Adegbite Adeniji Denver, CO. USA. May 2001
adeniji@advisoryng.com

"FROM EXODUS TO RENAISSANCE:
Sector Reforms In African Mining"

ADEGBITE E. ADENIJI

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Adegbite Adeniji

1. INTRODUCTION

This paper will explore the hypothesis that African countries can attract a greater share of transnational mining investment to unlock their undermined geological potential if they undertake mining sector reform[1]. The expectation is that increased mineral exploration and development that will follow these reforms can become self - sustaining and provide a continuous revenue stream and other economic benefits to these countries.

Mining and Economic Development

Mining undoubtedly plays a positive role in economic development. For most African governments, it is a critical source of tax and foreign exchange revenues necessary to finance trade, develop infrastructure, promote industrialization and provide jobs that may develop local skills.

The benefits of mining could however be outweighed by the environmental, social and structural problems that could result from unplanned and badly managed mining activity. Amongst other things, poor economic management could lead to a negative impact of mineral endowment as scarce resources could be shifted away from other sectors for mineral production. This syndrome of de – industrialization commonly defined as the "Dutch Disease" has been the bane of most mineral or mono - product economies all over the world.

In *"Sustaining Development in Mineral Economies - The Resource Curse Thesis",* Richard Auty argues that countries with abundant resource endowments have failed to develop compared to countries of similar size and level of economic development. He concludes that in a world of meddling Governments and uncertain mineral prices, mineral dependent economies are likely to experience a curse rather than a blessing from their mineral endowment. He submits that only careful windfall management can avoid resource curse. Although the Dutch disease and the resource curse involve an examination of concepts in macroeconomic management that are beyond the scope of this enquiry[2], some elements of Auty's arguments will be examined in the course of this paper in so far as they relate to any of the countries under review.

2. THE COUNTRIES UNDER REVIEW

The focus of this paper are the main strategies applied in the reforms undertaken in the mineral sectors of 4 (four) African countries that are very dependent on tax and export revenues accruing from mineral production - Guinea, Ghana, Tanzania and Mozambique. These countries will be classified as "mature" countries as their sector reforms have been largely concluded and appreciable developments have since followed these reforms.

Related developments in the mineral sectors of two other mineral rich countries, Nigeria and South Africa, will be assessed in the course of the review. These countries will be described for our present purposes as countries in transition in view of the proposed sector reforms in Nigeria and, in respect of South Africa, the proposed mining law announced by the Government.

The paper will then consider the issue of whether the expected benefits of sector reforms have been realized in the mature countries. Finally, some of the strategies applied in the sector reforms will be reviewed as the basis for best practice formulae for the countries in transition.

Ghana **-** With one of the largest gold reserves in the world, Ghana led the African mining renaissance. It reviewed its mineral policy in the mid - 1980s with a view to attracting foreign direct investment in its mining sector. As of today, the Ghanaian mining sector reform is universally considered as the most successful of the reforms undertaken in Africa. Ghana is also a major exporter of bauxite, manganese ore and diamonds.

Guinea **-** Although Guinea is largely an agrarian country, it is the foremost exporter of bauxite and the second largest producer of bauxite ore in the world. Exports of bauxite and alumina provided 61.4% and 80% of exports earnings in 1996 and 1999 respectively and total mining sector contribution to GDP in 1999 was 20%[3]. Other significant mineral occurrences in Guinea are gold, diamonds, iron ore and granite.

Mozambique **-** Mineral activity in Mozambique is centered on the production and export of bauxite, gemstones, graphite and marble. The country is host to the world class Mozal Aluminum Smelter and other major iron ore, gold, tantalum, titanium mining operations.

Sub – Saharan Africa's most populated country, ***Nigeria***, desperately needs to diversify its economy away from petroleum. Prior to the commencement of commercial exploitation of crude oil in the 1960s, its foreign reserves were built on cocoa, palm kernel, tin and coal exports. The country has however suffered the most extreme form of resource curse and Dutch disease as its mining, agriculture and manufacturing sectors have suffered neglect at the expense of petroleum development. The contribution of the mining sector to the economy is negligible despite the construction of an aluminum smelter, steel and iron ore processing plants and widespread mineral occurrences in the country. Clearly, Nigeria could benefit from the exploitation of its geological potential[4]. To that end, a sector reform program that has been haphazardly implemented since 1996 has been revived by the new administration.

South Africa **–** With extensive infrastructure, a diversified manufacturing base and a long history of mineral development, South Africa is the economic powerhouse of the African continent. Mineral production is the most important sector of the South African economy. It is the largest gold producer and the third largest producer of coal in the world. Other key mineral occurrences are platinum group metals, ores, titanium and uranium. 55 different minerals were produced in South Africa in 1997 from 695 different mines and quarries including 61 coal mines, 54 diamond and 53 gold mines. Total minerals export in 1997 was $30.9 billion at 43% of foreign exchange earnings. Of the mineral exports, gold accounted for $5.3 billion, coal $1.8 million, platinum group minerals $1.8 billion and secondary minerals $3.5 million[5].

Tanzania initiated a 5 year "Mineral sector Development Project" in 1994 with the strengthening of the administration and policies in the mining sector. With the project now completed, the sector is host to several gold exploration and mining projects. Investors are also active in mining for nickel, cobalt, diamonds and other gemstones.

3. FOREIGN INVESTMENT ISSUES – HISTORICAL CONSTRAINTS TO MINERAL INVESTMENT IN AFRICA

Although endowed with abundant mineral potential, Africa has been unable to attract mineral investment commensurate to its geology. The fundamental problem is the lack of an attractive enabling environment for mineral investment in several countries. The underlying reasons for this are rampant official corruption[6], a paucity of geological information, inadequate infrastructure, unlicensed mining, the weakness of the regulatory institutions, inadequate and outmoded laws and, excessive Government take.

Another major impediment to mining investment in Africa is political instability arising from civil and trans – border wars and coups d'etat[7]. These conflicts often create a situation of unstable laws and a lowering of standards of public administration due to frequent changes in administrations, policies and Government officials.

In a quest for resource control after a long period of colonialism, most African countries adopted confiscatory policies towards foreign investors in the 1960s and 1970s[8]. State ownership or participation and high taxes were the order of the day. Exchange control was also widely applied as an instrument of fiscal policy and regulation of foreign investors. This was in an era of wars, famine, white elephant projects and embezzlement of state assets in Africa.

With the thawing of the cold war, subsidies to some socialist countries like **Mozambique** and Tanzania were drastically reduced and eventually terminated when the iron curtain fell. In **Nigeria**, a combination of factors including rampant corruption, an exploding population, falling crude oil prices in the 80s and a failed - IMF induced structural adjustment program took the economy into a tailspin. Meanwhile, France had adopted a policy of reducing economic assistance towards its former African colonies like **Guinea**. All these developments worsened the African economy as a whole.

With the prospect of huge capital commitments and long payout lead times, transnational mining companies (TMCs) reacted negatively to the risks that these developments imposed on their current and prospective projects and consequently curtailed investment.

The withdrawal of financial and technical participation by TMCs particularly in those countries where mining was the mainstay of the economy had a debilitating effect on the state owned companies. The overall African economy suffered as governments were unable to access investment capital for critical exploration and development activity and proved ill equipped to run the State Owned Enterprises effectively. Ultimately, the combined effects of depressed metals prices, external debt burden and the withdrawal of transnational mining corporations worsened the slump in the mining sectors of most African countries.

In the meantime, the global reformation of mining policies, which commenced in the early - 1980s, created an investors market as improved terms in Asia and South America opened up investment options for investors. Africa now had to compete with other regions for mineral investment.

Investors' Requirements - Faced with economic collapse and substantially reduced bargaining power, several countries in Africa embarked on economic restructuring, the hallmarks of which were liberalization of their foreign investment regimes and the introduction of more transparent and competitive terms for mineral investment in response to investor demands for regulatory environments and structures that guarantee security and profitability of investment[10]. The criteria applied by transnational mining companies in taking investment decisions are clearly discernable from some studies conducted on investors' requirements for mineral investment[9]. Apart from the basic fact that geological potential must be established, the studies indicate that the key factors that drive an investment decision by TMCs are related to the structure and content of a country's regulatory system. The United Nations (Otto) conducted a survey of the decision making process of 39 companies in 1992. As shown in Table 1, the results of the survey revealed the top 10 factors of relevance to transnational mining companies at the exploration and mining stages of mineral investment.

TABLE I – THE OTTO INDEX
Transnational Mining Companies Investment Decision Criteria

Exploration Stage	**Mine Stage**	**Basis of Decision Criteria**
1	N/A	Geological Potential for target mineral
N/A	3	Measure of profitability
2	1	Security of tenure
3	2	Ability to repatriate profits
4	9	Consistency and constancy of mineral policies
5	7	Company has management control
6	11	Mineral ownership
7	6	Realistic foreign exchange regulations
8	4	Stability of exploration/mining terms
9	5	Ability to pre - determine tax liability

With Ghana leading the way in 1985, several African countries embarked on comprehensive mining reform programs, mainly in the early 1990s. Over 30 countries had either commenced a comprehensive mineral sector reform program or had reviewed their mining policies and codes by 1997. Appropriately, most of the reforms have focused on strengthening the ability of Government institutions to understand, follow and monitor the activity of investors and the international metals markets.

The result of the reforms in Africa has been renewed interest by transnational mining companies[11] resulting in significant investment in exploration projects throughout the 1990s, notably for Gold. These activities have led to major mineral discoveries, the opening of several world-class mines and the re – activation of old ones up till 1999 when the metal prices took a downturn worldwide.

4. SECTOR REFORMS – POLICY OBJECTIVES AND EXPECTED BENEFITS

The immediate objectives of mining sector reform can be stated to be the attraction of private sector capital inflows and technology necessary for the actualization of a country's mineral potential. From a broader perspective, reforms and the expected increase in mining investment are expected to lead to increased employment and infrastructural development often in remote and depressed areas, increased tax and export revenues necessary to finance economic development, the development of support industries and, generally, contribute to economic growth and ensure a sustainable future for mineral development in the country[12].

The initial challenge for governments desiring the benefits of reform is the issue of how to introduce such policies that will lead to increased mineral investment. Often, an orderly development of mineral resources starts with an articulated policy presenting a clear statement of the objectives of the country and its priorities regarding the mineral sector which the public and private sector will work towards – effectively, a blueprint for mineral development.

In the context of mineral sector reform, the policy should clearly state the expected benefits of reform. It is important for the eventual success of the policy that it be well received both with in and outside Government[13]. This can be achieved by a well publicized consultative process, which will allow for the interests of all stakeholders to be taken account of in the mining process.

Given their nascent failure to mobilize the substantial managerial, technical and financial resources necessary for large - scale mining, there has been a paradigm shift in policy by most African Governments away from state participation in mining projects. As will be seen in the text, the recent approach of African Governments is to act as a facilitator and regulator of private sector mining activity.

The main objective of the **Guinea**n mineral policy released in 1995, is the sustenance of Guinea's position as a leading producer of bauxite and alumina and to encourage inward investment for the development of its iron ore, gold and diamond resources[14].

In **Mozambique**, the declared mining and petroleum policy of the country is to reduce Government direct participation in mineral activities and increase mineral exports[15]. Foreign direct investment in mineral development will be encouraged in order to increase foreign exchange reserves, provide employment opportunities for Mozambicans, and derive other benefits from rural infrastructural development.

The **Nigeria**n National Policy in Solid Minerals 1996 aims at encouraging orderly development of minerals by the private sector. The policy proclaims a new role for Government: the creation of an enabling environment for mineral investment through the provision of physical infrastructure and the promotion of geological opportunities to foreign investors. In addition, much store is placed on new investment legislations, which signaled a rapid departure from exchange control and foreign ownership restrictions of businesses. This paper will review the factors that have continued to militate against the implementation of the policy.

One of the elements of the Economic Recovery Program (ERP), a program of economic policy reforms launched by the **Ghana**ian government in 1983, was the creation of an enabling environment for foreign and domestic investment. Key components of the program were the review of Ghana's mining and investment laws. A restructuring program for the regulatory institutions soon followed. Although there is no official policy document on mining in Ghana, policy elements can be discerned from the minerals code and mining title documents. These indicate that the focus of the government is to ensure efficient mineral exploration and exploitation in an environmentally sensitive manner. Policy goals are further amplified in the *Mining Sector Development and Environment Project 1995*, which declared, that Ghana's mining sector will be developed in an environmentally sound basis. The project was aimed at ensuring sustained sector growth, attracting private capital and poverty alleviation by increasing employment in the rural areas leading to the development of a small scale mining sector and opportunities for local contractors, suppliers, consultants and miners[16].

Tanzania commenced a Mineral Sector Development and Technical Assistance Project in 1994 under the auspices of the World Bank. The stated objective of this program was to expand private investment in mining and to improve the productivity, income and social conditions of small-scale miners operating in the rural areas. An official mining policy followed in 1997[17]. The policy stresses that private sector initiatives and the need to attract modern technology and necessary investment capital for large-scale mining would be the focus of government in the administration of the mining sector.

Current law in **South Africa** allows private ownership of mineral rights concurrently with state ownership. Consequently, 4 mining houses control most of South African mineral lands and production – Anglo American/De Beers, JCI, Gencor/ Gold Fields and Anglovaal. The ANC - led government appears determined to review the structure of the sector on the basis that minerals are property belonging to all South Africans and should therefore be vested unto the state on behalf of the people. The government has therefore proposed a controversial Minerals Development Bill that will require mining companies to exploit mineral reserves or risk losing them. Unexploited mining titles will be vested in the state for redistribution to black – owned businesses and foreign investors[18]. The proposed law will align South Africa with most mineral rich – countries whereby state ownership of minerals is the norm.

5. THE KEY STRATEGIES APPLIED IN MINING REFORM[19]

In most of the countries under review, mining sector reform has been undertaken as a component of a wider comprehensive economic restructuring program, invariably with World Bank support. This involves the reform of policies and laws that affect foreign direct investment such as laws relating to import and export of goods, currency exchange, land use, taxation, infrastructure provision, water use, industrial labor health and safety and the environment and finally, mining.

***i. Mining Codes* -** Mining law reform heralds the commitment of a country to the objectives set out in its mineral policy. It is therefore a key driver to the revitalization of the mining industry. However, the reform of a country's mineral code is by itself insufficient to drive the revitalization process[20]. At best, it can be described as a fundamental pillar in the entire sector reform process and a key component of the overall investment regime that an investor will consider before making an investment decision. As the Otto/UN study on investment preferences has indicated, other factors such as geology, infrastructure, and political and institutional risks also play a critical role in the investment decision-making process[21].

The mining law reform process in Africa commenced with the enactment in **Ghana** of the *Minerals and Mining Law (PNDCL 153 1986)*[22]. This was followed by the *Minerals (Royalties) Regulations*, *1987*, the *Minerals Export Duty (Abolition) Law*, *1987*, the *Precious Minerals and Marketing Corporation Law*, the *Minerals and Mining (Amendment) Act 1994*, and the *Additional Profits Law, 1995*. As will be seen, these legislations collectively attempted to address previous anomalies in the legal, regulatory and fiscal framework for mining in Ghana.

In **Tanzania**, one of the declared objectives of the mineral policy of 1997 was that an internationally competitive legal and regulatory framework would be established to attract and sustain foreign and local investment in the mineral sector. One of the immediate results of this declaration was the repeal of the *National Investment (Promotion and Protection) Act of 1990* and the enactment of the *Tanzanian Investment Act*, *1997*. The salient features of the latter statute are that it guaranteed the protection of all investments in Tanzania against expropriation and nationalization and granted some fiscal incentives, although more detailed provisions are contained in another statute enacted in the same year: the *Financial Laws (Miscellaneous Amendments) Act*.

The **Guinea**n government has pursued a policy of liberalization of mineral investment conditions and a reduction of the influence of state owned – companies in the sector. The *Mining Code of 1995* provides for incentives, mineral ownership, mining fees, mining titles, royalties and other taxes. Foreign investors are guaranteed equal access before the law, particularly against expropriation and may transfer capital freely. Arbitration under the rules of ICSID or ICC is available in respect of disputes with the government. In **Mozambique**, the applicable law is the *Mining Law No 2/86* and the regulations issued pursuant to the *Mining Law Regulations Decree No 13/87*. In addition, a special fiscal regime, created under the *Tax Code, Decree No 3/87 of 1993* applies. Title to minerals is vested in the state and regulatory authority is delegated to the Minister of Mineral Resources and Energy.

Nigeria enacted 2 major legislations designed to liberalize the legal regime for inward investments in 1995: the *Foreign Exchange (Miscellaneous Provisions) Act* and the *Nigerian Investment Promotions Act*. The former statute abolished exchange control and provided for the free inflow and outflow of investment capital and dividends. The latter statute provided for 100% foreign ownership of enterprises in Nigeria, subject to minimal exceptions; the statute also contains provisions guaranteeing against expropriation of foreign investment in Nigeria except for public purposes. More importantly, investment disputes with the government will be subject to international arbitration under the rules of ICSID. A major overhaul of Nigeria's outdated mining laws followed in 1999 upon the enactment of the *Minerals and Mining Decree*.

Key provisions: Nature of Mining Titles, Security of Tenure and Administrative Discretion

The grant of title to mineral raises questions as to the nature of the rights acquired by the holder of the title. When does title vest after exploration? Another equally critical issue is whether mining titles can be freely transferred, pledged or mortgaged.

The concept of security of tenure is a very important factor in mineral investment given the risks inherent in committing huge capital to high-risk exploration activity, often in jurisdictions with little or no tradition of protection of foreign capital. Simply stated, it refers to the expectation of a rights holder that he will have the right to peacefully conduct exploration activity for the duration of the exploration license and the right to develop a successful discovery i.e. a right to mine[23].

The underlying issues in the concept of security of tenure are that titles are expected to be of sufficiently adequate duration to cover the period necessary to allow for amortization of investment. Of paramount importance is the ability of the investor to renew title and his protection from such practices that will undermine his ability to develop a successful discovery or transfer his title to third parties.

In its practical application, the concept of security of tenure envisages clarity and transparency in the law and the removal or substantial reduction of administrative discretion on decisions affecting mineral title and the continuity of operations. It also envisages that the administrative process and burdensome administrative procedures will be streamlined. An investor's dilemma is worsened if the regulations allow for such levels of administrative discretion that will effectively subject him to the whims and caprices of state officials, especially regarding licensing and the transition of title in the mineral development process. Discretionary regulatory powers often tend to create opportunities for corruption and could substantially increase an investor's transaction costs. Hence, one of the factors upon which a mining code is assessed is the extent to which the code allows the exercise of discretion in the administrative process. A useful example of how this issue has been addressed in other regions is the Bolivian mining law sponsored by the World Bank: exploration and exploitation rights in the Bolivian mining code are unified as one title. This dispenses with the uncertainty over title to conduct mining operations.

In **Ghana**, a Reconnaissance License may be issued for an exclusive or non - exclusive right to prospect for minerals over an unlimited area. Renewal is at the discretion of the Minister. However, the holder of the reconnaissance license has no automatic right to a prospecting license over all the minerals discovered in the same area. A Prospecting License on the other hand, grants the holder the right to prospect for specified minerals over an area up to 150 km for a period of 3 years. Subject to work obligations and expenditure commitments, a Prospecting License is renewable for unlimited number of 2 – year periods. The holder of a Prospecting License has a right to the grant of a Mining Lease on such conditions as the Minister may determine. The mining lease is executed along with an Investment Agreement, called a *Deed of Warranty*, the provisions of which are subject to international arbitration. It can be seen that the incidence of discretion in the transition from a prospective right to a mining lease has been minimized by the mandatory requirement that the minister *shall* (emphasis mine) grant a mining lease to an applicant once a commercial discovery of minerals has been made. A mining lease at the minimum is issued for 30 years and can be held for up to a renewable 30 year period, subject to the discretion of the Minister[24]

Under the **Mozambic**an *Mining Law of 1986*, as amended by *Law 5/94 of 1994* and the *Mining Regulations (Decree 13/87 of February 1987)*, the titles issued for medium and large - scale projects requiring foreign investment are the Non – Exclusive and the Exclusive Exploration Licenses and, the Mining License. The conduct of reconnaissance operations is covered by a non - exclusive exploration license. By its nature, the license implies that the grantee may simultaneously conduct reconnaissance activity within the area of the license along with other persons for a period of one year. However, the holder is entitled, upon the identification of a specific mineral, to the presumptive exclusive right, under an Exclusive Exploration License, to explore for the identified mineral in a portion of the area covered by the reconnaissance license and to a preference in priority to other claimants or applicant, to the minerals covered by the license. Once a commercial discovery had been made within the exploration area, the holder of an exclusive exploration license is entitled to the issuance of a mining license subject to an agreed work program and a budget. The initial term of the license is 25 years or the life of the mine. In addition, an *Investment Agreement* is entered into between the Government and the titleholder for the mine development. This agreement typically contains the work obligations of the titleholder, the details of the investment and the investment guarantees and the fiscal incentives granted to the project by the government, including commitments regarding the continuity of the licensing rights for the minerals. Other important aspects of the investment agreement are: international arbitration under ICSID and ICC rules, banking and currency risk guarantees, assurances regarding project assumptions and special provisions regarding project financing, farm – in options etc.

The **Guinea**n *Mining Code of 1995* provides for several classes of mining title commencing from the reconnaissance license, which may be issued for prospecting subject to a one – time renewal. A prospecting permit is granted for a 3 - year period and covers a defined exclusive area. This is an attempt to correct the previous anomaly in the law that allowed for potential conflicts with other license holders in the same location. Thereafter, depending on the scale of the deposit identified, and the proposed mining activity, either an operating permit or a mining concession may be issued along with a mining agreement. These titles are assignable and entitle the holder to an exclusive right to the production of specific minerals from deposits. The mining concession is granted in respect of large-scale mining activity requiring substantial capital commitment and extensive infrastructure. This title is granted for a twenty - five year period renewable for further periods of 10 years each. Again, this is another improvement on the previous law, which provided for an initial term of 10 years.

Under the provisions of the **Nigeria**n *Minerals and Mining Law 1999*, the holder of a prospecting right shall be entitled to a mining lease if he has fulfilled the conditions of the grant of the prospecting right. The law anticipates delays in the issuance of the mining lease; hence the minister at his discretion may issue a "temporary mining lease". In both instances, the Minister determines the conditions of the grant of title. In the case of the Mining Lease, these conditions will be disclosed to the applicant at the time of the grant while, in the case of the temporary lease; hence, the Minister apparently has complete discretion regarding the conditions to impose on the lease. In the absence of a clear fiscal regime for mining in the country, the practicality of these provisions for commercial scale mining remains to be seen. The likelihood, in spite of these discretionary powers, is that the Minister may find that most of the conditions of the grant of a mining lease for a major project will be influenced by the preferences of investors after extensive negotiation of a mining agreement.

Although there are no specific provisions providing for ministerial discretion, a common thread running through the **Guinea**n Code is that there is no automatic right of renewal of title. All titles may be renewed subject to proof that the holders have complied with all obligations pertaining to the title and, in all instances except the reconnaissance license, title may mutate to a superior title only if proof has been shown of the existence of an economically developable deposit. The code further provides that whereas a prospecting permit holder may be entitled to the grant of an operating permit in respect of minerals found within the permit area, this right may not be automatic if there is a competing application for an operating permit in respect of the same area. In that event, both applicants will be treated on the merit of their proposals for the development of the deposit. Even if the terms were similar, the operating permit would be granted to the first applicant, which may not necessarily be the discoverer of the deposit.

Two – thirds of **South Africa**'s mining rights are in private hands. A proposed Mining Law will bring all mining titles within state control and introduce a "use it or lose it" principle into South African mining tenure system to ensure that land under license is actively explored and worked or relinquished. Although state control of mineral resources is the standard in Africa, this particular proposal has been roundly criticized in the South African mining industry because of its expropriatory undertones. Beyond that, the Minister in granting superior title once conditions have been met will exercise no discretion.

Transferability of Title and Dispute Resolution - Other important factors indicative of a well-structured mining code include the right of the titleholder to transfer and alienate title either by assignment, or mortgage or hypothetication. This is a critical element for bankability of a mining project and could constitute the defining issue in the procurement of financing for the development of a mine.

No less important is the issue of how disputes between the investor and the host Government will be addressed. The standard in countries with weak judicial systems or in countries with an unimpressive history of good relations between investor and Government is for disputes to be settled by international arbitration under the rules of the International Center for the Settlement of Investment Disputes at Basle, Switzerland or, under the rules of the International Chamber of Commerce in Paris.

The position of the laws in the countries under review on these two key issues is indicated in the following Table 2:

Table 2 - Transferability of Title and Dispute Resolution

	Transferability of Title	**Dispute Resolution**
Ghana	Subject to the consent of the Minister	International Arbitration
Guinea	Only the Operating Permit and the Mining Concession may be transferred	Local or International Arbitration
Mozambique	Subject to the consent of the Minister	International Arbitration
Nigeria	Subject to the consent of the Minister	International Arbitration
South Africa	Private rights.	Legislation proposed

ii. Dismantling the formal barriers to foreign investment – The adoption of exchange control, expatriate quotas, business permits and such other practices by several African governments in the 1960s and 1970s tended to complicate the bureaucratic process and encouraged corrupt practices at official levels. Developments in international finance rendered these practices unrealistic. For projects in risky countries, exchange control and similar licensing practices for foreign investment tended to increase project costs and increased the exposure of the investment to the political risks inherent to these countries. For some countries, these practices affected the bankability of projects, while lenders displayed a level of understanding for some other countries. To ensure recoverability of project loans, it was a precondition to financing projects that project revenue streams be paid into offshore trust accounts. The message was clear that a liberalized foreign exchange regime that allows access to funds for payment of imports, and repatriation of dividends and capital is critical to mining investment.

Although Nigeria has adopted a liberalized foreign exchange regime, the practice of offshore domiciliation of mining project revenues remains untested as there has been no major mining project in the country since the late 1970s, save for the troubled Ikot Abasi Aluminum Smelter.

As indicated in **Table 3** the mature countries have all come to accept these requirements as the global standard:

Table 3 – Currency Risk management in Mineral Investment

	GHANA	GUINEA	TANZANIA	MOZAMBIQUE
Offshore Accounts	N/A	FX may be held in offshore bank accounts to meet project debt service obligations	N/A	Offshore bank accounts may be maintained for the receipt of sales proceeds subject to prior approval
Access to Foreign Currency	Assured by law. Investor may open FX accounts locally for overseas transactions	Assured by law	N/A	Limited exchange control. Otherwise, free import and export of FX. FX subject to availability But investor may hold FX bank account locally.
Capital and Dividend Repatriation	No restrictions	No restrictions	No restrictions	Guaranteed by law

iii. State Equity Participation **-** Another barrier to foreign investment is the practice of Governments in taking equity in projects. Governments justify this practice for political and economic reasons: for national pride as owner of the resources, to earn additional revenue from dividends, to protect national interests, ensure technology transfer and check unwholesome practices like transfer pricing, procurement frauds. However, these reasons often fly in the face of reality as Government participation tends to complicate the management issues in a project, increases the effective tax rate to the investor, can discourage the development of marginal deposits, leads to over – leveraging by investors of projects and results in cash call problems at critical stages of projects[25].

Although the same objectives can be achieved by having building a well structured and administered tax and mineral administration system, some countries still prefer to take interests in projects. In **Ghana**, foreign corporations engaged in the mineral sector may obtain mineral rights with the exception of minerals required for building and industrial minerals. These companies must however be incorporated in the country. In addition, Government is entitled to a free carried interest in every mineral operation and an option to acquire an additional 20% on negotiated terms where minerals are discovered in commercial quantities. Most investors find Government involvement in their projects can be a complication and the 10% free carried interest is regarded as an effective tax on profits[26]. In **Mozambique** it is the policy of the government to take an option to acquire an equity interest in a project at the development stage.

Prior to 1988, the **Tanzania**n state held majority ownership in all mineral enterprises. This requirement was abrogated in the *Model Agreement* issued in 1988. The new *Mining Act* enacted in 1999 simply vests ownership of minerals in the state and the administration of the minerals sector to the Ministry of Water, Energy and Minerals.

In a departure from the previous law, the current mining laws in **Guinea** have clarified the issue of the extent of state participation in mining projects. Previously, the State could hold 49% to 51% on a carried interest basis. This has now been reduced: Guinean interests may hold up to 15% of gold and gem operations, while state interests in bauxite operations will be subject of negotiations[27].

The **Nigerian** Government through the Nigerian Mining Corporation and its subsidiary companies is the holder of some choice pieces of mining real estate. Until the corporation is eventually privatized or its proposed joint ventures are consummated, Government will continue to own most of the titles in Nigeria. However, foreign investors may also enjoy 100% ownership of mining title if they are incorporated locally. The previous position was that an investor could only own 60% of a mining enterprise.

The data in the following table summarizes the position of the mature countries regarding State participation in mining projects.

Table 4 – State participation in Mineral Project

	GHANA	GUINEA	TANZANIA	MOZAMBIQUE
Government equity Participation	10% free carried interest	15% equity reserved for gold and gem operations	15% equity reserved	Government may take equity at development stage
	Government may also acquire an additional20% interest on negotiated terms if minerals discovered in commercial quantities	Government equity in bauxite and iron - ore projects subject to negotiations		

iv. Institutional Reforms – The collapse of the regulatory institutions for mining activity blunted the ability of most African countries to negotiate effectively with investors. Hence, opportunities for major investment have been lost through the failure of government officials to keep up with current developments in mining investment. Therefore, a very critical aspect of mining reform is the restructuring the institutions involved in the mining process and the initiation of a comprehensive capacity building process geared at strengthening these institutions and officials to effectively administer regulations and monitor sector development[28].

The main institutions include mining titles registries, land management departments, environmental agencies, the judiciary and mine inspectorate divisions. By restructuring these institutions, the mature countries have improved the efficiency of the administrative process through a streamlined process for the management of applications for mining titles and approvals of mining activity. A key development is the restructuring of the geological survey departments in the mature countries as this has led to the acquisition of modern geological databases and the discovery of more minerals after extensive geological, geophysical, geochemical and remote sensing surveys[29].

A component of the institutional reform process is the creation of one-stop shops. This is aimed at streamlining of the multiplicity of agencies by speeding up the application process and reducing the incidence of corruption that often follows dealings with a multiplicity of state agencies. Omalu and Waelde suggest[30] that this agency ought to be closely related to the ministry responsible for mining activities and act as the sponsor of a project in dealings with other agencies. **Mozambique** has established a new minerals administration system while **Guinea** has also created the Center de Promotion et de Development Miners (CPDM) as a one – stop window for mining investors within the

Ministry of Mines, Geology and the Environment. The **Nigeria**n Minerals and Mining Decree 1999 provides for a similar one – stop window within the Ministry, but this is not currently functional. Another statutory one – stop shop for foreign investors**,** the Nigeria Investment Promotions Commission (NIPC), was created in 1995. Clearly, this duplication of shops will require to be streamlined for efficient administration lest the bureaucratic issues earlier discussed become even more compounded. **Ghana** established the Minerals Commission in 1986 as a one - stop mining investment center in order to avoid bureaucratic delays in mineral administration. The commission administers the mining sector, provides policy advice to the Government on exploration and development activity, promotes foreign investment, negotiates leases and reviews public agreements. It is also a liaison between the Government and the industry. A one-stop agency, the Tanzanian Investment Center, was established under the Tanzania Investment Act for the promotion, facilitation and co – ordination of investment in **Tanzania**.

v*. *Revised Fiscal Terms and Systems - The main objective of a mining tax regime is to attempt to achieve a balance between the need to compensate the mineral owner (Government) for use of the mineral and to reward the investor for the risks associated with the investment and his efforts in discovering, developing, mining and processing the mineral[31]. A modern fiscal regime will encourage more investment and achieve more rent returns to government over the long term if it recognizes and mitigates risk sensitivities during all stages of mineral development. This can be achieved if it allows for enhanced debt service capacity, adaptability to price sensitivities and grants relief for losses that can be offset against future profits.

Previously, the typical fiscal regime for mining in an African country will attempt to tax gross revenue through a combination of signature bonuses, concession fees, duties on mining equipment, income taxes, royalties, free carried interest, import and export duties and transaction taxes like sales tax, VAT, withholding tax and additional profits tax[32]. However, as indicated in the appendices, the mature countries appear generally to have captured the realities of modern mineral investment. These require that Governments introduce competitive mining specific incentives comparable to countries in other regions of the world[33]. These generally imply an earnings - based resource taxation structure that focuses more on profits tax and profit sharing and less on royalty payments[34] .

Further imperatives for reducing the risk of total loss of investment in volatile countries are mechanisms that allow for early recovery of capital and operating costs incurred in the exploration and development phases[35]. Amongst other fiscal strategies, the mature countries have responded to this issue by eliminating input and output taxes like import and export duties[36].

Lastly, it is important to investors that the stability of the fiscal terms and investment assumptions are guaranteed in the granting documents.

6. THE RESULTS OF MINING SECTOR REFORMS

***i. The Renaissance* -** There is abundant evidence to the effect that Africa experienced a renaissance throughout the late 1980s and the 1990s as signified by intense competition between countries for mining investment and between mining investors for concessions. Further evidence indicates that the return of mining investors to Africa is attributable to the efforts undertaken in sector reform all over the continent[37].

In **Ghana**, Ashanti Goldfields company has grown in the past 8 years as a major international mining company with activities and seven producing properties in Ghana (Obuasi, Bibiani, Iduapriem/Teberebie, Ayanfuri) Tanzania (Geita), Guinea (Siguiri) and Zimbabwe (Freda Rebecca). It also has 25 active exploration projects in several countries within and outside Africa[38]. It acquired Cluff Resources of South Africa in 1996 (Cluff Resources has a portfolio of Gold interests in Africa including Kalsaka in Burkina Faso). Its flagship property is the Obuasi gold mine. It also holds title to the Bibiani gold project near Kumasi which achieved the distinction of being the first gold project financing in sub – Saharan Africa with no political risk insurance or involvement of multi – lateral institutions.

Other significant projects and investors in Ghana since 1990 are the Prestea gold mine owned by Golden Star Resources of Canada. This property is the second most prolific mine in Ghana after the Obuasi gold mine and is located south of the Bogoso mine which Golden Star also controls. Up to $14 million has been spent on developing the property since 1995; the Karta and Fayalala gold deposits both owned by Kenor of Norway (the latter is a prospective 2 million ounce deposit); the Chirano Gold Project owned by Chirano Red Back of Australia, the Iduapriem Gold Mine owned by Ranger minerals; the Bogoso Gold Mine acquired by Golden Star Resources Limited and Anvil Mining with financing provided by the IFC and DEG; the Yamfo - Sefwi Resource, controlled by Normandy Mining, the largest Gold producer in Australia (the mine is billed as a world class deposit); Gold Fields of Ghana which controls the northern portion of the Teberebie Property and the Tarkwa mine.

Mining activity in **Guinea** is no less illustrious. Ashanti Gold Fields controls the world class Siguiri gold mine. It secured project financing for $40 million for the construction of the mine. Notably, no bi – lateral or multi – lateral institutions were involved in this financing nor political risk insurance taken. This mine is the largest gold mine and one of the largest foreign investments in Guinea in recent years. However, Guinea's flagship mining project is the Friguia, the largest bauxite mine in the world, which is owned by a consortium of the largest Aluminum companies in the world and the Guinea Government through the Companie Des Bauxites de Guinee. Another important project is the Jean Gobele Project owned by Semafo under a licence issued year 2000 for 10 years. The mine will produce 60,000 ounces of gold per year.

Apart from the Moma Titanium Project earlier discussed, **Mozambique** is host to the Mozal Project, a world class, low - cost aluminum smelter. Owned by Billiton PLC, Mitsubishi Corp and the Industrial Development Corporation of South Africa, this $1.22

billion exclusively export - oriented smelter is the largest private sector investment in Mozambique. Another major project in Mozambique is the Congolone Mineral Sands Project. The production of Ilmenite from this project is expected to produce gross revenues of close to $4.3 billion. Lastly, coal production in Mozambique might receive a major boost if investment of $400 million is injected into the rehabilitation of the Sena railway line that links the mines to the port of Beira.

As a direct result of the reforms in **Tanzania**, the country is now the third largest gold producer in Africa after Ghana and South Africa. More than $573 million has been invested in the mining sector since reforms were introduced in the sector. The key investors and projects are: the Pangea Goldfields/Minere Du Nord joint venture which has discovered major gold occurrences in the Kanegele property (Pangea also own a 70% interest in the Tulawaka Gold project); Golden Pride Mine owned by Resolute Limited is the first major gold mine in Tanzania since the 1960s; Ormonde Mining, the owner of the Mgusu and Bukoli gold projects. Ormonde also owns the Ikoka and Karumwa, Mrangi and Chunya licences; Ormonde and Pangea Resources are also in joint venture for the development of the Mgusu Gold Project; the Golden Ridge Gold Deposit - 50% interest acquired by Barrick Corporation; the Nzega Gold Mine owned by Resolute Mining; the Banyahulu Mine, a world class gold deposit with producibility of 400,000 ounces per annum. Capital investment expected in the order of $280 million; the Tarime Mine, owned by Australian company, African Mashariki developed at a cost of $80 million will produce 140,000 ounces of gold per annum. A world - class property, the Sadiola Hill Gold project, Tanzania's first major gold project in decades, came into production. Lastly, the Geita Deposit that will produce up to 500,000 ounces of gold per annum is one of the largest mines in Africa and is jointly owned by Ashanti Goldfields and Anglogold ["Geita comes in at a gallop". http://www.mining.co.za/Geita.htm.].

No fruitful purpose will be served in reciting the on – going projects in **South Africa**n as reforms are yet to be completed. Suffice to say that the industry employed an average of 551,677 workers in 1997 and paid a total remuneration of approximately $3.9 billion to the workforce[39].

As for **Nigeria**, Africa's sleeping giant, the data presented in **Table AEA2** below indicates that its mining sector is effectively comatose despite widespread mineral occurrences all over the country[40]. The country had emerged in 1999 from 16 years of military rule with a very weak judiciary, a reputation of being one of the most corrupt countries in the world and a constitutionally entrenched land tenure system that has proven to be a disincentive to mineral investment. Although hardly any major investment was made in the military years in infrastructure necessary for mining activity – roads in remote locations, electricity generation and transmission, telecommunications, ports equipment – the previous military rulers laid the foundations for its successor civilian government to build on: it established a separate ministry for mineral development (1995), a one – stop shop, the Nigerian Investment Promotion Commission (1995), reformed the laws governing foreign investment including the exchange control regime (1995), introduced a mining policy (1996), undertook a mineral appraisal program, "Nigerian Mineral Appraisal and Monetization Program (NIMAMOP, 1997) and, enacted a new mining code (1999). However, the paucity of mineral activity in Nigeria supports the view that institutional reforms and capacity building are just as important as the revision of the legal and policy framework if a country is to induce mineral investment. The challenge facing the current Government therefore is to demonstrate not only political will, but also action in undertaking the reforms necessary in tackling these issues otherwise, stagnation of the Nigeria mining sector will continue despite its abundant blessings.

TABLE AEA2: NIGERIA – MINERAL PRODUCTION (Metric Tons unless otherwise specified)

		1995	1996	1997
Columbium and Tantalum Concentrates e/				
Gross Weight		65 r/	67 r/	60
Columbium Content		26	23 r/	23
Gold	**grams**	5,000 e/	6,000	6,000
Iron & Steel e/				
Iron Ore, Gross Weight		168	100	50
Steel, crude		36	20	**--**
Lead, metal, refined		4	4	4
Tin				
Mine output, cassiterite concentrate				
Gross weight e/		357 r/	139 r/	150
Sn content		250 e/	100	100
Metal, smelter		259 r/	100 r/	100
Marble		3,128 r/	2,095	2,000
Coal, bituminous e/		**29,000 r/**	**7,116 r/**	**7,000**

r = revised
e = estimated

SOURCE: US Bureau of Mines Yearbooks 1997 and 1998

***ii. Foreign Direct Investment benefits to the Economy* -** The facts indicate that exploration expenditure in sub – Saharan Africa more than quadrupled from \$80 million in 1991 to \$310 million in 1997[41]. Production statistics indicate that annual gold production in Africa outside South Africa doubled from approximately 70 million metric tons in 1990 to approximately 140 million tons in 1998 at a value of \$1.3bn.

Ghana - The Ghanaian economy was in doldrums prior to the adoption of an Economic Recovery Program (ERP) in 1983. Real GDP had declined by 11% from 1972 to 1982 as manifested in the significant decline in the output of all major productive sectors of the economy: Cocoa, the main export earner had declined from 360,000 tons in the

1975/1976 season by the 159,000 in the 1983/84 season. The production of Gold, the second most significant export earner, had fallen from 704,00 ounces in 1970 to 277,000 in 1983[42].

The decline was however reversed. As of 1995, over 30,000 people were employed in the sector out of which approximately 11,000 were engaged in small-scale gold mining. In the same year, wages in the mineral sector were 75% above the national average[43]. As a result of the investment of more than $3bn in the Ghanaian mining sector 1983 – 97, mineral production rose significantly **[see Table 5]**. The annual gold output rose from approx 12 million tons in 1988 to 60 million tons in 1998 and mineral exports remained the second highest export earner throughout the 1990s. Consequently, gold accounted for $563.7m of export earnings in 1997, while it fetched $687.8m in 1998[44].

Gold production continues to contribute a significant proportion of Government revenues through royalties and taxes.

Table 5 – Ghana Mineral Production 1993 – 1997

	1993	1994	1995	1996	1997
Aluminum ('000 Mt)					
Bauxite	424	426	513	473	504
Metal smelter, primary	175	141	135	137	152
Diamond ('000 Carats)					
Gem	473	592	506	572	664
Industrial	118	148	126	143	166
Gold (kg)	38,911	43,478	53,087	49,211	54,662
Manganese ('000 MT)					
Ore	295	265	217	448	437
Mn content	115	101	82	152	140

Source: US Bureau of Mines Yearbook 1997

Another significant benefit of mining reform to Ghana, and perhaps the African continent, is that an African multi – national, Ashanti Goldfields Company, has emerged. This is a significant development considering that the company was short of capital to pursue exploration and development programs prior to its 1996 IPO and subsequent listing on stock exchanges in New York, Accra, Australia, London, Toronto, Harare and

Johannesburg. The cross - border listing in multiple stock exchanges has ensured that the company will have unlimited access to capital for its activities. The collateral value of the Ashanti cross – border listing is that the capitalization of the Accra, Harare and Johannesburg stock exchanges were substantially increased.

Guinea – Mining sector GDP in Guinea had declined by 1.2% in 1994 but increased by 7.5% in 1995 and by 11.7 in 1996. The actual contribution of mining to GDP in 1996 was 16.6% of GDP or 89% of government Revenues (Source: Europa World Yearbook 1999; US Bureau of Mines, 1997 Yearbook). The data in **Table AEA 4** demonstrates the significant annual increases in mineral production in Guinea between 1994 and 1999.

Table 6: Guinea - Mining Production 1990 – 1997 ('000 Metric tons unless otherwise specified)

	1994	**1995**	**1996**	**1997**	**1998**	**1999**
Bauxite	13,761	17,733	16,500*	17,100*	N/A	17, 200
Diamonds ('000 carats)	381	365	205	205	N/A	303
Alumina (calcined)	545	616	619	500	N/A	640
Gold (kilograms)	5,617	7,863	6,838	7,000	N/A	14,285 kg

[SOURCE:
* Dry basis

Source: Data complied from African Statistical Yearbook 1997, United Nations Economic Commission for Africa, US Bureau of Mines Yearbook 1997, Europa World Yearbook, Year 2000, www.mining-journal.com/GUINEA and Mining Journal, Guinea Supplement, March 2000.

The result of the increased mining investment in the country is that mining contribution to GDP had increased to 20% and more than 90% of total exports by 1999[45]. This was an improvement on 1998 when the sector contributed 75% of total export proceeds[46]

The benefits of large - scale mining activity in Guinea are further reflected in the contribution of mining to Guinea's GDP by economic activity:

	1994	**1995**	**1996**	**1997**
Mining and Quarrying	104	371.0	536.0	730.0
GDP at factor cost	-	7,040.6	10,067.0	12,603.0

Source: Data compiled from Europa World Yearbooks 1999 and 2000

Mozambique - Exploration expenditure levels have increased in Mozambique in the past few years: up from U$ 4.0 million in 1995, U$ 10.2 million in 1996, U$ 13.2 million in 1997 and U$ 15.5 million in 1998. The flagship Mozal Aluminum Smelter project will earn $430 million per annum thereby tripling Mozambican exports. Prior to reforms, the contribution of mining to Gross Domestic Product by kind of economic activity at current factor cost was negligible: at 11.803 meticals in 1993 out of total GDP of 5017660 meticals[47].

Tanzania –Mining sector exploration expenditures increased significantly in Tanzania up from $6 million in 1992 to $80 million in 1997 leading to a significant increase in the reserve stock of Tanzanian gold[48]. 9.6 million troy ounces of drill measured and indicated gold resources and an additional 8.1 million troy ounces of inferred gold resources were identified by seven of the most active operators in Tanzania at the end of 1997[49]. Mining's contribution to gross domestic product at factor cost prior to reforms was 26,842 million Tanzanian Shillings (1994) and 34894 million Tanzanian Shillings out of a total Gross Domestic Product of 1659929 and 2185689 million Tanzanian shillings respectively for 1994 and 1995[50]. As indicated in **Table 7,** there was a significant increase in export revenues from diamond, gold and gemstones between 1997 and 1999.

Table 7: Tanzania – Value of Mineral exports (US $)

	1997	**1998**	**1999**
Diamond	14.64	12.11	32.35
Gold	2.00	3.34	38.95
Other Gemstones	7.95	8.13	14.04
Salt	0.06	-	-
Phosphate	0.07	0.02	0.23
Graphite	0.08	-	-
Total	**26.80**	**23.60**	**85.57**

Source: The Mining Journal Annual Review 2000

The GDP of the Tanzanian economy grew by 4.9% in 1999 compared to 3.5% in 1998. Gold exports increased in 1999 at $38.95m, from $3.34m and $2.00m in 1998 and 1997 respectively[51]**.**

iii. Social and other Impacts

a) Some of the mature countries have benefited from the more diffuse benefits of mining activity like infrastructure provision, although it may be argued that most of the infrastructure projects were necessary, rather than altruistic efforts, by the mining companies to allow better access to and evacuation of minerals. In **Mozambique**, a dedicated harbor and port facilities was constructed at the Port of Maputo to facilitate the evacuation of production of aluminum at Mozal. Other benefits to Mozambique from the Mozal project include the completion of high voltage transmission lines between the Cabora Bassa hydroelectric dam and South Africa, the construction of a new $1.5 billion

2,500 megawatt Mepanda Uncua hydroelectric dam on the Zambezi River and an associated transmission line to Maputo, the upgrade of road and rail links, and the dredging and upgrade of Maputo harbor[52]. Maputo was chosen as the best location for the project in view of the deep - water berths at its Motolo port. Notwithstanding, a further sum of $70 million was spent on further dredging and upgrading of the port to industrial status[53]. In contrast, the siting of a $3 billion export - oriented Aluminum smelter in a densely forested and rural part of Southern Nigeria far away from port and harbor facilities compounded other complex problems arising from faulty project conception and design[54]

b) In virtually all the mature countries, mining activity contributed to local economic development through increased demand for goods and services and creation of local employment e.g. Pangea Gold mine in **Tanzania** where 300 people were employed during construction and 200 people thereafter and the Mozal Project in **Mozambique** which employed 5,000 during the construction phase and now employs almost 800 for its operations, most of whom are locals. In addition, some mining companies have developed social and corporate responsibility programs designed to contribute to social development in their host communities. A case in point is Ashanti Goldfields, which has built schools and hospitals and introduced a micro credit finance credit system in some of its host communities. It also relocated villagers from one of its concessions in **Ghana** to a newly built and more modern residential complex. A similar development occurred in **Guinea** where Gold fields of South Africa and Golden Knight relocated communities from its concession area to a new village and provided financial compensation to them.

As indicated in **Table 2**, mineral production in **Nigeria** is at very low levels currently. Hence, the country is unable to enjoy the benefits that other countries that have benefited from the mineral renaissance in Africa. Given the abundance of its oil and gas resources, it is unlikely that mineral activity would bring forth the level of earnings that the country has reaped from petroleum activity over the years. However, it has the potential of being a vehicle of rural economic development and poverty alleviation for its burgeoning populace. The reforms undertaken in other African countries have proved conclusively, that this is a feasible objective, if mineral policy is well structured and properly administered[55].

c) A focused and well-managed exploitation of industrial minerals can promote linkages in the local economy through import substitution. South Africa is a case in point. Although its mineral sector is well diversified, a sustained policy of import substitution through extensive exploitation of industrial minerals helped the South African economy during the years that its economy was closed to the world. This activity has spawned the establishment of several large concerns engaged in all aspects of mineral activity through processing and trading[56].

7. CONCLUSIONS

This paper has demonstrated that reforms of mineral policy, laws and administration can be applied to induce mineral development for immediate and long term social needs. The text has shown that if a host country does not provide adequate legal security and stability, mining investment will not occur, no matter the attractiveness of the geology nor the inducements the country may have to offer[57].

The strategies applied in a sampling of some of the countries that have embraced mining sector reform in Africa indicate that international mining investment is market driven: mining investment is risk sensitive. The mature countries have responded to the realities of the market for mineral investment by attending to the risk issues through a combination new generation pro – investment laws, fiscal and institutional reforms. Transnational mining companies have responded to the presence of certain fundamentals in their decision to invest in those countries. The results are self evident: increased exploration and mineral production in the mature countries in contrast to a transition country that still grasping with the fundamentals of reform.

The contribution of mineral exports to total export revenues in the mature countries post – reform further underlines the critical role that a properly managed mining sector could play in sustaining a resource rich country. That has been the case with South Africa where its minerals endowment has been used to develop local industry and technology. Notwithstanding its proposed reforms, the facts indicate that state title to minerals is not a disincentive to mineral investment. However, mineral tenure and security of title are critical to investors. The challenge of the administration in South Africa as it attempts to introduce a diligent exploitation requirement into its mining law is to concretely respond to the concerns of industry that title may be lost without compensation. The issue of compensation might also be an issue in the near future in Nigeria if it must rationalize its fragmented mineral grants to achieve an orderly development of mineral resources.

The immediate benefits of the reforms undertaken in the mature countries have been identified. There are however arguments that the benefits of mineral investment are illusory. The proponents of the illusory theory argue that large mining projects are enclave projects with limited linkages to the larger economy[58]**.** In some countries like Mozambique and South Africa, most of the miners are migrant labor from neighboring countries, hence there is little or no impact the local labor market. In addition, like most resource projects, a mining project can drive up costs in a community to the detriment of those that are unable to capture the benefits that can accrue from mining activity in their locality; hence it can radically disrupt the structure of a hitherto tranquil community. A further argument states that a large portion of the earnings of a project is domiciled abroad to service capital investment and that generous and “competitive” fiscal incentives leave hardly any opportunity for mining investment to impact the coffers of government for several years. Notwithstanding these arguments, the issues of whether the sector reforms will translate into long term benefits or result in a resource curse are matters outside the control of mining investors and more a function of economic management and sector administration.

We have also seen how mineral reforms contributed to regional and rural socio – economic development through investment. For countries like Nigeria that are grappling with declining per capita incomes and a rapidly growing population, proper sector management has the potential to arrest emigration from the rural areas to the cities and ensure that sustainable communities are developed through well ordered mining investment.

A critical challenge in further optimizing the benefits that could accrue from mineral investment is to design such policies that would promote backward and forward linkages through the establishment of service, supply and processing industries for local ownership. Quality of life for all can be enhanced subject to the caveat that sector policies are well conceived, reforms are well executed and modern management introduced to ensure that the negative impacts of mining do not outweigh the benefits that a restructured sector could bring to the country.

The latter issue implies that a capacity building and enlightenment process is of the utmost importance for public sector administrators. Amongst other things, they will require to be trained in the latest techniques in sector administration and updated on the current issues in international mineral investment. Until a solid understanding of the imperatives for mining investment is attained in the public sector, Governments will continue to lose out on the benefits that mining could bring to local economic development[59].

Adegbite Adeniji
Denver, Co USA
May, 2001

8. APPENDICES[60]

THE FISCAL REGIME FOR MINERAL INVESTMENTS IN THE MATURE COUNTRIES

	GHANA	GUINEA	TANZANIA	MOZAMBIQUE
1. TAXES				
Surface Rentals				
	U$1.20/Sq km for exploration period	U$1,150 p.a. initial fees	U$1.50/Sq km p.a. for exploration period	U$0.10/ha for reconnaissance period
	U$2.90/sq km for mining period	U$5,570 for mining period	U$1.50/Sq km p.a. for mining period	U$1.00/ha for Exploration period
VAT on Equipment	Exempted	N/A	14%	N/A
Corporate Income Taxes	35%	35%	30%	20% first ten yrs of production. 40% thereafter
	An excess/windfall profits tax of 25% is levied on payout and once the project achieves a ROI of 35%	Additional profits are taxed once profit margins exceed certain levels		
Royalty Based on:	Gross Mineral Value	Production	Gross Mineral Value	Production
	3 – 12% for Gold and Diamonds depending on operating ratio of the company Operating ratio: net cash Flow divided by gross Revenues Typically 3% Royalties are deductible. May be deferred (c/f) for income tax purposes.	50% on alumina 3.5% on concentrates 10% on bauxite 7% on other ores	3% of netback value 5% for diamond	30% generally 5% metals 6% gemstones (deductible)

Import Duties on equipment and materials imported for exploration and production	Exemption if equipment exclusively for comm - encement of mining operations	Exemption from exploration and processing equip- ment and spare parts 0.5% customs fee payable on CIF value of mine construction equipment	Exempted	Exempted
Export Taxes on products	Exempted	Exempted	Exempted	Exempted
WITHOLDING TAXES				
Dividends	All mines are usually Exempted	15%	10%	Exempted
Interest on Foreign Loans	10% May be exempted subject to negotiation	N/A	Exempted	Exempted
Foreign Services	5% May be exempted subject to negotiation	10%	3%	N/A

2. THE KEY INCENTIVES

Pre–production Expenses	Treated as capital allowance 75% @ 1st year of production. Declining balance thereafter	Exploration exp - enses may be deducted as soon as production commences	Expensed in 1st year of production	Expenditure incurrd prior to production may be carried forward and entered in the books at the first year of production Capital allowances of 20% may be claimed in respect of Investment in infrastructure

Depreciation	Accelerated. 75% in yr of expenditure 50% declining balance thereafter	Straight line or depreciating balance	Development costs Expensed fully in 1st year of production	Accelerated. Standard or straight line
	Granted on all OPEX and CAPEX		Capital costs expensed straight line over 5 years	Possible on OPEX and CAPEX
Tax Holidays	Not granted	4 – 8 years for bauxite and iron ore operations	Not granted	N/A
Depletion Allowances	Not granted	N/A	Available	N/A
Tax Stability	Not granted	Provided for in mining agreement	Not granted	May be granted in the mining agreement
Losses Carry Forward	Granted. No time limit. Losses limited to the value of capital allow – ances for the period	N/A	Granted. No time limit	N/A
Losses Carry Back	Granted. No time limit	Granted	Granted. No time limit	N/A
Ringfencing	No	N/A	No	Exploration and development expenditure incurred in an area may be set off against exploration and development expenditure in another area.

Adegbite Adeniji Denver, CO. USA. May 2001
adeniji@advisoryng.com

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9. ENDNOTES

[1] *"Mining Renaissance in Africa"*, Engineering and Mining Journal, September 1998 v199 n9. J.M. Otto: *"Global changes in mining laws, agreements and tax systems"*. Ken Gooding "*Treasure chest waiting to be unlocked".* Financial Times No 25 1995.

[2] For a detailed treatment of these concepts, see: *"Sustainability and primary extraction industries: Theory and Practice"*. Sarah Cowell, Walter Wehrmeyer, Peter Argust, J. Graham and S. Robertson. Resources Policy 25 (1999) 277 – 286**.**

[3] Mining Journal, January 22, 1999

[4] A database of mineral occurrences compiled further to the Nigerian Minerals and Monetisation Program confirmed the occurrence of significant quantities of tin, coal, gold, iron ore, marble, barite, and kaolin in Nigeria.

[5] Data compiled from African Statistical Yearbook 1997 UN ECA; Europa World Yearbooks 1999, 2000.

[6] In recent Corrupt Practices Indexes issued by transparency International, Nigeria, Tanzania, Ghana, Mozambique and South Africa received high rankings as those countries where public officials receive gratifications for the execution of their duties.

[7] Nigeria has only just emerged from a long era of military rule and is being governed by a democratic Government for the first time since 1983; Ghana was ruled by the military up till 1982 and has just had the first real change of Government since 1982. South Africa has recently emerged from apartheid but is experiencing the usual problems that beset a young democracy, while Tanzania and Mozambique were ruled by socialist regimes throughout the 1970s and 1980s.

[8] Gerard Padmore, a former Minister in Liberia in the 1970s, provides a treatment of the political reasons for the movement in Africa for state control of mineral enterprises in the 1960s and 1970s: *"Local participation in African Mining Projects – Trends for the New Century"*. Dec 4, 2000 pp 1 – 3, Proceedings of the 6th African Mining Investment Symposium. J.M. Otto also provides a historical background to the collapse of African mining and the catalysts for the return of investors in the 1990s in *"International competition for mineral investment: Implications for Africa".* Further perspectives are provided by Thomas W. Waelde in *"Third World Mineral Investment Policies in the late 1980s: restriction back to business".*

[9] Notably by the East – West Center (Johnson) 1990 and, by James Otto: *"A Global Survey of Mineral Company Investment Preferences"*. Mineral Investment Conditions in Selected Countries of the Asia – Pacific Region, United Nations ST/ESCAP/1197, 1992 pp330 – 342.

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[12] See generally, Bosson & Varon: *"The Mining Industry and Developing Countries".*
[11] *"Mining Renaissance in Africa"*, Engineering and Mining Journal, September 1998, V199 n9 p. NA32AA. "*Africa beckons Australian mining companies*", American Metals Market July 21 1998 V106 n138 p8 (1).

[13] See generally, James M Otto: *"A national Mineral policy as a regulatory tool"*. Resources Policy, Vol 23, No 1 / 2, pp 1 – 7. Also, J.M. Otto *"Mineral Policy, Legislation and Regulation*", UNCTAD 1998.

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[15] George J. Coakley, *"The Mineral Industry of Mozambique"*. USBM Yearbook 1997.

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[19] See generally: *"Strategy for African Mining"* – World Bank Technical Paper Number 181. Africa Technical Department Series.

[20] See J.M. Otto: *"A National Mineral Policy as a Regulatory Tool"*.

[21] *"Key issues of mining law: a brief comparative survey as a background study for the reform of mining law"*, Dr. Marian Kene Omalu and Thomas Waelde. Volume 3 – 13, the Journal, CEPMLP.

[22] Samuel Addy attributes the "spectacular reversal" in the performance of the Ghanaian mining sector to the adoption of the recommendations of the World Bank in the Minerals and Mining Law 1986. *"Ghana: The revival of the Mineral sector".* Samuel N. Addy. Resources Policy, vol 24, No. 4 p1

[23] Different theories abound on the definition of the concept of security of tenure. Bastida and Onorato propose a narrow definition: a reasonable legal entitlement to extraction rights after a successful exploration program, effectively a right to mine. Omalu, Zamora and Otto however provide a broader definition which envisages secured rights to title from exploration through discovery and development to the end of the productive life of the mine as long as the rights holder complies with the conditions for the grant of title. See generally, *" A review of the concept of security of mineral tenure: issues and challenges",* Elizabeth Bastida, The Journal, CEMCLP Vol 7 – 17.

[24] In *"Stability of Mineral Rights Under Ghanaian Law"*, E. Y. Benneh and F. S. Tsikata are of the view that the mandatory obligation of the Minister to grant a mining lease after a commercial discovery of minerals by a prospector is blunted by the discretion given to the Minister to determine the conditions upon which the lease will be granted. They argue that while the so – called discretion may be circumscribed by the administrative law principle of fairness, the full limits of such a discretion awaits judicial clarification in Ghana.

[25] In ***"Local participation in African Mining Projects – Trends for the New Century",*** Gerald Padmore describes the futility of Government participation in mining projects thus: *"the distribution of profits or dividends from a mineral project to equity holders may be circumscribed by the enterprise's need to re – invest in future capital needs or to set aside reserves for un –expected contingencies. Therefore, unlike the case of a profits tax imposed by a Government, the state has no assurance that a 10% interest in a project will yield 10% of the net profits of that project. Yet, in virtually every case, the state will directly or indirectly have reduced taxation [that] it might otherwise have received in order to obtain "free" equity in the venture. Furthermore, dividends or profits distribution paid out to a state equity holder in a mineral project will not qualify for offsetting tax credits under the laws of the foreign country from which the investment originates, because such distributions are not tax. The foreign investor may thus incur a further tax burden, and would prefer for this reason that the interest be taken as tax in order to qualify for any available tax credit in their home jurisdiction against foreign taxes paid".*

[27] E.T. Hunt Talmage III and Albert T. Chandler provide a review of Guinean mining law and regulatory practices prior to reforms in *"The Mining Law Regimes of Burkina Faso, Guinea, Thailand and Vietnam"*, International Bar Association Section on Energy and Natural Resources Law '94. The Guinean Government has however privatized its majority stake in the Frigua Bauxite to Alumna plant to a consortium of investors – Pechiney, Noranda, Alcan and Hydro Aluminum.

[28] Bosson & Varon: *"The Mining Industry and The Developing Countries"*. World Bank, 1997.

[29] The Mining Investment Promotion Project, a U$18 airborne geophysics and geological survey mapping program of the eastern part of Guinea was undertaken in 1998 with the assistance of the World Bank and the French Government. Mining Journal January 22, 1999.

[30] In *"Key Issues Of Mining Law: A Brief Survey As A Background Survey Of The Reform Of Mining Law",* Dr Marian Kene Omalu & Thomas Waelde at pp 11 – 13.

[31] See: *"Mining Taxation Issues for The Future".* Philip Andrews – Speed, Christopher D. Rogers. Resources Policy 25 (1999); *"Evaluating State Participation in Mineral Projects: Equity, Infrastructure and Taxation".* Phillip Daniel. Taxation of Mineral Enterprises, 1993; *"Structuring Mining Investment into Africa*". Bob Parsons & Stephane Brabant, 3rd African Mining Investment Symposium, 1997; *"Global Changes in Mining Laws, Agreements and Tax Systems*". James Otto Resources Policy, Vol. 24, 1998; *"Mineral Projects in Asian Countries. Geology, regulation, fiscal regimes and the environment*". Naito, Myoi, Otto, Smith and Kamitani. Resources Policy, Vol. 24, 1998; *"Strategy for African Mining*" – World Bank Technical Paper Number 181. Africa Technical Department Series.

[32] One of the exceptions is Zimbabwe, which has no royalty requirements and grants generous expenditure allowances against revenue. Consequently, there are over 4,000 mines in the country.

[33] Three global surveys, Johnson 1990, Otto 1992 and Clarke & Naito 1997, place fiscal systems amongst the top ranked decision criteria that investors consider before proceeding with investments in a country.

[34] If levied at uncompetitive rates, royalties can be a disincentive to investment, as those rates tend to reduce returns over the life of the mine. Depending on how they are defined or negotiated, royalties may overlook and not capture the true costs of mineral production. It is worthy to note that most developed mining provinces e.g. Australia and Canada tend to have higher corporate tax but do not impose royalties or request Government shareholding.

[35] A fiscal regime that provides for early return will reduce the risk profile of the project and thereby result in reduced risk premiums. Tax reliefs in the early years are a good mechanism for dealing with these risks. Depreciation can be a very useful incentive in the early years of production as operating expenses and capital expenditures can be recovered early. The critical issue is to determine what expenditures may qualify for relief. Another incentive is the Tax Holiday, which is a relief from the payment of corporate income tax on profits earned in the early years of production. The profits cushioned by the incentive can be applied to service project debt.

[36] Most countries are moving away from these sort of taxes. The effect of input and output taxes is that they reduce the competitiveness of both the minerals and the investor against investors in other countries that have eliminated these taxes. An example of a good fiscal regime for a project in Africa, albeit one specially negotiated, is the Moma Titanium project in Mozambique, which was in December 2000 granted Industrial Free Zone status for the processing of Titanium. This status entitles the project to exemptions from import and exports duties, value added tax and corporate tax. Further incentives are a 1% turnover tax which will become payable after 6 years. For the mining phase, a royalty of 3% is payable on the value of the titanium production. African Mining Bulletin #133 page 3. The Mozal Aluminium Smelter project was granted an industrial free zone tax status which entitled the project to a tax position calculated at 1% of turnover. The

project company will also benefit from a generous foreign exchange regime and other tax exemptions such as customs duties, sales and circulation tax. www.billiton.com/new/presentations/mozal.txt.

[37] *"Mining Renaissance in Africa"* Engineering and Mining Journal, September 1998 v199 n9.

[38] Sam Jonah, CEO Ashanti Goldfields Mar 7 2001. Also Ashanti Goldfields Company Limited Annual Report 2000.

[39] *"The Mineral Industry of South Africa"*, George J. Coakley and Thomas P. Dolley. USBM Yearbook 1997.

[40] The investigation undertaken on behalf of the Nigerian Government by a consortium led by Behre Dolbear, confirms the occurrence of high grade and potentially viable occurrences of gold, tantalite, lithium, beryllium, salt, kaolin and tar sands. See *Vol 1 Stage 1 Final Report, The Nigerian Minerals Appraisal and Monetisation Program*.

[41] However, expenditure all over the continent declined in 1998 – by 25% in the previous year to $494 million, due to maturing expenditure programs.

[42] *"Gold and Diamonds in Ghana – An Investment Brochure"*. Minerals Commission Ghana/UNDP – DTCD, 1988.

[43] Acquah Unctad/Com/41 1995.

[44] Mining Journal, October 2, 1998; January 22 1999.

[45] Supplement To The Mining Journal. January 22, 1999.

[46] The CIA World Factbook 2000 – Guinea]. Also: Mining Journal Guinea Supplement, March 2000.

[47] Mining Journal. Mozambique country supplement 2000 p3]. Also, African Statistical Yearbook 1997. United Nations Economic Commission for Africa.

[48] Source: Europa World Yearbook, 1999.

[49] Coakley, USBM 1997

[50] African Statistical Yearbook 1997. United Nations Economic Commission for Africa.

[51] Mining Review 2000

[52] USBM Yearbook, 1997.

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[53] Supplement to the Mining Journal, January 22, 1999. A fuller discussion of the Mozal project can be found in http//www.billiton.com/news/presentations/mozal/mozal.txt.

[54] In contrast, the siting of a $3 billion export - oriented Aluminum smelter in a densely forested and rural part of Southern Nigeria far away from port and harbor facilities compounded other complex problems arising from faulty project conception and design. Like several other white elephant projects in Nigeria, the Ikot Abasi Aluminum Smelter Project is a case study in how not to develop a natural resources project. Apart from the fact that Nigeria has no commercially exploitable deposits of bauxite, all alumina feedstock have to be imported for the production of aluminum. Other major problems confronting the beleaguered smelter project include the non – availability of subsidized natural gas to power an in – plant power plant, the threatened withdrawal of Reynolds Corporation USA the offtaker for the Aluminum and a cash liquidity crises. A rescue package in the form of a capital restructuring has been proposed by the shareholders with the support of a consortium of German Banks.

[55] In Ghana, small – scale mining gold mining activity was legalized in 1989. In addition, the Government established a special consolidated fund, the Mineral Development Fund, inter alia, to finance the activities of the regulatory institutions involved in the Mineral Development activity and support special mining and processing projects. 20% of every royalty payment paid by a mine is paid into this fund, half of which is then recycled to its host district for development of infrastructure projects. See ACQUAH, UNCTAD/COM/41 1995. Also, Fui Tsikata: *"The vicissitudes of mineral policy in Ghana".* Resources Policy, 1997 vol. 23, No. I / 2, pp 9 – 14 at pp1, 13.

[56] On the other hand, the efforts of the Nigerian Government in supporting the local development of kaolin and barytes to support local industries failed through uneven enforcement of an import ban and collusion between Government officials and powerful private sector interests.

[57] A case in point is Nigeria where hardly any significant mining investment has taken place in two decades despite efforts made in recent years to review the legal framework and establish some reforms in the sector. It is worthy of note that the country is yet to introduce a mining specific fiscal regime. Until this milestone is achieved, investments in the country will have to be undertaken under a specially negotiated mining agreement.

[58] Phillip Daniel, *"Economic Policy in Mineral Exporting Countries – What have we learnt", 1992.*

[59] More advanced mechanisms like the Infrastructural Tax Credit Scheme have been introduced in countries like Papua New Guinea for optimizing the benefits of mineral investment. The scheme mandates companies to apply a percentage of the gross revenues of a project towards infrastructural and social projects in host communities. These projects are chosen by communities in consultation with the companies subject to the approval of the Government. Once approved and completed, the project cost is treated as a tax credit. Another technique was applied in North West Alaska where an equity stake was reserved for the host community in the Red Dog mine. This participation entitled the community to a share of royalties and profits from the operations [SOURCE: PHILLIPS ANDREWS – SPEED/ CHRISTOPHER ROGERS].

[60] **SOURCES**: Data compiled from "*Global Mining Taxation Comparative Study*", 2nd Edn Otto, Barasch, Cordes, Institute for Global Resources Policy and Management, Colorado School of Mines, March 2000; *"Strategy for African Mining",* World Bank Technical Paper Series; "*Key Issues in Mining Law: A Comparative Survey as a Background Study for the Reform of Mining Law*", Dr. Marian Kene Omalu & Thomas Waelde; "*Mozambique: Mineral Resources Development and Investment Opportunities*", Ministry of Mineral Resources & Energy, Maputo 1995; "*The Mineral Industry of Guinea*", Phillip M. Mobbs, US Bureau of Mines Yearbook 1997; "*Guinea",* Supplement to the Mining Journal, 1997, 1998, 1999; *Guinean Mining Code 1995*; www. Mining-journal.com/GUINEA/file3html.

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