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THE ROLE OF FOREIGN DIRECT INVESTMENT (FDI) IN THE MINING SECTOR OF GHANA AND THE ENVIRONMENT.

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Introduction

Ghana has a variety of mineral resources and mining dates back well into the pre-colonial times. However, since the inception of the World Bank/IMF-led Mineral Sector Refund in Ghana in the mid 1980's there has been a significant increase in mining activities particularly gold. The attractive new mining sector policies created a huge foreign investor interest witnessing a massive foreign direct investment of over US\$2 billion into the mining sector over the last decade. The mining sector now contributes 41% of the country's foreign exchange and is the leading foreign exchange earner. Gold, the most important mineral, now earns over US\$600 million and making up almost 90% of the mineral output, has replaced cocoa as the leading foreign exchange earner. Further, Ghana is now the second largest producer of gold after South Africa in Africa.

However, in spite of these positive indicators, the role of the mining industry in the economic development of Ghana is a suspect. Despite the over US\$2 billion FDI attracted in mineral exploration and mine development during the last decade representing over 56% of total FDI flows to the country, (with the attendant increase in mineral export) the sector is yet to make any impact on the country's overall economy. The sectors contribution to the country's GDP is a meagre average of 1.5% since 1993. There is lack of linkage between the mineral sector and the rest of the internal economy. The massive investment has not been translated into significant increase in employment. Labour-intensive underground gold mines have been replaced by surface mining, which is capital intensive and employs relatively few people. Large-scale surface mines only employ about 20,000 workers whilst over twice this number are involved in small-scale mining. State mines, now privatised, aim to maximise profits and have retrenched more than 50% of their workforce many of whom have moved to the informal sector. There is hardly any value addition for gold in the country.

The "gains" from the sector in the form of increased investment are being achieved at significant environmental, health and social costs to the people, recording series of public outcry against the mining companies operating in Ghana who themselves are yet to openly acknowledge that their investments are inherently a major pollutant and a source of social conflicts around.

In the light of these, the positive image of mining, as disseminated by the World Bank/IMF, the Ghanaian government and the industry itself, has been challenged by environmental organisations in Ghana such as Friends of the Earth-Ghana. FOE-Ghana firmly believes that the mining sector does not hold the key to a sustainable Ghanaian economy, instead it is only providing short-term gains.

The Scope

This paper seeks to shed light on the impacts of FDI in Ghana's mining sector, the economy and the environment.

The paper seeks to examine:

- Economic policies and mining sector regulatory framework.
- FDI flows, their sources and increased large-scale surface mining activities.
- Impact of the mining sector FDI on economic growth and development of Ghana.
- Environmental and social impacts resulting from the mining investments in mining areas.

The Effect of Economic Policies on Mining in Ghana

In the resolve to reverse the economic decline which Ghana suffered between the late 70's and early 80's, the then PNDC government of Ghana, in April 1983 put in place a World Bank/IMF sponsored Structural Adjustment Programme, popularly called Economic Recovery Programme (ERP). The broad objectives of the Programme were to give incentives to producers, rehabilitate infrastructure and industry, curb inflation and promote sustained economic growth.

Export promotion and private investment were seen and emphasised as the essential means to achieving economic growth and employment creation. It was further argued that given the average size of Ghana's economy and the attendant limitations on domestic private savings the key to over all savings in order to enhance the export growth and private investments is through the foreign component by way of capital inflows including Foreign Direct Investment (FDI). FDI was also expected to lead the way to external markets, serve as the means of technology transfer and the key to employment generation and income distribution in general. In effect, it is perceived as a critical vehicle for economic growth and development.

Natural resource endowed Ghana, desirous of quick economic growth and development, under the pressure from her creditors such as the World Bank/IMF and other donors, turned to her commodity of precious minerals particularly gold and have changed the investment laws in the mineral sector to enhance their attractiveness for FDI flow into the mining industry. As a result the World Bank/IMF-led Mineral Sector Reform in 1986 was born which brought in significant FDI to the mining sector leading to a mining boom with increased national mineral output over the last decade.

Mining Sector Regulatory Framework

The mining sector received priority attention unrivaled by any other sector in the country under the ERP 1983. Apart from the general macro-economic policy reforms for the country, there were specific sector policy reforms that sought to boost investor interest in the mining sector, a new Mineral and Mining Law (PNDCL 153) of 1986 vests all minerals in the Government of Ghana on behalf of the people of Ghana. There were two addendum: Additional Profit Tax Law (PNDCL 122) and Minerals (Royalties) Regulations (LI 1349) in 1985 and 1987 respectively. Another law, Small

Scale Mining Law (PNDCL 218) was enacted in 1989 in a bid to give legal credence to small-scale artisanal mining in the country. Another law established Minerals Commission as a key institute to ensure one stop investment centre for mining. These laws with generous provision of tax incentives to foreign investors constitute the main legislation which wields jurisdiction over fiscal issues of the mining sector. These policies include tax breaks, flexible labour policy, unregulated repatriation of profits and cheap asset transfers. For example, corporate income tax, which stood at 50 – 55% in 1975, was reduced to 45% in 1986 and further scaled down to 35% in 1994. Initial capital allowance to enable investors recoup their capital expenditure was increased from 20% in the first year of production and 15% for subsequent annual allowances in 1986. Royalty rate, which stood at 6% of total value of mineral won in 1975, was reduced to 3% in 1987. Other duties such as Mineral duty 5%, import duty (5 – 35%) and Foreign Exchange Tax (33 – 75%) that prevailed and contributed significantly to government revenue from the sector until the reforms were all scrapped. In addition to these the mining companies were exemption from payment of customs import duties on plant, machinery equipment and accessories imported for use in mining. Their staff are also exempted from payment of income tax related to furnished accommodation at the mine site. Personal remittance quota for expatriate personnel was freed from any tax imposed for the transfer of external currency out of the country. Apart from these, a holder of a mining lease may be permitted by the Bank of Ghana to retain a minimum of 25% of the operators foreign exchange earnings in an external account for the purpose of acquiring equipment, spare parts, raw materials and for dividend payment and remittance in respect of goods for expatriate personnel, among others. The mineral sector and the state-owned gold mining companies were privatised.

Thus these generous foreign investor incentives provided and the deregulation of the Ghanaian economy in general, brought the significant FDI flows, particularly in the gold mining sector which has attracted the largest number of players.

FDI FLOWS, THEIR SOURCES AND THE MINERAL EXPORT GROWTH

FDI brought in large-scale surface mining activities

Over the past decade, there has been a gold rush in Ghana. The mineral sector has attracted over US\$2 billion investment in the form of FDI representing over 56%, total FDI to Ghana over the same period for mine expansion and rehabilitation, mineral exploration and mines development, with over 80% of the investment going to the gold mining sector. Over thirteen large-scale gold mines quickly got established, employing cyanide heap-leach processing method and capital intensive machinery with minimal labour requirement. The now privatised state-owned gold mining companies were also bought by the foreigners.

It is important to identify the major players, their geographic locations and sources of funding for the mining sector in order to appropriately identify advocacy targets and strategies. Foreign multinational companies coming from diverse national origins including Australian, Canadian, South African, UK and US own the mines and control an average of about 70% shares in these mines with the Ghana government holding 10% free share in each mine with an option to acquire additional 20%. In addition, some of the mining companies in the country have their investments promoted and guaranteed and protected by the World Bank. For examples, the IFC has been among the funding source for large-scale mining industries like Ashanti Goldfields Company expansion, Bogosso Gold Limited (BGL) and Ghana Australian Gold Ltd. (GAG). The table below shows the major mining companies in Ghana, the commodity mined and their ownership.

Major Mining Companies in Ghana

<i>Company</i>	<i>Commodity mined</i>	<i>Ownership</i>	<i>Mines</i>
Ashanti Gold Fields Company (AGC)	Gold	Lonhro. Anglo American (<i>Foreign</i>) & GG.	Obuasi Anyanfuri Bibiani
GoldFields (Gh.) Ltd. (GFL)	Gold	Goldfields S. Africa (<i>Foreign</i>) & GG	Tarkwa
Teberebie Gold-fields Ltd. (TGL)	Gold	Pioneer Corporation (<i>Foreign</i>)& GG	Teberebie (Tarkwa)
Ghana Australian Goldfields Ltd. (GAG)	Gold	AGC/Golden Shamrock. IFC. (<i>Foreign</i>) & GG	Iduapriem (Tarkwa)
Abosso Goldfields Ltd. (AGL)	Gold	Ranger Mineral (<i>Foreign</i>) & GG	Damang (Tarkwa)
Satellite Goldfields Ltd. (SGL)	Gold	<i>Foreign</i> & GG	Subri (Tarkwa)
Sankofa Gold Ltd.	Gold	(<i>Foreign</i>) Samax & GG	Prestea (Tarkwa)
Bogoso Gold Ltd.	Gold	Gencor. IFC (<i>Foreign</i>) & GG	Bogoso (Tarkwa)
Dunkwa Continental Goldfields Ltd.	Gold	Continental Construction Ltd. (<i>Foreign</i>) & GG	Dunkwa
Obenemase Gold Resources Ltd. (OGR)	Gold	The Resolute Group (<i>Foreign</i>)& GG	Obenemase
Goldfields Ltd.	Gold	State of China Others (<i>Foreign</i>)& GG	Nkawkaw
Amansie Resources	Gold	Resolute Group (<i>Foreign</i>) & GG	Amansie

In addition, seven gold projects are also at mine development stage.

While major foreign companies own the mines, most of the prospecting is undertaken by their junior partners, largely local Canadian, Australian and South African and also some investments from US, UK, Norway and China, among others. Over 230 local and foreign companies have been issued with

exploration licences mostly for gold. Dominant names in the exploration sector include BHP Minerals, Golden Star Resources, International Gold Resources, Gencor, Cluff Mining, Ashanti Exploration, Resolute, Anglo-American, Kenor and JCI.

Massive gold extraction and export from Ghana

The investments have resulted in significant increase in mineral extraction and its export particularly gold, out of the country and have led to a tremendous growth in the sector's contribution to the foreign exchange earnings of the economy. The total value of minerals exported as a percentage of total national exports increased from 20.3% in 1983 to 45.48% in 1995. The mineral sector is currently the largest foreign exchange earner contributing 41% of the country's foreign exchange earnings. Gold is the most important mineral accounting for about 90% of the total earnings of the mineral sector, however, a mere 10% of the value of gold comes to the country. Diamonds, manganese, and bauxite make up the majority of the remaining 10%. Gold production increased by 500% over the last 10 years with earnings of over US\$600 million. It (Gold) has replaced cocoa as Ghana's major foreign exchange earner. This phenomenal growth in the sector has occurred despite falling world gold prices. Currently, Ghana is the second largest producer of gold after South Africa.

The mining sector companies together offer about 20,000 direct jobs. Mining support industries and institutions such as assay laboratories, contract miners, explosive companies, restaurants, transport companies, security services, carting services have also sprang up and have also contributed some level of employment to Ghanaians.

IMPACTS OF THE MINING SECTOR FDI ON ECONOMIC GROWTH AND DEVELOPMENT OF GHANA

While the FDI role in the mining sector in the promotion of growth in Ghana's mineral export and foreign exchange is indisputable, however, the sector is yet to make any impact on the country's overall economy. Despite the massive foreign direct investment of over US\$2 billion in mineral exploration and mine development during the last decade, representing over 56% of total FDI flows into the country and again in spite of the fact that the mineral sector has become the largest foreign exchange earner and has overtaken cocoa as number one foreign exchange earner contributing over 41% of total annual foreign exchange earnings of the country, yet its contribution to the country's GDP is a meagre 1.5% since 1993, compared to GDP of 36% agriculture.

There is lack of linkage between the mining sector and the rest of the internal economy of Ghana. The input of capital into the sector has not been translated into significant increase in employment. Labour-intensive underground gold mines have been replaced by surface mining which is capital intensive and employs relatively few people. State-owned mines, now privatised, aim to maximise profits and have retrenched more than half their workforce, many of whom have moved to the informal sector. The large-scale mining companies only employ about 20,000 workers whilst over twice this number is involved in the registered small-scale mining of gold and diamonds. The gold bars are exported outside the country without any effort of secondary processing of the gold in Ghana thereby denying the country value-added and employment opportunities. As a result of the high the level of foreign exchange earnings allowed in offshore accounts of the various mining companies, a mere 10% of the value of gold of trickles back into the national economy despite its position as the leading foreign exchange producer. Meanwhile the mining activities from these companies are at the forefront of permanently frustrating agricultural activities which are the mainstay of the national economy, employing over 60%, national labour force and contributing 35% to GDP, with impunity.

Many Ghanaians are now expressing their worry that too many concessions are being given to investors in the sector. While the mining companies and to a lesser degree the central government reap the benefits, the mining communities particularly, enjoy little benefits but bear a greater part of the negative impacts.

SOME ENVIRONMENTAL AND SOCIAL ISSUES EMENATING FROM THE MINING INVESTMENT:THE CASE OF TARKWA AND OBUASI

In addition to AGC operations at Obuasi, currently, the Gold Mining investments are particularly heavy in the Western Region specially in the Tarkwa District. Nine out of the 14 large scale, mining companies are located in these areas with Tarkwa area accounting for eight of them. It is therefore considered appropriate to use some of the environmental and social problems of these places under this discussion.

The Environment

The zeal which support the policy reforms to attract foreign investments to the mining sector has not been marched with the desired environmental legislation to address the inevitable environmental impacts of mining. Ghana, which happens to be lauded as a pioneer in mining sector environmental management, national legislation making EIA and EMP obligatory was effectively introduced only at the close of 1994.

Major environmental problems have arisen in the mining communities brought about by the mining boom, resulting from massive vegetation clearance and land excavation, waste disposal, mineral processing and misuse of mining chemicals leading to decline in safe drinking water for humans, decline in air quality, loss of ecological biodiversity, decreasing forest cover and decreasing space for human waster disposal.

Atmospheric dust particles are the major air quality issue in the areas, and recent studies have shown elevated dust particulate matter exceeding EC, WHO and EPA (Ghana) levels in Tarkwa due to surface mining activities. This is believed to be responsible for the high level of respiratory disorders and skin ailments in the area.

Almost all villagers' water sources are polluted in Tarkwa area. The major pollutants are increased sediments, mining reagents and spent chemicals. Some local water supplies have lost taste, produce colour and odour. Contact with stream water widely result in skin rashes. Brownish silver-coat develops on top of waters collected from underground in the areas. Thus most of the streams and boreholes have been abandoned while people are compelled to drink water from other polluted sources. Vegetation clearance by the surface mines and mining of terraced areas exposed large areas of unconsolidated soils and waste rock dumps to rainfall based erosion and scour mobilising sediments in receiving waters. Spillages and leakages of hazardous cyanide solution and mineral processing waste waters have been sources of chemical pollution and contamination of nearby water bodies.

The following are concrete evidences of cyanide pollution in recent times:

- Teberebe Goldfields Tarkwa cyanide spill in June 1996 into the Angonaben stream, a main tributary of River Bonsa. The spillage affected nine villages along the banks of the river.

Considerable damage were done to fish, crops and farms due to the spillage. A survey at the affected villages revealed that some of the people have skin diseases attributed to the cyanide pollution although no medical evidence was available to confirm this.

- Ghana Goldfield Ltd. Tarkwa cyanide spill in October 2001 into River Asuman and Humi River which are the only sources of drinking water for Abekoase, Huniso and many other villages. Similarly, considerable damage to fish, crabs and birds were reported by the villagers with skin rashes.
- Satellite Goldfields Limited, Tarkwa cyanide spill on Nov. 2001 into a wetland at Kubekro.

The companies are yet to openly acknowledge the fact that their cyanide spills pose hazards to human health and aquatic life as well as crops in the affected communities.

At Obuasi, a study conducted by FOE – Ghana at the AGC’s mines in 1996 showed that Kwabrafo river and the Jim river at Akrofrom were heavily polluted with arsenic above WHO permissible levels.

Despite the existing regulations and guiding policies for the sector, environmental degradation resulting particularly from gold mining is on the increase. It is interesting to note that the Minister of Mines is empowered by the Mineral Law to suspend or cancel a mineral licence if a holder breaks the law. This could cater for a situation where the holder does not have “due regard” to the environment as provided in a section of the law. However, this never happens, even though environmental pollution from the mines is raging on.

Land degradation

The surface mining concessions have taken 70% of the total land in the Tarkwa area alone. Rich vegetation have been cleared and ridges have been targeted and mined from top to downwards through a series of benches. The degradation of large tracks of land by the large-scale surface mines constitute a major threat to agriculture in the communities and their economic survival. The huge scale of excavation have led to a complete change of land form suitable for agricultural and any other livelihood activity. Huge craters have been formed and hillsides and parts of mountains removed, affecting the sources of many rivers and streams and also causing deforestation. On the other hand, heaps of mine waste have been dumped and often occupy large amounts of land and disfigure the landscape with attendant massive rainfall based water pollution, given the location of Ghana’s mining industry in the South West part of the country where annual rainfall exceeds 1500mm. Surprisingly, mining companies only pay lip service to rehabilitation of lands they have degraded as it ought to be under Ghana’s EIA requirements.

Mining boom encroaches on forests and threaten Ghana’s rich ecological biodiversity

Known forest reserve of rich biodiversity have been concessioned and are being mined by the large scale companies. A case in point is the allocation of substantial parts of biodiversity rich and outstanding botanical hotspots Nueng and the Bonsa forest reserves to GAG, AGL and SGL in Tarkwa where large-scale surface mining is going on currently. The displacement of the small-scale operators by the large mines operators by the large mines from their former areas of operations coupled with unemployment have led the former to find alternative grounds within the Bonsa, Nueng and Nusem forest reserves and with the indiscriminate mining practices of the small miners

have resulted in gross abuse of the forest by the miners, increasing the threat to forests and the rich ecological biodiversity.

According to the District Forestry Department at Tarkwa the removal of the forest cover is rapidly drying up the rivers and streams in the area and causing the extinction of river hosted animal and plant species. Certain flora and fauna species such as snails, mushrooms and medicinal plant on which the local people depended for their livelihoods have also become drastically reduced or extinct leading to impoverishment of the people. Meanwhile, the powerful mining industry which is already operating in designated forest reserves, are currently calling on the government to release a further 2% of the country's endangered rain forest for mining.

Despite the EIA stating how the companies will employ modern technology that should apparently be environmentally friendly, this is often not the case. The biggest constraint has been monitoring and supervision on the part of the relevant government agencies. The departments do not have adequate personnel to police the environment from these aggressive companies whose major target is profit rather than environmental and social responsibility. There is therefore, a growing perception of collusion between the state and mining companies in their drive for investment, with little sensitivity to the environment.

Struggles for survival by the mining communities and their human right abuse

The mining boom over the years has relegated agricultural activities hitherto a major source of livelihood for Tarkwa area to the background. Lands that were previously used for farming and those that could be so used have now been swallowed by the mining concessions. Consequently, food production have decreased considerably, creating a very high cost of living situation in the area. The taking over of nearly all the prospective land for gold by the large-scale mines, has deprived the indigenous miners including women who have long been operating on certain parts of these concessions on small scale of any source of livelihood. The struggle by the small scale miners to co-exist with the large companies have been a source of major conflict and tension in the industry and has often been resulting in brutal confrontations between the local people and the companies. The whole situation is a far cry from what pertained in the past when surrounding populations derived substantial benefits from mining operations.

Cases of human rights violations, arbitrary arrests and physical molestations are rampant in the area usually administered by armed men on behalf of mining companies. For example in August 1996 and May 1998, two farming villages Nkwantakrom and Atuabo were respectively demolished by some armed men to pave way for surface mining. Between 1990 and 1998, a total of 14 communities with a population of over 30,000 were displaced in Tarkwa area alone. These communities are condemn to live within the periphery of such mines, amidst the nuisance of mining. In addition, they are constrained to very limited alternative means of livelihood. Meanwhile compensations paid by the mining companies for the lands and crops destroyed often do not meet the expectation of the affected people.

Poor health status in mining communities

The health status are poor in the mining communities today in Ghana. Biostatistics obtained from Obuasi hospital in a survey by Friends of the Earth – Ghana (FOE – Ghana) indicated a high prevalence of upper respiratory tract infection (URTI) in the area which medical experts attributed to the mining activities and associated pollution. Clinical symptoms akin to arsenic poisoning have been observed in patients in AGC hospital at Obuasi and have been associated with aerial pollution

from mineral processing by the AGC. In the Tarkwa area, with the inception of mining investment, mining impact related diseases such as malaria, diarrhoea, upper respiratory tract infections, skin disease, acute conjunctivitis and accidents form the top ten diseases in the area according to Biostatistics, obtained by FOE – Ghana in Korle-Bu Hospital in a survey in 2001. The area has the highest incidence of malaria in the Western Region and the country as a whole. Skin rashes are prevalent particularly among communities living along rivers and streams which routinely receive leaked cyanide waste waters and other mining wastes within concessions.

CONCLUSION

There has been an upsurge in mining activity in Ghana as a response to the new foreign investor attractive mineral codes and the massive FDI inflow into the sector in the last decade. However, the economic benefits expected from this mining boom would remain a mirage and would largely be a gloom to the ordinary population if there are no policy initiatives to ensure effective contribution of the sector to the national economy with minimal environmental consequences.

Such an objective can only be achieved if the mining industry is effectively linked to the other sectors to ensure a significant contribution of the sector to national GDP. Thus the country should deliberately promote mineral processing through the granting of incentives to the secondary processing sector of the mineral industry.

On the minimisation of the environmental impacts of the renewed mining, a strong political will and transparency is required from the government. Detailed regulations which should cover all anticipated impacts on the environment, such as standards for water, air and noise emissions, and also clearly specify the environmentally critical areas where mining is prohibited such as wetlands, rivers and areas of rich biodiversity among others are therefore needed. The Environmental Protection Agency (EPA) and other mining support institutions should be well equipped in terms of economic and human resources to carry out their monitoring role.

To ensure equity in the mining sector, additional laws are required to clarify and involve District Assemblies and the local communities likely to be directly impacted by mining projects in impact studies, implementation and enforcement of mining laws.

Efforts must be made to encourage the co-existence of both small-scale miners and the large scale companies, since the small-scale indigenous mining sector is increasingly becoming an important segment of the mining industry in the country.

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