2 shows Africa's contribution of exploration sites as a percentage of the total number of sites worldwide. According to Sudan's Ministry of Mining and Mineral Resources, 300 million USD was invested between 1999 and 2010, and about U\$S 0.5 billion could be invested in the next five years provided that all the projects in the pipeline are put in place. Sudan's current mining policies must be amended immediately to prevent the diversion of these potential projects to other countries with fairer and more attractive mining polices. This should be a top priority for the government of Sudan, especially now that Sudan has lost nearly 75% of its oil revenues as result of its separation from South Sudan⁴. However, in certain Sudanese states, particularly Darfur, mining development is facing opposition by local rebels and international groups which could prove to be a setback. The rebels are demanding that a larger share of profits go directly to Darfur rather than to the federal government.

³ Crowson, P. 2003

⁴ United States Central Intelligence Agency Report on Sudan

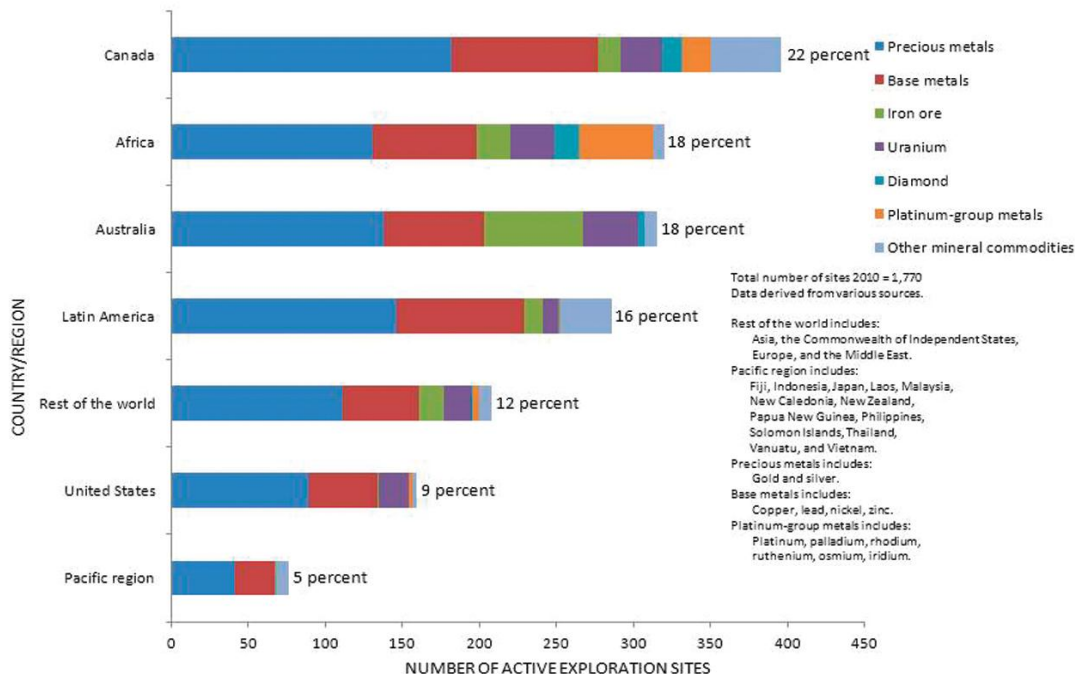


Figure 2: Number of Active Exploration Sites by Region. Source: U.S. Geological Survey.

The purpose of this paper is to determine whether the current Sudanese mining policy will be capable of attracting foreign investments, or if there is a need to amend it to ensure this goal. This paper will draw an overview of the mining legal framework by describing the relevant laws which have hindered the consistent growth of Sudan's mining sector. The paper will focus its analysis on the mining sector's potential contribution to the Sudanese economy if the proposed changes are made. The economic consequences of Sudan's current mining policy will be discussed. The main constraints and challenges threatening the future development of the Sudanese mining industry will be addressed in detail, along with the current mining policy's effect on attracting foreign investment. Finally, new amendments to the current policy will be proposed, followed by a discussion of the expected impact of the amendments.

ESTABLISHED A LEGAL MINING FRAMEWORK

Overview of Sudan's Mining Legal Framework

The Sudanese Constitution

Sudan is a federation composed of fifteen states. Under the Sudanese national constitution, the states have some control over their territory's natural resources. The states have the authority to negotiate for and keep royalty taxes from a given project. The government of Sudan has majority control over resources existing within the country; thus, Sudanese states are entitled to regulate the procedures for granting mining concessions, though the final decision belongs to the federal government. Different states have different laws, and the lack of a uniform policy has contributed to Sudan's failure to attract foreign mining investment.

Sudan's Mining Policy

The first set of Sudanese mining laws was enacted in 1972 through the Mines and Quarries Act which was directed mainly at quarries and rock crushing operations. No significant additional laws or regulations for mining legislation were enacted until 1990 when the government introduced the Investment Encouragement Act of 1999. Listed below are its most important features:

- Mining leases are issued according to the Mines and Quarries Act (1972) and are classified as:
 - A general prospecting license for one year covering part or all of a state, as requested by investors.
 - An exclusive prospecting license for one year with possible extensions.

- A mining lease for 21 years with possible extensions for 2 square kilometers of land.
- The period of exploration must continue for at least 3 years and may not exceed 5 years.
- The agreement allows exploitation of an economically feasible mineral resource at any stage during the exploration period.
- Investors enjoy the privileges set forth in the Investment Encouragement Act (1999) both during the exploration period and the beginning of production.
- Mining leases grant exploitation of commercial resources for a period of 21 years.
- The Government of Sudan does not insist on having the major share of profits.
- Mining projects are exempt from profit taxes for ten years from the beginning of commercial production. The projects are also exempt from customs and other taxes during exploration⁵.

Sudanese mining policy has adopted a better legal framework since 2005 by opening up the country's economy to potential investors through the Mining Enhancement Law, though the law did not amend current mining policy. In 2005 the rebels and the government of North Sudan signed a comprehensive peace agreement giving South Sudan the option to separate from the North in 5 years, and that is exactly what happened after a referendum. The government of Sudan realized it was going to lose a large share of the available oil in five years,

⁵ Geological Research Authority of Sudan

and mining was considered the solution. The Mining Enhancement Investment Law is the cornerstone of current mining policy in Sudan.

Mining Enhancement Law

The Mining Enhancement Law was signed on January 15th, 2005, establishing the Ministry of Mining and Mineral Resources. The Ministry is composed of appointed officials as well as representatives of the 15 northern states. Its main purpose is to develop attractive mining policies that would lead to tangible mining investments from within and outside the country, and to provide information about of Sudan's geology and mineral resources. According to the Ministry of Mining and Mineral Resources, 1,150,000 of Sudan's total area of 1,861,484 square kilometers has potential for commercial mining development, of which less than 1% has been exploited. According to the Sudanese Geological Research Authority (GRAS), this land consists of 49% basement complex rocks, 48% sedimentary rocks, and 3% recent deposits. The rocks are very diverse in age, ranging from the Proterozoic Era to the Quaternary. Minerals of potential economic value include gold, manganese, copper, titanium, talc, zinc, salts, black sands, gypsum, bauxite, and chromite, among others. Geological studies have indicated the variability of the mineral resources of Sudan and, though the deposits that have been discovered so far are not world class, their geology and structure correlates with that of deposits in adjacent countries renowned for great mineral wealth.

Benefits and Contributions of Mining to the GNP

According to the Mining Journal Countries and Commodities Report 2006 (Sudan), the mining sector contributes less than 1% of the Sudanese GNP. However, according to Sudan's Ministry of Finance, the sector is currently contributing about 5% of the GNP.

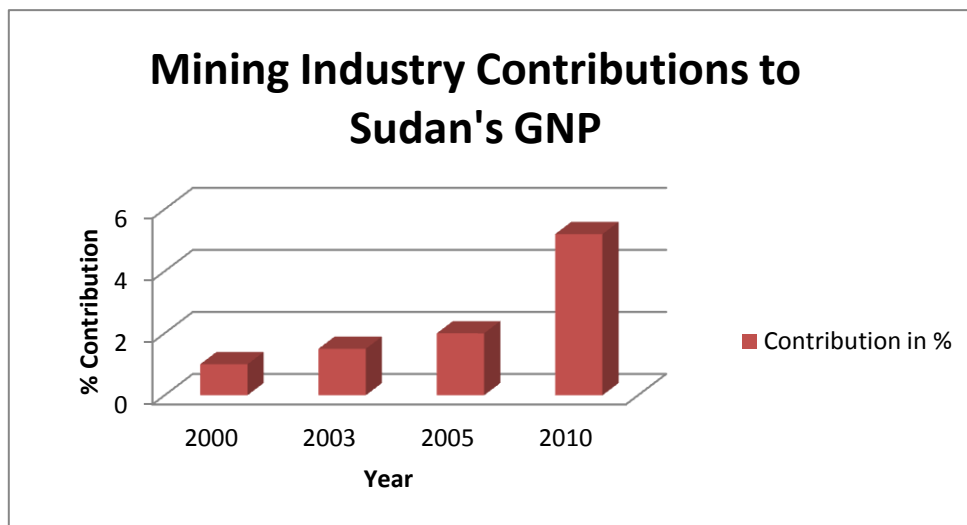


Figure 3: Mining Contributions to Sudan's GNP. Source: Sudan's Ministry of Finance

Mining Investment

Exploration spending changed in the decade between 1990 and 2000. While Australia's exploration expenditures remained the same and those in the larger mining countries such as the USA and Canada decreased, Africa experienced increases in exploration spending. As Figure 4 illustrates, Africa's estimated mining investment represents nearly 15% of the world's mining investment in exploration. Until recently, Sudan was the largest country in Africa with diverse mineral wealth. Planned worldwide exploration budget for non-fuel minerals commodities was 10.7 billion USD by 2100 companies⁶.

Due to Sudan's mineral wealth along with the increase in African exploration and mining investment, it was expected that Sudan would attract significant mining investment, but that has not been the case. In 2006 the Sudanese mining industry began to receive investments from by investors mainly from the Arabian Gulf states. Mining investment reached a new high in 2010 and is expected to double in the next two years; such growth, however, is dependent

⁶ Annual Review 2010: mining, exploration and coal overviews p.59.

on amending Sudan's current mining policies. The Sudanese Mining Industry needs a better policy to become a major African mineral-producing country. Figure 4 shows the planned worldwide exploration budget for 2010⁷, while Figure 5 illustrates the increases in investment during the last five years.

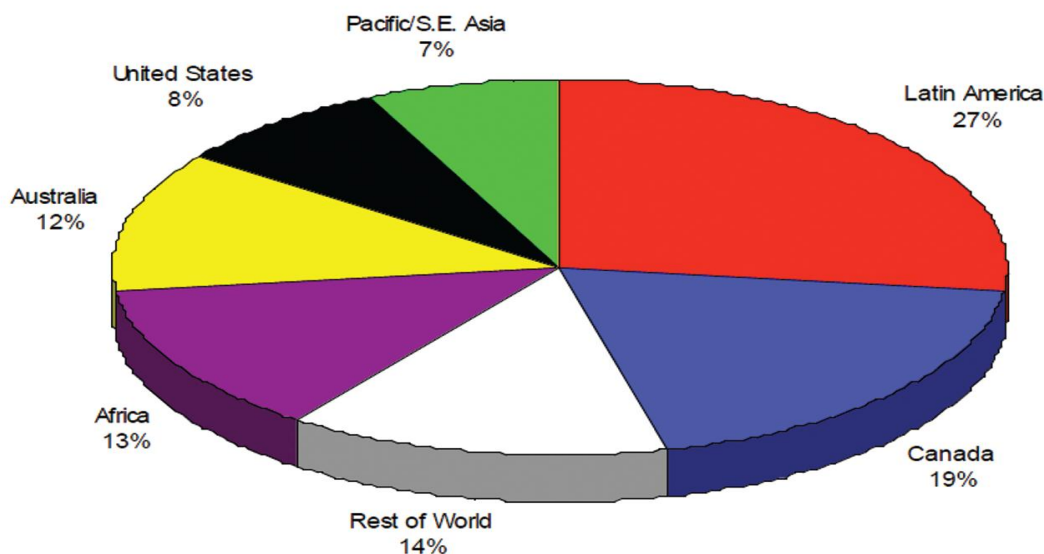


Figure 4: Planned Worldwide Exploration Budget by Region for 2010. Source: Annual Review 2010

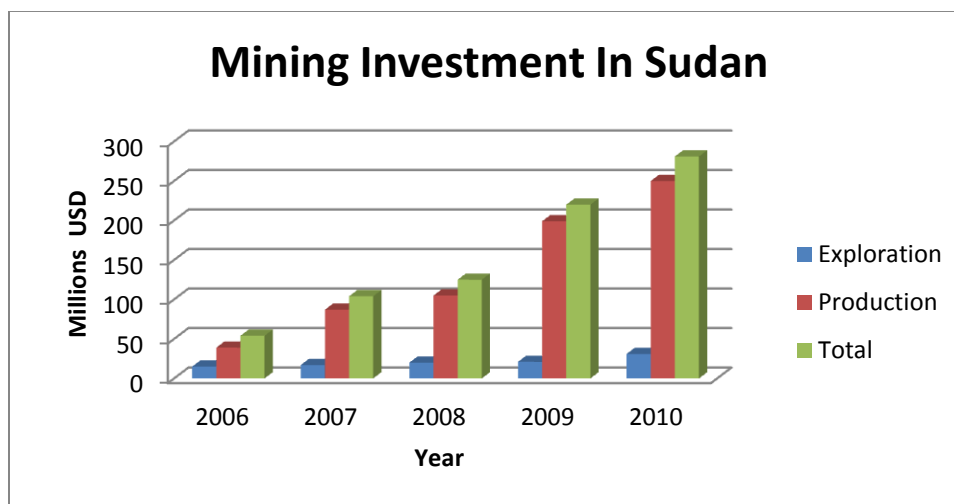


Figure 5: Mining Investment in Sudan. Source: Ministry of Mining and Mineral Resources

⁷ Annual Review 2010: mining, exploration and coal overviews p. 58.

Since 2005 Sudan has seen significant expenditures on exploration and mining investments with funding resources mainly from the Arabian Gulf region as well as the Sudanese government. According to the Ministry of Mining and Mineral Resources, the total amount spent in 2010 for exploration was 10.4 million USD with mining investments since 2005 totaling about 200 million dollars. Despite the increase in global exploration spending in Africa and Sudan's unique geological conditions and mineral wealth, mining investment has been well below expectations due mainly to the country's outdated and ineffective mining policies which have failed to attract major mining companies from abroad. It has been proven numerous times that, no matter how volatile the political and social climate of a given country may be, companies will invest in countries possessing desirable minerals as long as there are attractive mining policies in place that help reduce and share the risks. Figure 6 shows the trends in reported exploration budgets for nonfuel minerals worldwide from 1999 to 2010.

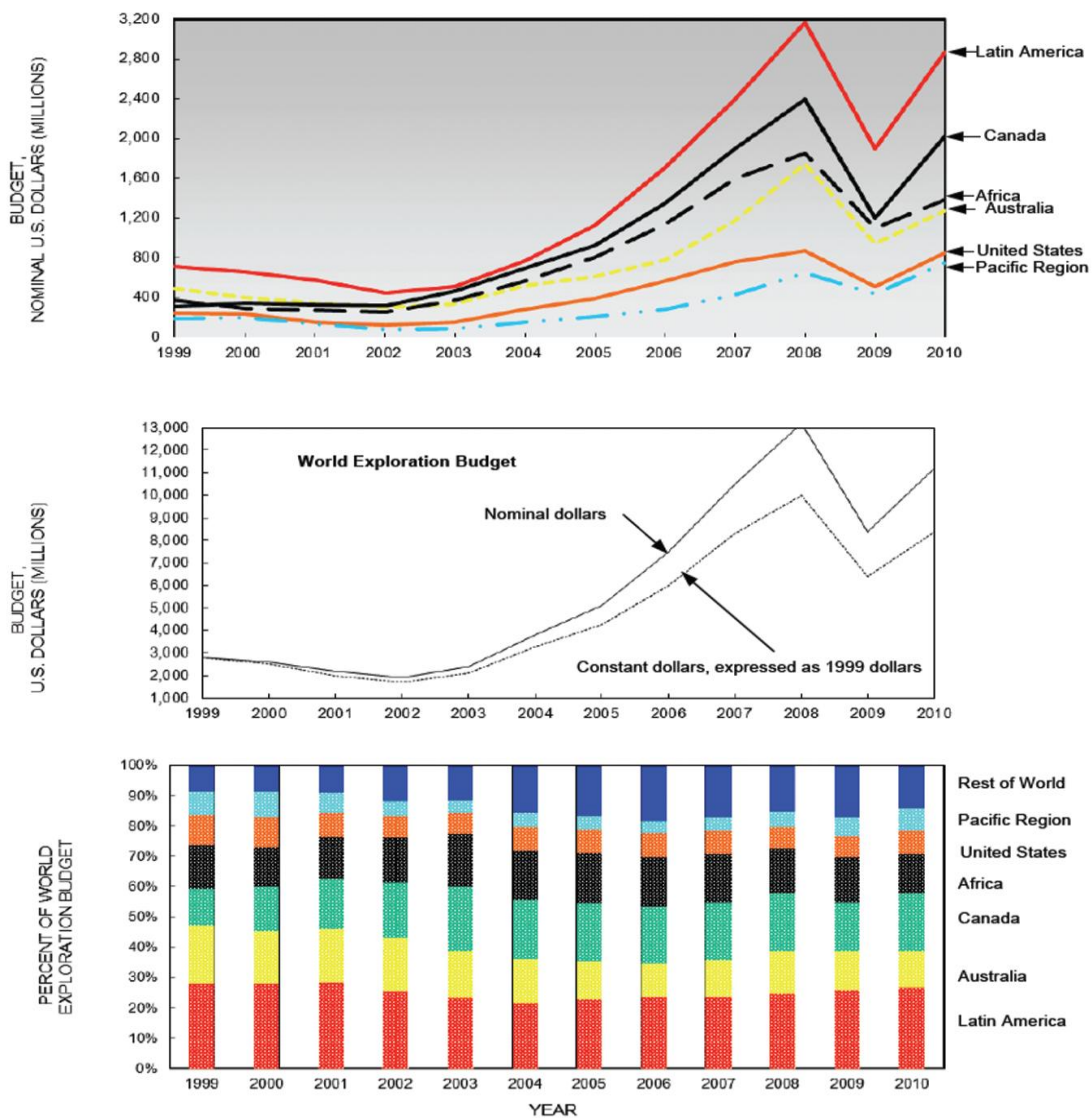


Figure 6: Trends in Reported Exploration Budgets for Nonfuel Minerals in Selected Regions, 1999 through 2010. Source: Annual Review 2010

Mining Exports

Since the Sudanese parliament passed the Mining Enhancement Law, mining exports have been slowly improving. Figure 7 illustrates Sudan’s mining exports over the last five years. Mining exports increased in 2009 and 2010 to 140 and 200 million USD respectively. In order to improve this rate of increase, productive and well-known mining companies must be attracted, and the best way to achieve that will be through better mining policies. From an

investor's point of view, the main issue facing mining exports is that the federal government does not allow mining companies to export all of their products to international markets. For example, the French mining company Cogema (part of the Areva Company) is allowed to export only 65% of its gold, silver, and copper from its Hessassi Mine. The remaining 35% is usually sold locally by the government of Sudan or in international markets through the Sudanese Central Bank.

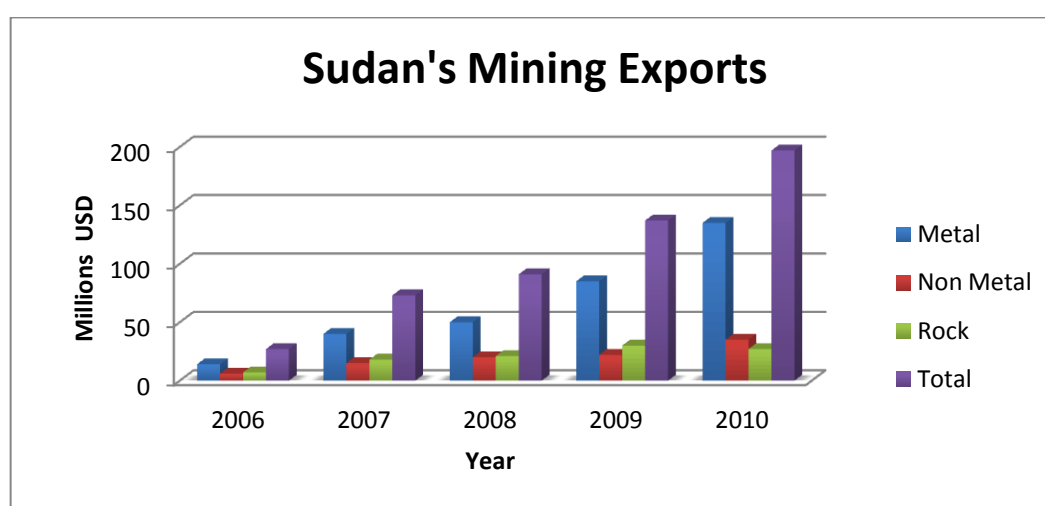


Figure7: Sudan's Mining Exports over the Past Five Years. Source: Ministry of Mining and Mineral Resources

Current Constraints on Mining Investment

Due to Sudan's federal structure, each state has the right to create its own environmental laws and investment regulations. In Sudan, however, federal law supersedes state law, and all states must abide by federal standards. Currently, the main hindrance to mining investment in Sudan consists of the states' unattractive and irregular mining policies. Criteria for taxes and profit sharing are not uniform for all companies, but depend on the particular deal struck with the Sudanese government. Worse, these policies are not at all friendly to foreign mining companies. For example, the Sudanese government is in a joint

partnership with the French mining company Comega in multiple gold mines. The Sudanese government imposes taxes in the form of royalties, a capital tax, an income tax, and profit sharing requirements amounting to 52%. Comega is currently the largest mining company in Sudan. Since 1995 no company of Comega's stature and capital ability has come to invest in the country in spite of soaring gold prices internationally.

Another example of an obstacle faced by a foreign mining company is the tedious and time-consuming process of obtaining a permit. . This process begins with the registration of the mining company with the Ministry of International Trade, after which the permit is initiated by the Ministry of Mining and Mineral Resources. The permit is then sent to the Ministry of Internal Affairs for security clearance, then to the Ministry of Foreign Affairs for notarization, and finally back to the Ministry of Mining and Mineral Resources for final approval. The process is not only time-consuming and financially exhausting; it provides fertile ground for corruption, a major roadblock to attracting foreign investment in general, and mining investments specifically.

Implications of the Current Restrictions

From an economic point of view, these restrictions will translate into less export income and tax revenue for the federal government and the individual states. At a state level, resistance to mining will result in less business activity, employment, diminished incomes, and less money for the building or maintenance of schools, roads...stations, or the building of clean water facilities and transportation networks to reach remote areas.

The individual states will suffer the most because they will lose millions of dollars that could be collected as royalties. Taxes from royalties could be a significant source to fund the

various spending needs of the states without having to rely on aid from the federal government. In addition, it has been proven that mining helps the development of indirectly related industries.

Most importantly, from an investor's point of view, the lack of uniform and adequate mining policies among the Sudanese states will be viewed as an unfavorable and unstable mining investing environment in a country that has had its share of volatility. This perception by the world- wide mining community will result in not only a decrease in mining investment in exploration and property development, but also in the Sudanese economy as a whole. Current governmental regulations in the form of current mining policies do not take into account the fact that delays cost money.

EMPLOYMENT

Most of the world experienced a recession in late 2007 that negatively affected employment in the mining industry worldwide. In Sudan, however, mining employment has been on the rise, due mainly to both regulated and unregulated gold mining as well as illegal mining activities by individuals. Another reason for the rise in mining employment is the lack of other relevant economic activity in the remote areas containing most of the minerals, particularly gold, silver and aggregates. According to the Ministry of Mining and Mineral Resources, mining is responsible for 100,000 jobs of which 95% are related to illegal and unregulated gold mining activities while the remaining 5% are offered by regulated and registered mining companies such as Ariab, Cogema, and Maadin. It is also estimated that an additional 150,000 jobs have been indirectly created as a result of increasing mining activity. While Sudan does not have an adequate monitoring system to confirm employment statistics, the impact of increased mining activities is felt by the agricultural sector as they struggle to find employees for the planting and harvesting seasons. Mining has lowered the unemployment rate and increased personal income which translates into a better standard of living and a growing economy. Figure 8 illustrates the employment trends for 2008 – 2010. These employment figures would be even better if current mining policies were able to attract substantial foreign investment.

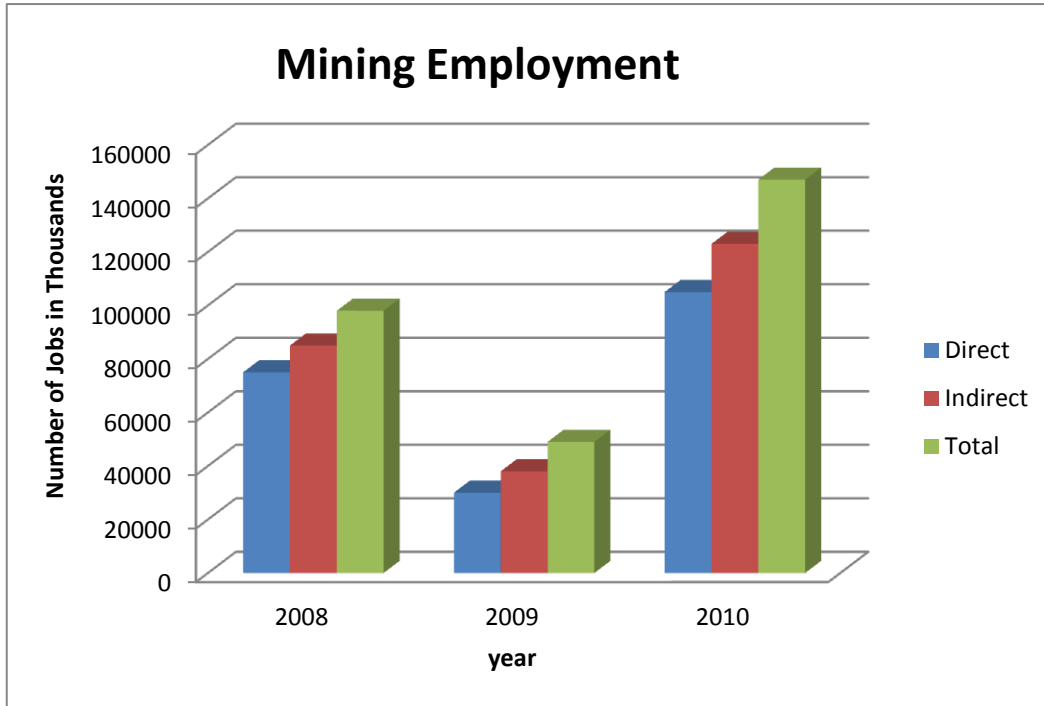


Figure 8: Mining Employment in Sudan from 2008 through 2010. Source: Ministry of Mining and Mineral Resources

OPPOSITION TO MINING

Some parts of Sudan have a history of instability. Growing opposition to mining investment has been taking place in some states such as Darfur, Southern Kordofan and Blue Nile State. Figure 9 shows the location of these states. Political oppositions and nongovernmental organizations have been playing a key role in promoting anti-mining social unrest based on environmental grounds. As a result of these activities, many investors have decided to pass on investing in the Sudanese mining industry. Such problems can be solved by having an attractive and just mining policy that would help form a partnership between the federal government, state governments, local communities, and investors.



Figure 9: Locations of Opposition to Mining in Sudan

THE MISSING ROLE OF THE FEDERAL GOVERNMENT

There is a clear lack of commitment by the Sudanese federal government when it comes to dealing with the stated constraints and restrictions and their actual and potential effects on the Sudanese economy. According to the Ministry of Mining and Mineral Resources, Sudan hopes that mining investments can contribute close to 6 billion USD to Sudan's gross national product by 2020 but it is evident that this will not be the case. Mining could be as profitable as agriculture (which accounts for 80% of Sudan's gross domestic product), but only if current policies are scrapped or amended.⁸ The Sudanese government has lost 6 billion USD in annual oil revenues due to the separation of the country's southern region from the federation and the formation of the new republic of South Sudan. The federal government is hoping to replace the lost revenues by attracting mining investments. This ambitious goal is endangered by the lack of action by the federal government to create a uniform, transparent, and enticing new mining policy that would provide much-needed revenue for Sudan's treasury. The government has clearly failed to pressure the states to come together to create a better mining policy. Many states with their own policies have completely ignored the federal mining policy. Such actions are viewed by investors as revealing a lack of uniformity which constitutes an additional investment risk. While the current mining laws are intended to attract investment, some of the states' policies are deterring investors by implementing extreme revenue-sharing policies that are guided by a lack of understanding of mining as an economic activity for the good of all.

⁸ Central Intelligence Agency (CIA) online report, Sudan

CHALLENGES

The time to unify the mining policies of all the Sudanese states is now. The Ministry of Mining and Mineral Resources should be the organizing body, seeking agreement among state governments, mining investors, the federal government, and, most importantly, local communities. The new policies must recognize these communities as vital contributors to the mining sector by allowing them to participate in decision making through consultations and public hearings as is done in mining-friendly countries such as the US, Canada, Australia, and South Africa. This will give communities and their political leaders a stake in the decision making process and will ensure open and transparent communications regarding the advantages and disadvantages of a given mining project.

From a policy point of view, both of the state and federal governments should be responsible for providing all relevant information related to the benefits and drawbacks of the mining industry. Otherwise, misunderstandings can arise and be hijacked for political or social gain can ultimately lead to additional mining risks. At the moment, environmental organizations are waging a full-scale war on the mining industry across the globe. Responsible action is required from nongovernmental organizations, local communities, social leaders, journalists and, most importantly, politicians, since the environment should not be used as a political tool.

PROPOSED MINING POLICIES

The Sudanese federal government does not have the technology, expertise, human resources or financial capital to mine its mineral resources in an efficient and safe way. Sudan must fill this void by attracting foreign mining investors by amending current mining policies. The international mining community is very small, and Sudan must compete for the limited amount of mining investment money. Sudan must offer incentives such as a stable regime, respect and adequate security for mining investment agreements, an unhindered flow of hard currency to and from Sudan, and the ability to access international markets. Most importantly, Sudan must offer a lucrative tax environment that meets the demands and expectations of its people and its investors.

The following proposed amendments to Sudan's federal mining policy will have an overwhelmingly positive impact on the mining sector. The proposed policy would impose an effective tax rate of 45%, in line with the most attractive rates worldwide⁹. In addition, the Geological Research Authority of Sudan (GRAS) is to be revamped so as to provide geological services that are currently not available in Sudan, such as geochemical and metallurgical analysis.

It is vital that the government of Sudan understand that mining investors must take on much upfront capital in order to develop and construct a mining operation's infrastructure. Such projects are viewed by investors as high risk and capital intensive, especially in third world countries such as Sudan. The proposed policy will take this fact into account.

⁹ Comparative Mining Tax Position in South America, Brian Mackenzie, 1998

Restricting a company to one particular area for mining can impede the process of attracting investors. The royalties, road taxes, capital taxes, value added taxes, net asset taxes, property taxes, land use taxes, and payroll taxes currently being imposed on most mining companies are sure to drive away foreign investors. The imposition of withholding taxes can also deter foreign investors from investing in Sudan. International mining companies take into account their entire tax burden when making decisions concerning the economic feasibility of a project. In other words, mining investors compare projects, calculating how much profit will remain after taxes. The taxes under the current policy render the Sudanese mining environment unattractive. Foreign investors will move on to competing countries in Africa or Latin America with equal exploration potential but better tax rates and less risk. A fair tax system is a precondition for mineral exploration and mining property development.

Rate of return is another important factor for companies in deciding where to invest. Figure 10 shows the rates of return of copper mine investments in selected first and third world countries. According to the Ministry of Mining and Mineral Resources, the French mining company Cogema had a 19.8 % rate of return after taxes as of 2009 for its Hessassi gold mine in the eastern part of Sudan.

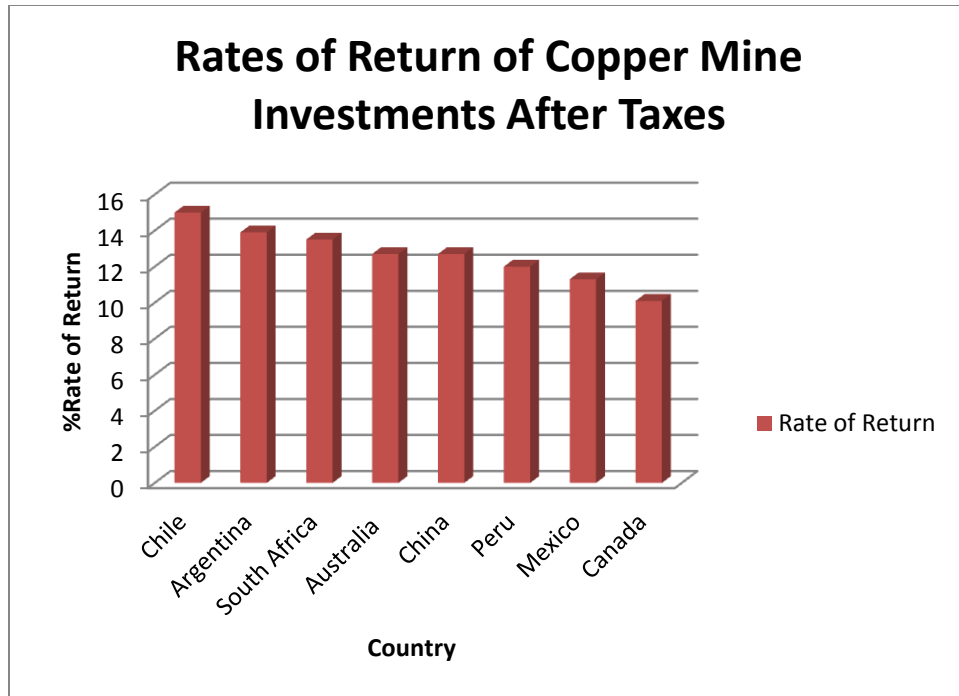


Figure 10: Rates of Return of Copper Mines in Selected Countries. Sources: Modified from Various Annual Review Reports 1999-2010

PROCEDURES FOR CREATING THE PROPOSED POLICY

In order to create a competitive and attractive mining investment policy, the current mining policies of developing countries similar to Sudan geologically, economically and socially were investigated, particularly South American countries that have amended their mining policies to attract foreign investment. South American countries are regarded as having the best models among developing countries for attracting foreign investment, and have become attractive destinations for mining investors. Ghana and Zambia also are considered to have effective and transparent mining policies, were also investigated.

POLICY DESIGN PROCEDURE

The first step in the design process was to collect mining policy data from a selection of countries in South America along with the African countries Ghana and Zambia. Through the use of the spreadsheet reproduced below (Table 1), the averages of all the various taxes and deductions were obtained. The taxes and deductions of the proposed policy consist of the averages of all of the investigated South American and African countries. Some of the incentives offered by the proposed policy are not currently offered by any country and were created specifically for Sudan. Tables 1 and 2 show the averages of the current mining taxes and incentives of selected countries.

Table 1: Effective Mining Tax Rates of Selected Countries

	Income tax	Profit Share Tax	Royalty	Capital Tax	Total
Brazil	18	11	10	0	39
Argentina	34	7	0	0	41
Chile	42	7	0	0	49
Columbia	35	9	2	0	46
Bolivia	33	15	0	0	48
Peru	36	10	2	0	48
Ecuador	24	19	8	0	51
Venezuela	28	19	6	0	53
Ghana	18	17	2	0	37
Zambia	22	11	7	0	40
Average	29	12.5	3.5	0	45

Table 2: Mining Deductions and Incentives Offered by Selected Countries

	Brazil	Argentina	Chile	Columbia	Venezuela	Ghana	Zambia	Bolivia	Ecuador	Peru	Average
Exploration Deductions		200		125	150	150	150		150	125	150
VTA Return	yes	yes	yes		yes		yes		yes		
Fiscal Stability		20		25						15	20
Depreciation Costs	yes	yes				yes	yes				
Loss carry forward	2	4			4		6				4
Environmental Deductions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Infrastructure Deduction	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Mining Leases	N/A	20	15	20	15	25	25	15	20	25	20

Based on the data studied of selected countries listed in table 1 and 2, table 3 was created to represent the proposed mining policy.

Table 3: Proposed Mining Policy

Incentive	Proposed Mining Policy	Current Mining Policy
Exploration Deductions	150% deduction of feasibility study and pre-production expenses. Deductions will occur in first 2 years at 75% per year after development is complete	No value added taxes during exploration
Capital Tax	0%	Varies depending on negotiations
Profit Share Tax	12.50%	Varies depending on negotiations
Income Tax	29%	0% for up first 10 years
Value Return	A Law shall be established to insure the return of fiscal credits from the VTA during exploration expenses, one full year after the expenditure took place	Does Not exist
Fiscal Stability	20 years (state and municipal taxes, import duties, and exchange regulation starting from the date on which the feasibility is filled	Does Not exist
Depreciation costs	Mine site construction costs are depreciated over 4 years, 40% first year, 25% second year, 20% third year and 15% for fourth year starting in the year the construction is ended. Capital costs are depreciated straight line over 4 years	Does Not exist
Loss carry forward	4 years	Does Not exist
Environmental Deductions	Deductible for income tax up to 1.5% of the operating costs of mineral extraction and up to 3% deductible for additional exploration and feasibility for a second investment	Does Not exist

Royalties	Maximum of 3.5% for the first investment and maximum of 2% additional investments	3% to 6%
Value Added Tax (VAT)	Maximum of 5%	No value added taxes for up to 5 years
Infrastructure Deductions	20% deductible for income tax beginning 3 years after construction is complete, 10% for the first year, 7.5% for second year, 2.5% for third year.	Does Not exist
Access to Market Minerals	Ability for Mining Companies to sell up to 75% of extracted minerals in international markets	Ability for Mining Companies to sell up to 65% of extracted minerals in international markets
Creation of a Gold Exchange Place	Ability to sell minerals at world market values within Sudan	Under Development
Creation of a one stop shop	Mining companies will be able register for business and obtain all the necessities to start mining in a one stop shop department within the Ministry of Mining & Mineral resources	Does Not exist
Improve GRAS	This will enable mining companies to have better access to required geological information on a timely basis and at a reduced cost	provides maps but no testing of any kind
Mining Leases	Minimum 20 years	Minimum 21 years

The main goal of the new policy will be to provide incentives to exploration and development so as to increase knowledge of Sudan's mineral resources and enhance the flow of foreign capital to its mining industry. The main differences between current policy and the new one is a 150% deduction on exploration expenses, fiscal stability, the elimination of value added tax on imports, depreciation costs, reduced royalties, deductions for environmental expenses, the return of fiscal credits during exploration, and a revamping of the Geological Research Authority of Sudan (GRAS).

Deductions on Exploration Expenses

Sudan's current effective tax rate is 52%. As a result, the current mining policy has failed to attract significant mining investment as compared to Ghana, Tanzania and Zambia, which all have similar mining potential but much lower tax rates. Figure 11 compares mining tax rates among selected developing countries. The mining investor will be able to deduct 150% of invested capital during the feasibility stage. Deductions include prospecting and research costs, pilot plant tests, and exploration costs. This mechanism will ensure additional investment because investors tend to commit to long-term discovery and development of mineral resources if they get a lucrative tax deal. The proposed mining policy will have an effective tax rate of 45% in line with the most attractive rates worldwide. Figure 12 compares the proposed effective tax rate with that of the competition.

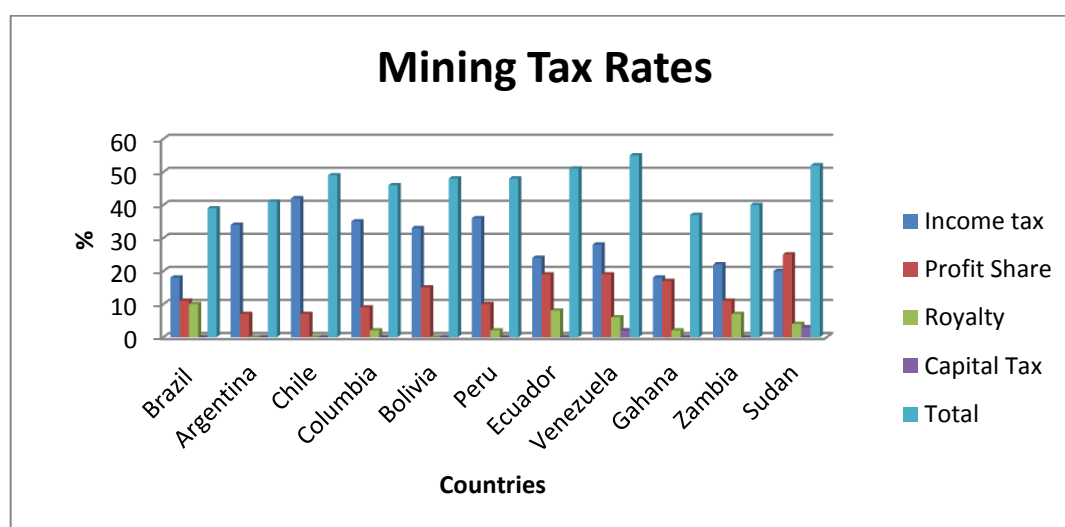


Figure 11: Effective Mining Tax Rates of Selected Countries vs. the Current Sudanese Tax Rate

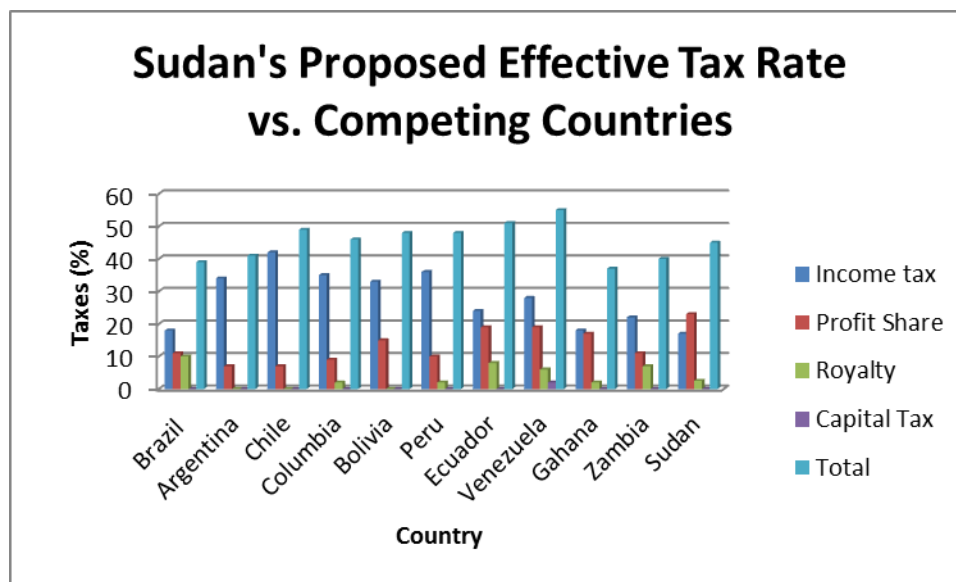


Figure 12: Comparison of the Proposed Effective Tax Rate with Rates of Competing Countries

Value Added Tax (VAT)

Currently, the government of Sudan assesses a value added tax of 15% on all goods entering the country. The proposed policy will assess a maximum of 5% on all mining-related goods including equipment, parts, and accessories. The 5% VAT will be deducted after one year as part of the value added tax return feature explained earlier.

Value Added Tax (Vat) Return

Feasibility planning and mineral exploration within Sudan will be expensive because the country lacks the necessary equipment such as the pilot plants and drill rigs required to perform exploration activities. Investors will need to import advanced equipment and infrastructure that will be taxed at 5% under the proposed policy. The VAT on imported equipment will be returned within one year.

Fiscal Stability

Outside of its investment policies, one of the major reasons Sudan has failed to attract foreign investment is the perception within the international community that Sudan is politically and socially unstable. Investors need to be certain that their investments will not be nationalized such as happened in Venezuela. Investors need to be assured that agreements signed for taxes, import taxes, and exchange regulations will be stable and respected by the current and future Sudanese governments. The author proposes a fiscal stability period of 20 years beginning from the end of the feasibility study; this agreement will be binding to both investors and the government of Sudan under international law. Such a measure will make decisions to invest in Sudan less risky than previously perceived.

Depreciation Costs

Because mine development is capital intensive, the new policy will provide an attractive depreciation cost plan for mine site construction. Construction costs will be depreciated over four years: 40% the first year, 25% the second, 20% the third, and 15% the fourth year, starting the year construction is completed.

Loss Carry Forward

Sometimes a mining investment will not turn a profit its first few years of production and investors may take on losses due to mineral prices and investment costs. It is important that the government of Sudan take into account the ups and downs of commodity prices (the Mining Cycle) when it comes to taxes. Mining investors need high profits during commodity price increases in order to offset periods of low commodity prices. Loss carry forward is an important feature of the proposed mining policy, allowing losses to be carried over against future profits for up to four years. This feature will be very helpful to mining investors as it will

preserve cash which otherwise would have to be paid to the Sudanese government. The funds retained by the mining company can be used for expansion, exploration, working capital or the hiring of additional employees.

Environmental Deductions

Rehabilitation of mined areas will be the responsibility of the mining companies. Up to 1.5% will be deducted from operational and mineral extraction costs to spend on environmental protection, enhancement, and remediation. An additional 3% will be deducted from exploration and feasibility costs by the same investor on another potential investment in the future. This deduction is likely to motivate the investor to do better than what is required for mine closure and reclamation. The additional 3% exploration and feasibility deduction is likely to increase the chances that those already investing in the Sudanese mining industry will invest even more.

Royalties

Under the current policy, royalties are negotiated for and kept by the state in which the mining is taking place. Currently the French mining company Cogema pays a 6% royalty tax for their Hassassi Gold Mine, while the Saudi Arabian mining company Maa'din agreed to a 4% tax for a property in the same state. The current national average is 4%. The proposed new policy will cap the royalty tax at a maximum of 3.5% on initial mining investments, while any additional investments will be assessed a maximum royalty tax of 2%. This is likely to bring additional foreign investments to Sudan.

Infrastructure Deductions

This feature will allow the mining companies to deduct 20% of the total costs of infrastructure built to mine the resources. The 20% will be deducted from the income tax over a period of three years at 10% for the first year, 7.5% for the second, and 2.5% for the third, beginning three years after construction has been completed. This feature will certainly benefit mining companies in one way while benefiting the Sudanese government and its people in many ways. While the companies will be refunded some of their construction costs, associated with mining, processing and transporting minerals, Sudan will have infrastructure built for it without having to pay for it. The economy of Sudan will grow even larger as goods are transported using an infrastructure built by a mining company. The citizens of Sudan will have access to safe and reliable infrastructure, improving their day- to- day lives. Such infrastructure will attract additional mining investment as the presence or lack of infrastructure is one of the key factors for a company determining whether to invest in a country such as Sudan.

Access to Markets

Currently, Sudan allows mining companies to sell only up to 65% of their mineral commodities in international markets. As a result of mining globalization, such a restriction puts the mining company at a disadvantage as compared to competing companies. The proposed increase to 75% will allow mining companies to sell more of their products wherever they desire. This feature will ultimately contribute to attracting more investments.

Creation of a Gold Exchange

Establishing a gold exchange will enable the mining companies and the government of Sudan to sell their shares of mineral commodities at international market value in USD without having to ship them overseas. This feature will reduce the costs associated with securing

mineral commodities and transporting them to overseas markets. The government of Sudan will also have increased access to hard currency which is currently in short supply.

One Stop Shop

The process by which a company must register and obtain a mining permit is lengthy and cumbersome. Many investors have expressed frustration with a process dominated by speculative brokers that lacks proper channels to curb corruption. The proposed department will be part of the Ministry of Mining and Mineral Resources, the department will have representatives of all the authorities concerned in one building. This mechanism will reduce or eliminate corruption and significantly reduce time and cost for obtaining permits.

Improving Gras

The Ministry of Mining and Mineral Resources must be able to create a technical institute capable of providing analytical services for the Sudanese mining industry. The institute must be able to provide geochemical and metallurgical analyses using state-of-the-art instrumentation. Information from mineralogical investigations should be an integral part of every stage of the life cycle of a mining investment, from exploration through closure and site rehabilitation.

It is vital that an organization capable of providing mineralogical data for the mining industry be found within the country. During exploration, mineralogy provides an early indication of the extraction process likely to be required later. Mineralogical services including quantification of significant minerals, determination of mineral compositions, and the description and quantification of factors such as size, shape, texture, associations, and liberation characteristics of the minerals in ore samples can be used by potential local and

foreign investors for feasibility studies. The proposed institute could be funded through the University of Khartoum. It should be able to provide the following services:

- Ore and process mineralogy using the latest techniques and equipment
- Mineral identification, description, and quantification
- Determination of mineral composition
- Geological mapping
- Services must be offered in a timely manner with reasonable costs

SUMMARY

Most industrialized countries such as Germany, France, the United Kingdom, Japan, the United States, and Canada have used their mineral resources as a springboard to catapult themselves into development¹⁰. The Sudanese mining industry has a dire need to establish a unique, competitive mining policy because the current policy or lack of it has failed to attract any substantial mining investment. Sudan must develop its mineral wealth efficiently to improve its people's standard of living. Now is the time to implement the proposed changes outlined in this paper so that Sudan can get on with prosperity, peace and development. Due to its limited financial and technological resources, Sudan must look to foreign investment to develop its mining industry. Despite the country's mineral wealth, investors will be willing to invest in Sudan only if there is a uniform, attractive mining policy. As soon as the new policy is implemented, mining investors will commit to investing in Sudan. It is critical that the new policy be implemented in a timely manner because the current prices of gold, silver and copper are at record highs. Making mining investments while commodity prices are high can lead to more investment which translates into more profit for the government of Sudan and its citizens. A viable Sudanese mining industry can have tremendous benefits for the country, making it possible, for example, for Sudan to be self-sufficient rather than relying on foreign aid.

Stopping Foreign Aid

According to the World Bank, Sudan receives significant foreign aid in various forms from international organizations such as the United Nations to deal with droughts and the effects of a civil war that has lasted a quarter of a century. The aid, estimated by the United

¹⁰ See MMSD Final Report, note 1, p.172

Nations at around 225 million USD,¹¹ is mainly used for housing refugees and dealing with food shortages. It is likely that the new policy will attract mining investments that pay large amounts of taxes to the government; that money can in turn be used to alleviate the burden on international donors.

Infrastructure Development

Mining requires running water, roads, bridges, shipping ports and telecommunications to operate effectively. Currently the Sudanese landscape does not offer adequate infrastructure in the rural areas where mining activities are taking place. Usually mining companies will build needed infrastructure or attract another investor to build it. Infrastructure building is capital intensive, but it provides employment. An infrastructure project stimulates other industries such as quarries and promotes construction growth that would otherwise be nonexistent. It has been proven time and time again that people will migrate to remote areas for work, farming, and living as long as they have access to basic needs such as electricity and clean drinking water. Infrastructure development by the mining industry can also help reduce congestion in cities within the country. Roads, bridges, and clean water wells can be used by others for the creation or transportation of goods, and that will promote the expansion of the Sudanese economy and result in more tax revenue for the government.

Better Healthcare

According to the United States Central Intelligence Agency (CIA), life expectancy in Sudan is 58 years, 21 years less than in industrialized nations such as the United States, Canada,

¹¹ Central Intelligence Agency (CIA) online Report, Sudan

Sweden, and the United Kingdom¹². Figure 13 shows life expectancy by region. Also according to the United States Central Intelligence Agency report on Sudan, only 57% of its citizens have access to clean water.¹³ The CIA also estimates the prevalence of HIV infection among adults at 1.1%¹⁴. Both statistics can be attributed to a lack of financial support. A better mining policy will attract foreign investments that will contribute large amounts of taxes that can be spent to better the health of the Sudanese people.

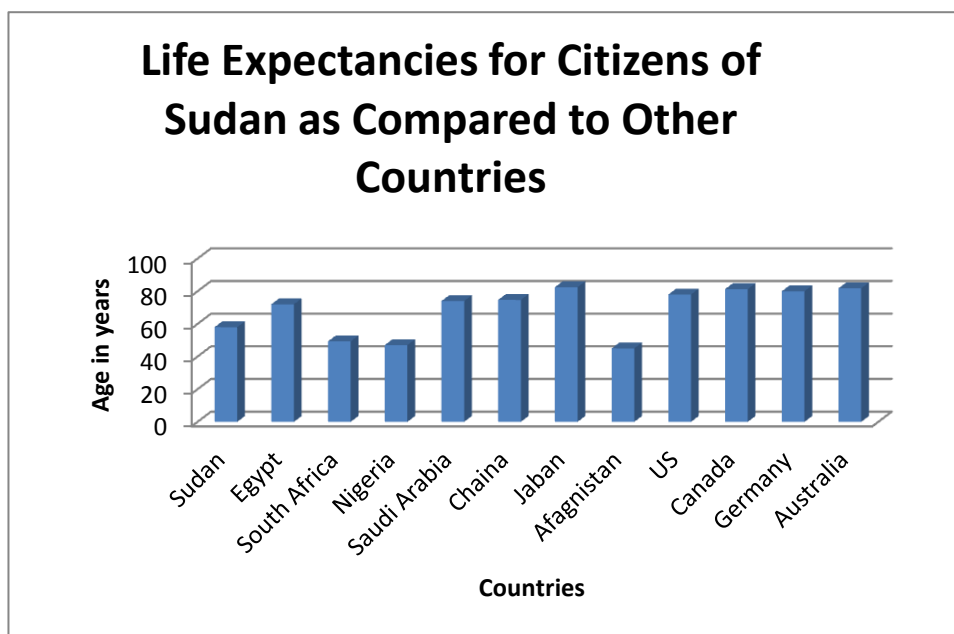


Figure 13: Comparison of Life Expectancies for Citizens of Sudan with other Countries. Source: CIA

¹² United States Central Intelligence Agency (CIA) Report on Sudan

¹³ United States Central Intelligence Agency (CIA) Report on Sudan

¹⁴ United States Central Intelligence Agency (CIA) Report on Sudan

Increased Employment

The mining sector employs thousands of Sudanese people and provides millions of dollars of personal income throughout Sudan. Sudanese mining jobs include exploration, mine development, and mineral production jobs. The mines of Sudan produce gold, silver, copper, sand, gravel, rock, and more. Jobs offered by mining companies pay an average of \$4500 per year in a country where the average yearly income per capita is less than \$2500¹⁵. Mining jobs will improve the standard of living for many Sudanese workers and it can also create jobs in other sectors. Figure 14 shows the current yearly per capita income of Sudanese citizens as compared to other African nations with similar mineral resources. This figure illustrates the need for Sudan to adopt a better mining policy immediately. Simply put, the proposed mining policy will result in more high paying jobs that are sure to better the lives of Sudan's citizens.

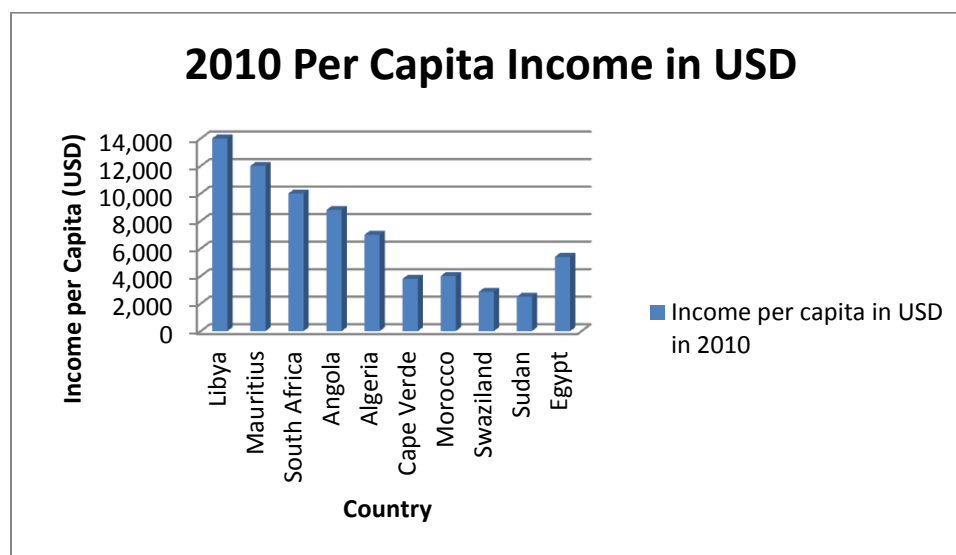


Figure 14: Comparison of Per Capita Income in Sudan with other African Countries. Source: CIA

¹⁵ Central Intelligence Agency report on Sudan

Skills and Technology Development

Mining companies have various standards, practices, and processes requiring training in the safe and effective use of various technologies, machines, and equipment with which most Sudanese workers have not had any experience. One of the benefits of implementing the proposed mining policy is that mining companies will facilitate and encourage high level skills, theoretical and practical training, and the development of their workers' technological skills in order to effectively mine the targeted resource. The acquisition of such skills by the Sudanese work force is an investment in human capital. Over time the Sudanese work force could develop sufficient skills to would allow it to take the lead in mining without having to rely so heavily on foreign companies. The proposed policy will certainly lead to a better- equipped work force that is ready to deal with the mining challenges of Sudan.

Improved Educational Facilities

Under the proposed mining policy, the government of Sudan will have more money in tax revenues to spend on education. According to the CIA, the literacy rate for youth 15 to 24 years of age is 82% and the survival rate to the last primary grade is only 56%. The statistics for rural areas are even more alarming.¹⁶ With more spending on education as a result of increased taxes, the people of Sudan could easily reach a literacy rate of 100%. Residents of rural areas could benefit greatly from a mining policy that would bring taxes to their localities because royalty taxes are collected, appropriated, and spent by the mineral- producing state.

¹⁶ Central Intelligence Agency Report on Sudan

CONCLUSION

It is evident from the argument made here that the current Sudanese mining policy has failed to attract any major mining companies, and that this can be directly attributed to the lack of an adequate, uniform mining policy. The amendments proposed in this paper will give Sudan a better chance in its quest to attract mining companies. According to the World Bank, mining can be a great force for good. Mining investments help contribute to developing the infrastructure needed to expand the Sudanese economy. Mining investments will result in increased revenues to the government of Sudan as a result of increased taxes, ultimately leading to increased public investment in human capital infrastructure. Expanding the mining industry will stimulate the economy by allowing other industries to flourish, leading to increased employment and greater social and political stability. It is evident that Sudan needs to develop its resources in order to increase the standard of living for its citizens. This can only be achieved by having a mining policy that attracts investment, and the proposed mining policy amendments will produce the desired results.

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Investment Policies Intended to Attract Foreign Mining Investment and Development

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