

## TABLE OF CONTENTS

1.0 BACKGROUND .....	1
2.0 BROAD INDUSTRY OVERVIEW .....	1
3.0 POLICY AND LEGISLATION .....	4
3.1 Policy Initiatives .....	4
3.2 Mineral Legislation .....	6
3.3 Fiscal Policies for Investments and Counteracting Market Fluctuations.....	13
3.4 Regulations and Mechanisms for Compliance and Monitoring .....	15
3.5 Guidelines for Artisanal and Small Scale Miners (ASM) .....	18
3.6 Public/Stakeholders Consultation and Participation in Decision-Making.....	19
Related to Mining .....	19
3.7 Public Governance and Transparency in the Mining Sector .....	21
4.0 MINING BEST PRACTICES .....	23
4.1 Environmental Impact Assessment (EIA) and Monitoring of all Phases of Mining Operation (exploration, project development, mine operation and mine closure) .....	23
4.2 Public-Private Partnership (PPP) for Sustainable Mining .....	25
4.3 Emergency Response Plans and Preparedness at the Local level.....	26
4.4 Risk Assessment of Mines and Mining Activities.....	27
4.5 Rehabilitation of Affected Communities and Life Supporting Ecosystems, including mine site decommissioning.....	28
4.6 Technological, Institutional and Social Initiatives for Protecting the Health of .....	29
Mine workers .....	29
4.7 Mine Closure Planning .....	31
4.8 Facilitation of Sustainable Development through Linkages with other Sectors of the Economy .....	31
4.9 Support from and Collaboration with Development Partners.....	31
5.0 CONCLUSION.....	32

# A REPORT ON GHANA'S MINING SECTOR FOR THE 18<sup>TH</sup> SESSION OF THE UN COMMISSION ON SUSTAINABLE DEVELOPMENT

## **1.0 BACKGROUND**

The 18<sup>th</sup> Session of the United Nations Commission on Sustainable Development (UNCSD) in May 2010 will be reviewing progress made towards the achievement of commitments made in Sustainable Development initiatives such as Agenda 21, the Programme for the Further Implementation of Agenda 21, and paragraph 46 of the Johannesburg Plan of Implementation, in respect of mining, among a number of thematic areas. Some of the key commitments in the initiatives include: environmental, economic, health and social impacts and benefits of mining; transparent and accountable regulatory frameworks; participation of stakeholders; and financial, technical and capacity-building support.

This report is therefore meant to, as part of Ghana's country paper to UNCSD 2010, document the progress of Ghana's mining sector towards promoting sustainable development through implementation of priorities under the initiatives, while also indicating key challenges to greater achievement as well as strategies for better performance.

## **2.0 BROAD INDUSTRY OVERVIEW**

Ghana is endowed with substantial mineral resources and has a well-established mining sector, which has grown considerably in recent years to represent an important pillar of the Ghanaian economy. This is as a result of the pursuit of generally liberal macro economic policies and specifically for the mineral and mining sector institution of comprehensive and attractive legal, fiscal and institutional frameworks by Government. These measures have helped in no small way to attract investments into the economy at large but particularly the mining industry, especially the gold sector.

Currently, seven (7) large scale companies are producing gold, while one (1) each are producing bauxite and Manganese. Also, over 650 registered small scale mining groups are engaged in the mining of gold, diamonds and industrial minerals.

The mining sector maintained an average contribution of 5.5% to Gross Domestic Product (GDP) and 42% of total merchandise export during 2000 – 2008. As shown in Table 1 the sector’s contribution to exports rose from 36.26% in year 2000 to 45% in 2008, being the single largest contributor from 1991, excepting 2004 alone when it was overtaken by the cocoa sector.

Table 1: Total Merchandise Exports (US\$) by Mining Sector

<b>EXPORTS</b>	<b>Unit</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>Gold</b>	US\$' Mill.	702	618	689	830	840	946	1,367	1,278	2,246
<b>Diamonds</b>	US\$' Mill.	12	21	21	23	26	36	31	28	25
<b>Bauxite</b>	US\$' Mill.	13	16	15	11	9	16	23	20	22
<b>Manganese</b>	US\$' Mill.	29	37	29	29	29	37	41	33	53
<b>Total Mineral Exports</b>	US\$' Mill.	<b>756</b>	<b>691</b>	<b>754</b>	<b>894</b>	<b>905</b>	<b>1,035</b>	<b>1,462</b>	<b>1,358</b>	<b>2,346</b>
<b>TOTAL EXPORTS</b>	US\$' Mill.	<b>1,936</b>	<b>1,867</b>	<b>2,064</b>	<b>2,297</b>	<b>2,704</b>	<b>2,802</b>	<b>3,365</b>	<b>3,241</b>	<b>5,181.9</b>
<b>All Mineral Exports/TOTAL EXPORTS</b>		39%	37%	37%	39%	33%	37%	43%	42%	45%

Ghana's gold exports totalled US\$2.25 billion in 2008, up from US\$1.3 billion in the previous year. Total merchandise exports from the mining sector amounted to US\$2.35 billion in 2008.

It is also worth mentioning that the Small Scale Mining (SSM) sub sector contributes on the average (from 2000 to 2008) about 12% of the total gold produced and 89%<sup>1</sup> of diamonds production. It is estimated that between 500,000 to one million people are involved directly in SSM and another 500,000 to one million people benefit directly or indirectly from this activity.

The industry also contributes to the Ghanaian economy through the payment of corporate taxes, royalties and income taxes on both salaries & wages of employees, and dividends declared. Between 2000 and 2008, the mining sector contributed an average annual 11% of Government Revenues collected by Internal Revenue Service in the form of corporate tax, PAYE and royalties. Total mining sector taxes amounted to US\$544,904,517.13 for the period.

The sector continued to be the single largest contributor of royalty, accounting for an average of about 98% of the total royalties paid to government over the past 10 years. Additionally, through the Minerals Development Fund, part of royalties paid to central government is recycled back to the mining communities to be used for general development projects and for addressing some of the degradation the environs of mines suffer.

In the area of employment, the sector as at the end of the year 2008 provided 24,000 jobs for Ghanaians in the formal sector; that is, direct jobs with the operating mines and mine support service companies. Small-scale mines also generated about 500,000 jobs across the nation. Some indirect jobs were also created, as a result of the existence of the mining companies. These will increase drastically in the ensuing years.

---

<sup>1</sup> This figure became 100% from 2008.

### **3.0 POLICY AND LEGISLATION**

#### **3.1 Policy Initiatives**

The focus of policies on mining Government has adopted is to ensure that the activity contributes its quota to the development of the country. In recent times policy objectives have been in respect of:

- Ensuring that Ghana's mineral endowment is managed on an economically, socially and environmentally sustainable basis and that there is an equitable sharing of the financial and developmental benefits of mining between investors and relevant Ghanaian stakeholders.
- Encouraging private sector participation - local and foreign - in the exploration for and commercial exploitation of mineral resources, in consonance with the Government's commitment to a free-market enterprise economy. The Government recognizes that private sector investors need to be able to operate profitably, be internationally competitive and satisfy their shareholder and employee expectations. To this end, the Government has been working at establishing and maintaining:
  - a conducive macro-economic environment for mining investment;
  - a stable regulatory environment that provides for the transparent and even handed treatment of investors;
  - a stable, competitive and fair fiscal regime.
- Achieving a socially acceptable balance between mining and the physical and human environment and, ensuring that internationally accepted standards of health, safety and environmental protection are observed by all participants in the mining sector.
- Encouraging and facilitating orderly and efficient development of small-scale mining in recognition of the fact that the considerable potential for small scale minerals exploitation can provide additional or alternative livelihoods in rural areas and foster the development of Ghanaian mining skills, entrepreneurship and capital.

- Empowering Ghanaians to become professional miners, mine managers and owners by maximizing opportunities for minerals-related education, training, career development and other support
- Promoting and enforcing respect for employee, gender and human rights in mining.
- Encouraging mining companies to develop a participatory and collaborative approach to mine planning, development and decommissioning, taking into account the needs of local communities and thereby fulfill their role as socially responsible corporate citizens.
- Developing streamlined and effective institutional arrangements for the mining sector, together with adequate capacity to promote, monitor and regulate mining operations
- Ensuring the application of modern principles of transparency and accountability in the administration of mining operations and facilitation of community participation in such processes. To this end, the Government recognizes the need for and will see to the proper coordination between government departments and agencies, and dissemination of information to the public on all aspects of mining as a basis for informed participation.
- Facilitating the capacity building of Ghanaian mining authorities to gather, analyse and disseminate geo-data necessary for the promotion of minerals sector investment.
- Cooperating with regional and international partners, notably by endorsing and implementing principles that are established in regional and international conventions and other instruments and undertakings that are relevant to mining and to which Ghana is a party or signatory.
- Fostering the development of a mining sector that is integrated with other sectors of the national economy and which will contribute to the economic empowerment of Ghanaians by generating opportunities for local entrepreneurship, increased demand for local goods and services, and creating employment for Ghanaians.

### 3.2 Mineral Legislation

Between 1986 and 2006, the Mineral and Mining Law 1986, PNDCL.153 was the basic mining legislation in Ghana. While it was regarded as a trailblazer in terms of mining legislation in sub-saharan Africa, changes in the international mining scene necessitated its revision. After a protracted review from the early 2000s, the current Minerals and Mining Act, Act 703 of 2006 became the governing legislation for Ghana's minerals and mining sector.

A key feature of the process for drafting and passing this Act was the participation of relevant stakeholders, including mining sector regulators, Civil Society Organisations (CSOs), Non-governmental Organisations (NGOs), traditional authorities, local government authorities, labour unions, mining investors, academia and government revenue agencies.

The new Act was intended to reflect contemporary trends in minerals and mining legislation and thereby position Ghana to continue to attract and retain mining investment. Table 2 compares Act 703 with the old law, PNDCL.153.

Table 2: A Comparative Overview of PNDCL 153 vrs Act 703

SUBJECT		OLD LAW (PNDCL 153)	NEW LAW (ACT 703)
1	Ownership of minerals	Existed under the old law	Under section 1 of Act 703, all minerals are vested in the President in trust for the people of Ghana. The Minister of Lands and Natural Resources ("the Minister"), on behalf of the President, is therefore mandated under the Act to grant, revoke, suspend or renew mineral rights, on the advice and recommendation of the Minerals Commission <sup>2</sup> .

<sup>2</sup> Sections 5 & 100(2) of Act 703

SUBJECT		OLD LAW (PNDCL 153)	NEW LAW (ACT 703)
2	Equitable application of the law	Existed under the old law, but limited application	Enhanced under the new Act Act 703 is applied equitably to all investors, whether Ghanaian or a foreigner, except in the case of (i) small scale mining <sup>3</sup> , and (ii) restricted mineral operations, which are reserved for Ghanaians. In the case of the latter, foreigners can participate if their proposed investment is at least US\$10million <sup>4</sup> .
3	Application for mineral right	The Minister was <u>not</u> required to give any reasons for refusing an application for a mineral right	The Minister is required to give written reasons where an application is not granted or the application is granted over only a part of the land applied for. [s.5]
4	Cadastral system	Did <u>not</u> exist under the old law. Mineral concessions were limited in size only (in sq km) and could be of any shape.	A method by which the country is divided into geographical blocks of 21 hectares each. Applications for mineral rights can be made in multiples of blocks which should be contiguous. Fractions of blocks are not acceptable except for blocks part of which lie outside the country, which are considered as full blocks.[s.8]
5	Grant of mineral rights	No limits on duration of application process.	Upon receipt of a mineral right application, the Minerals Commission must submit its recommendations to the Minister within <u>90 days</u> of receipt of the application.[S.12]
6	Records of mineral right holders	Records were kept by the Minister, and were open to public inspection upon the payment of a fee. No records were treated as confidential.	Mineral right holders are to furnish the Minerals Commission with reports/records on mineral operations and geological information, which shall be treated as confidential as long as the holder retains the mineral right. The information may however be divulged with the prior written consent of the holder. [ss. 19, 20, 21].

<sup>3</sup> Section 83

<sup>4</sup> Section 79

SUBJECT		OLD LAW (PNDCL 153)	NEW LAW (ACT 703)
7	Royalties	Royalties rates were between 3% - 12% of the total revenue of minerals obtained applicable to an operating ratio as stated provided under the Minerals (Royalties) Regulations, 1987 (L.I. 1349)	The upper limit has been reduced to 6%. Thus royalties are chargeable between 3% - 6% of the total revenue of minerals obtained.
8	Dispute resolution	Provision existed under the old law, but was restricted to fiscal issues.	Similar provision exists under the new law. It is applicable to any dispute under the Act. Disputing parties may settle disputes through mutual discussion, and arbitration. Foreign holders may also resort to international arbitration avenues. [s. 27]
9	Capitalisation of expenditure	Existed under the old law	The holder of a mining lease is entitled to the capitalisation of expenditure on reconnaissance and prospecting where the holder starts development of a commercial find.[s.28]
10	Additional benefits	Existed under the old law	A mineral right holder may be granted the following: exemption from customs duty in respect of plant, machinery, etc; exemption of staff from payment of income tax on mine site accommodation; immigration quota in respect of expatriate personnel; personal remittance quota for expatriate personnel free from certain taxes.[s. 29]
11	Transferability of capital	Existed under the old law.	Holder may retain foreign exchange earnings from mining operations for use in acquiring spare parts, and other mining inputs. The percentage to be retained to be agreed by the Minister and the Minister of Finance. [s.30]
12	Amendment of prospecting programme	A holder of a prospecting licence seeking to amend its work programme was required to seek the Minister's approval.	The holder is only required to notify the Minister of an amendment to the prospecting programme. [s.36]

SUBJECT		OLD LAW (PNDCL 153)	NEW LAW (ACT 703)
13	Grant of mining lease	It was not clear that once a holder of a PL had expended so much on exploration, a ML could be granted	A holder of an RL or a PL who applies for a mining lease and has materially complied with the obligations under the law, may be recommended for the grant of a mining lease within a specified period of time. [s. 39(2)]
14	Application for mining lease by any other person	No such provision	A person, not necessarily a holder of an RL or PL, may apply for a mining lease. [s.40]
15	Government participation in mining lease	Government acquired a 10% free carried interest in all mineral rights, with the option to acquire a further 20% (or 45% in the case of salt)	Government's free carried interest is now limited to 10%, and with respect to a mining lease only. Any further participation is to be on terms agreed with the holder. [s. 43]

	<b>SUBJECT</b>	<b>OLD LAW (PNDCL 153)</b>	<b>NEW LAW (ACT 703)</b>
16	Stability Agreement	No such provision	This replaced the former Deed of Warranty executed between the Government and mining companies. It seeks to protect the holder of a mineral right for a period of 15 years, from any adverse effects of future changes in law that are capable of imposing huge financial burden on the holder. [s. 48]
17	Development Agreement	No such provision	The Minister may enter into a Development Agreement (DA) with the holder of /applicant for a mining lease if the investment exceeds US\$ 500million. The DA may contain terms of a stability agreement, in addition to terms that may vary the mining law, (especially the fiscal regime). [s.49]
18	Vesting of property on termination of mineral right	Upon termination of a mining lease, all immovable assets of the holder were vested in the Republic. Movable assets which are fully depreciated for tax purposes were vested in the Republic too. Movable assets not fully depreciated were first offered to the Republic on sale, before being disposed of by the holder	Movable and immovable assets are collectively described as "plant"; and a holder may remove the plant upon termination of the mining lease, provided the holder or a person deriving title through him uses it in another relevant mining activity in the country. Otherwise, the plant vests in the Republic. [ s.70]
19	Compensation	Limited provision on compensation.	A more comprehensive compensation provision. Compensation issues have been clarified and simplified. Alternate settlement has been included as compensation to land owners. Compensation is also to be paid for

			deprivation of the use/benefit of surface rights, etc.;
			The compensation principles are set out in the law, and the landowner may apply to the High Court for determination of compensation, where the parties disagree on the terms of the package. [ss. 72 - 75]
20	Industrial minerals	Restricted to only Ghanaians. Non-citizens may however be considered by the Minister.	Application for industrial minerals is the same as for other minerals. Non-citizens may also apply for a mineral right in respect of industrial minerals where the proposed investment is not less than US\$10million.[s.76 - 80]
21	Preference for local products and employment of Ghanaians	Existed under old law	Requires a holder of a mineral right to give preference to materials and products of Ghanaian origin, and to the employment of Ghanaians to the maximum extent possible.

Also section 110 of Act 703 clearly indicates that subsidiary legislation is to be enacted to expand and give full meaning to a number of provisions of the Act - Act 703. The work on drafting the regulation has advanced significantly and it is hoped to be laid in Parliament by year end 2009.

The key features of the Act are:

- I. **All minerals are owned by the state** - The Minister of Lands and Natural Resources (MLNR) is exclusively mandated to grant mineral rights on the advise of a technical committee constituted at the Minerals Commission.
- II. **Application of Mineral Legislation** - The legislation is applied equally to investors, Ghanaians and foreigners alike, except for the provisions relating to: small-scale mining, which is reserved for Ghanaians and (b) restricted

mining rights, which are reserved for Ghanaians, but in which foreigners can participate where the investment involved is not less than US\$10 million.

**III. Governance Improvement** – The Act stipulates definite periods within which the Minerals Commission and the Minister responsible for Mines must act in the grant or otherwise of applications in respect of mineral rights<sup>5</sup>. The Minister is required to give written reasons for not acting within the stipulated period<sup>6</sup>. Similarly, the Minister’s discretion is limited under Act 703. For instance, the Minister is required to provide written reasons for refusing applications. Currently, also dispute resolution mechanisms are available to applicants or holders in respect of any dispute that arises under the Act<sup>7</sup>.

**IV. Brief Description of Cadastre System** – This is a method by which the country is divided into geographical blocks of 21 hectares each. Applications for mineral rights can be made in multiples of blocks which should be contiguous. Fractions of blocks are not acceptable except for blocks part of which lie outside the country, which are considered full blocks.

## **V. Types of Mineral Rights**

A summary of the types of mineral rights that can be granted under Act 703 are indicated below:

---

<sup>5</sup> Sections 12 and 13

<sup>6</sup> Sections 5(3) & 14(2)

<sup>7</sup> Section 27

Table 3: Summary of types of mineral rights

<b>Licence Type</b>	<b>Reconnaissance Licence (RL)</b>	<b>Prospecting Licence (PL)</b>	<b>Mining (ML)</b>	<b>Lease</b>	<b>Restricted Mineral Right</b>	<b>Small Scale Mining<sup>8</sup></b>
<b>Purpose</b>	Regional exploration not including drilling & excavation	Search for minerals and evaluation	Extraction of minerals		Building and Industrial minerals	Extraction of minerals
<b>Area</b>	Blocks of 21 hectares, not exceeding 5,000 contiguous blocks	Not exceeding 750 contiguous blocks	Not exceeding 300 contiguous blocks		Provisions relating to minerals rights apply	In accordance with the number of blocks prescribed
<b>Duration</b>	12 months renewable	3 years renewable with reduction of area to not less than half.	30 years or less depending on mine life. Renewable		15 years or less depending on mine life. Renewable	5 years, renewable

## VI. Compensation Principles

The Act establishes principles<sup>9</sup> to be taken into account in the payment of compensation, including: (i) deprivation of the use of the natural surface of the land; (ii) loss of or damage to immovable property; (iii) for land under cultivation, loss of earnings or sustenance suffered by owner or lawful occupier; and (iv) loss of expected income depending on the nature of crops and their life expectancy.

### 3.3 Fiscal Policies for Investments and Counteracting Market Fluctuations

The fiscal regime as summarized in Table 4 is partly provided for under Act 703 and partly under the Internal Revenue Act 2000, (Act 592), as amended.

<sup>8</sup> Granted to Ghanaians only, but foreigners could participate by way of Service Companies

<sup>9</sup> Section 74

Table 4: Summary of Fiscal Regime:

IMPOSTS/BENEFITS	PROVISION
<b>Mineral Royalty Rates</b> Royalty Base	3% - 6%, prescribed in regulations. Based on gross market value of minerals sold
<b>Application Fees</b>	As prescribed in the regulations
<b>Surface Rentals</b> Annual Ground Rent	Payable to landowner as prescribed
Annual Mineral Rights Fees	Payable to Minerals Commission as prescribed
Income Tax: Tax Rate Capital Allowances:  Allowable Losses:	25% now, prescribed in the law and 22% for listed companies on the GSE. 75% CAPEX in year of investment, then 50% on declining basis; +5% investment allowance 5 years Carry Forward
Dividend Withholding Tax	8%
Import Duty	Plant, machinery, equipment specifically and exclusively for mining operations exempted
Value Added Tax	Mining Stage - Refundable Exploration Stage - Capitalised on making find

The main component of the minerals and mining sector's fiscal policy intended to counteract market fluctuation, through automatic stabilization, is the royalty regime viz:

- Royalties rates vary between 3 - 6% of the gross value of minerals produced. The variation is related to the "operating ratio" and is designed to prevent royalties becoming too onerous for marginal mines or during times of low profitability while reciprocally other mining projects get to contribute at a higher rate or when times are good, especially when windfall profits are made.

### 3.4 Regulations and Mechanisms for Compliance and Monitoring

Ghana's Mineral and Mining Act, 2006 (Act 703), divides mining operations into two main classes viz; Large Scale (LS) and Small Scale (SS) mining.

The Act applies to all minerals and mining activities. However sections 81 to 99 apply specifically to the Small Scale Mining sub sector which is discussed in section 3.5. Small Scale Mining as defined under Act includes artisanal operations.

Regulations and mechanisms for monitoring and ensuring compliance involves, in the main, the roles performed by a number of regulatory agencies; reporting requirements; and monitoring activities, along with sanctions from infractions.

The key regulatory institutions are:

#### a. Minerals Commission

The Commission is responsible for the regulation and management of the development of the mineral resources of Ghana and the co-ordination and implementation of policies related to mining. The Commission serves as the technical advisory agency to Government. In addition to the broad supervisory role of the Commission, the Inspectorate Division of the Commission is given responsibility for enforcing the mining regulations.

#### b. Inspectorate Division

The Inspectorate Division (ID) of the Minerals Commission was established under section 101 of Act 703. The ID is responsible for enforcing the Mining Regulations, 1970 (L.I. 665) or its amendments which ensures health and safety in mining operations. Upfront, unless the ID is satisfied with a proposed mining project and issues an operating permit, a mineral right holder cannot begin any mineral activities. The head of the ID, the Chief Inspector of Mines, is mandated under Act 703 to inspect all aspects of any mining operations for compliance, including whether the nuisance is being

created handling to ensure that the proposed mineral operations would be or is being carried out safely.

#### c. Forestry Commission

The Forestry Commission (FC) was re-established under the Forestry Commission Act, 1999 (Act 571). The FC is responsible for the regulation of the utilisation of forest and wildlife resources, the conservation and management of those resources and the co-ordination of policies related to them. With respect to mining, section 18 of Act 703 provides that holder of a mineral right shall obtain a permit from the Forestry Commission before undertaking any mineral operations.

A liaison committee comprising the FC, Ministry of Lands and Natural Resources, Minerals Commission, Environmental Protection Agency and the District Assembly monitors the activities of mineral right holders who are granted a permit in a forest reserve. The holder is required to submit reports to the committee.

Persons who operate outside this framework could lose any mineral rights they have and also be sanctioned appropriately.

#### d. Water Resources Commission

The Water Resources Commission (WRC) was established under the Water Resources Commission Act, 1996 (Act 522). The WRC is responsible for the regulation and management of the utilisation of water resources, and for the co-ordination of any policy in relation to them. The WRC is therefore mandated to grant water rights. Under section 17 of Act 703, a holder of a mineral right may, for purposes of or ancillary to the mineral operations, obtain, divert, impound, convey and use water from a river, stream, underground reservoir or watercourse within the land the subject of the mineral right subject to obtaining the requisite approvals or licences under Act 522.

The Water Use Regulations, 2001 (L.I. 1692) was passed by the WRC to regulate and monitor the use of water. Under the WRC Act, the Commission also has the power to

enter upon any land to inspect works constructed or under construction there and to ascertain the amount of water abstracted or capable of being abstracted by means of the works. Both Act 522 and L.I. 1692 prescribe sanctions for breaches.

e. Environmental Protection Agency

The Environmental Protection Agency (EPA) was established under the Environmental Protection Agency Act, 1994 (Act 490). The EPA is responsible for among other things, the enforcement of environmental regulations. In accordance with section 18 of Act 703 and the Environmental Assessment Regulations, 1999 (L.I. 1652) of the EPA, a holder of a mineral right requires an environmental permit from the EPA in order to undertake any mineral operations.

The main legal framework used by the EPA for regulating and monitoring mineral operations is the Environmental Assessment Regulations, 1999 (L.I. 1652). The Regulations requires the applicant to prepare a scoping report setting out the scope or extent of the environmental impact assessment to be carried out by the applicant, and includes a draft terms of reference, which indicates the essential issues to be addressed in the environmental impact statement (“EIS”). The EIS is subject to a public hearing and review by the EPA before a permit is granted. Mineral right holders are also required to post a reclamation bond based on approved work plan for reclamation.

A holder of a mineral right granted an environmental permit is required to submit an annual environmental report in respect of the mineral operations to the Agency. The EPA undertakes monitoring activities regularly to ensure that mineral right holders are compliant with the terms of the environmental permit and the environmental laws generally.

With respect to sanctions, the EPA is empowered to suspend, cancel or revoke an environmental permit or certificate and/or even prosecute offenders when there is a breach.

#### f. Lands Commission

The Lands Commission is the body charged with the responsibility to ensure the judicious management of the country's land. The Land Valuation Board, a division of the Commission which is involved in the valuation of land and other properties assist the mining sector in issues relating to compensation.

### 3.5 Guidelines for Artisanal and Small Scale Miners (ASM)<sup>10</sup>

As indicated in Section 3.4 of this report, Sections 81 to 99 of the Minerals and Mining Act 2006, Act 703 apply to small scale mining operations only. Some of the key aspects of ASM operations dealt with by this part of the Act include:

- Designation of areas for; qualification for; and licencing for small scale mining
- Operations of small scale miners and conditions attached to them;

In terms of the regulatory structure, the Ministry of Lands and Natural Resources through the Minerals Commission has established seven (7) District Offices located at Tarkwa, Dunkwa-on-Offin, Bibiani, Asankrangwa, Assin Fosu, Akim Oda and Bolgatanga, which are responsible for:

#### (i) Licensing and Technical Support

These Offices are mandated to promote the regularization, education and awareness creation in illegal mining communities, development of small scale mining, as well as monitoring of the activities of small scale miners, in their respective areas of operations.

---

<sup>10</sup> ASM has been practiced in Ghana long before the advent of Ghana's colonial masters. The miners used rudimentary tools in the exploitation of the minerals, especially gold and diamonds. Currently, miners are adopting modern technology to make their operations more efficient and effective.

## (ii) Provision of Technical Services and Training

- The District Offices are staffed with mining engineers who continually render extension services to small-scale miners.
- Currently training is largely on mercury pollution abatement. The target groups are miners as well as other members of the mining communities.

## (iii) Management of Government Assistance to Small Scale Miners

This includes:

- Supervision of Geological investigation of designated areas for licensing to small scale miners
- Monitoring of financial assistance for the purchase of equipment or rehabilitation of facilities to enhance and/or expand operations of Small Scale Miners.<sup>11</sup>

The three (3) regional offices of the Inspectorate Division also assist in the regulation of small scale mining

### 3.6 Public/Stakeholders Consultation and Participation in Decision-Making Related to Mining

Mining is necessarily multi-faceted in terms of activities and impacts. Whilst in the past it operated as an enclave and therefore led to conflicts among a number of stakeholders, the trend is now collaboration among stakeholders.

Some of the important consultative processes have been:

#### a. Consultations during Mineral Right Acquisition

---

<sup>11</sup> Government has assisted four gold mining cooperatives in different parts of the country with a total amount of GH¢600,000 to enable them purchase equipment and improve upon their operations. In the salt sub-sector, associations in Elmina have also been assisted with over GH¢320,000.

There has always been some consultation in the processing of mineral rights and management of mining operations as required under section 13 of Act 703 and the Minerals Regulations, 1962 (LI 231).

During the processing of initial mineral rights, the public is consulted through a provision which requires a 21-day publication at the relevant District where the project will be sited. Subsequently, before any work will begin, all stakeholders are engaged to negotiate for payments of compensations etc.

Additionally, in the case of a mining lease, various public hearings are held in and with the project affected communities by the Environmental Protection Agency (EPA), as required under LI 1652, to address envisaged impacts of the mining operations on the environment among others.

b. Other Consultations Include:

As indicated in Section 3:2 earlier on, multi-stakeholder consultation is an evolving trend in activities of the sector. Some additional examples are:

- Multi-stakeholder workshops to discuss draft national mining policy
- Multi-stakeholder workshops to discuss draft regulations to give effect to Act 703
- Multi-stakeholder workshops to discuss mining sector matrix under the Natural Resources and Environmental Governance (NREG) Programme
- Multi-stakeholder workshop on Validation of Terms of References (TORs) of consultancy activities under the NREG Programme
- Multi-stakeholder workshop to sensitize stakeholders on solar salt technology and how Ghana stands to benefit if the salt sub-sector is handled well
- Multi-stakeholder workshop to discuss mine fiscal model aimed at increasing mining revenues to Government

- Consultations with mining communities/civil society and mining companies on content of social responsibility guidelines
- Survey to establish baseline data regarding social conflicts in mining communities
- Multi-stakeholder workshops to improve coordination among key institutions having responsibility for the mining sector
- Consultations with stakeholders on cost benefit analysis of mining in Ghana
- Participation of NGOs/CSOs, Academia on committees that drafted the various regulations.
- Various workshops on Small Scale Mining to improve the sub sector.

### 3.7 Public Governance and Transparency in the Mining Sector

Good governance and transparency issues in the mining sector have been dealt with as follows:

#### (i) Extractive Industries Transparency Initiative (EITI)

With its own transparency agenda, Ghana signed up to the EITI in 2003 and has been working mainly with the mining sector. Ghana's agenda involved the need for an open, transparent and efficient system of knowing how much mineral royalty was due to be returned to local communities, when and how it would be paid, and what it would be used for. Ghana therefore became a leader in implementing a sub-national template and reporting system within its EITI programme, along with the global EITI requirements. From the latter part of 2007, members of the National Steering Committee have started discussions on possibly expanding the scope of Ghana EITI (GEITI) to both the forestry and the oil and gas sectors.

#### (ii) Legislation

As stated earlier in section 3.2, the new Mining Code has introduced a number of improvements in good governance, notably:

- Transparency: The Minister responsible for mines is required to give written reasons where an application is not granted
- Dispute Resolution Measures: These are provided for all dispute situations.

### (iii) Appropriate Institutions

Appropriate institutions have been put in place to promote, regulate and manage the mining sector. The key institutions, (the roles of which have been discussed earlier) are:

- Ministry of Lands and Natural Resources
- Minerals Commission
- Geological Survey Department
- The Environmental Protection Agency
- Lands Commission
- Precious Minerals and Marketing Company
- Forestry Commission
- Water Resources Commission

### (iv) Improved Systems

These include:

- Availability of database to assist investors looking for open grounds i.e. Geographic Information System (GIS) based mineral title cadastre etc.
- Compilation of “Procedures for the acquisition of Mineral Rights” in a brochure
- Priority to mineral applications that are first in time i.e., on first come, first considered basis
- Searches for open grounds are conducted electronically and timeously (maximum 10 minutes)
- A Block cadastral system is being introduced to improve and streamline procedures for acquisition of mineral rights, prevent conflicts and will reduce delays in the processing of mineral right applications

- Mineral royalties returned to the mining communities through the Office of the Administrator of Stool Lands (OASL) are publicly disclosed.

#### **4.0 MINING BEST PRACTICES**

Adoption of best practice starts with incorporating best practice into the relevant policies and regulations. As indicated in section 3.2, one of the key rationals for revising Ghana's mineral and mining sector laws was to ensure that it conformed to international best practice. The drafting of subsidiary legislation (regulation) is at an advanced stage and would be laid before Parliament by the end of the year 2009. Various guidelines, criteria, etc. are therefore anticipated to provide a framework for adopting and using best practice in Ghana's mining sector. Examples of these include issues discussed under sections 4.1 to 4.6 below.

##### **4.1 Environmental Impact Assessment (EIA) and Monitoring of all Phases of Mining Operation (exploration, project development, mine operation and mine closure)**

A regulatory system which is stable, transparent and appropriate to national aspiration is in place from the industry perspective and from the regulators perspective; it is clear cut and enforceable.

Section 18 of Act 703 requires and ensures that environmental legislation and guidelines of the country are complied with by mining investors.

The EPA Act, Act 490 (December 1994) is the overarching Act that regulates the environmental regime of the country. The Environmental Assessment Regulation LI 1652 (June 1999) then specifies various reporting requirements to address water pollution, nature/ecological conservation, air pollution, noise and vibration, soil contamination, changes in social, cultural and economic patterns and reclamation bond.

Guidelines have been made under these legislation, notably, the Mining and Environmental Guidelines, Guidelines for Mining in the Production forest reserves, United Nations Environmental Guidelines for Mining Operations and Sector Specific Environmental Impact Assessment Guidelines; to manage the mining industry.

There are various mechanisms to ensure environmental sanity in the mining sector and these include effluent and emission standards, ambient quality standards, economic instruments, Environmental Performance Rating and Disclosure (EPRD) called “Akoben”, command and control mechanism and co-regulation.

All types of mineral-related and mining activities are covered by the regulations and guidelines.

At exploration level, Companies register and upon review by the EPA are given environmental permits to enable them to operate. An environmental permit is required for even a small-scale mining licence. A preliminary environmental assessment or an environmental impact assessment is carried out to obtain an environmental permit depending upon the anticipated level of impact of the mining operations to be carried out.

A provisional environmental management plan is included in the reports produced after the assessments are conducted. Eighteen months after commencement of operations, an environmental management plan is put in place to ensure environmental sanity of the mining operations.

Having prepared mine closure and decommissioning plans, posting of reclamation bonds by the investor is used as a mechanism to ensure that, among others, environmental liabilities are not left behind after mining. The EPA and the Inspectorate Division of the Minerals Commission undertake environmental monitoring of the sector.

#### 4.2 Public-Private Partnership (PPP) for Sustainable Mining

Mining has always been known to be too risky for an individual to venture alone. More recently since it requires huge capital outlay to commence and sustain and it has a broad spectrum in terms of activities involved as well as its impacts, it has been acknowledged that the only way to undertake it efficiently is through partnership. Public Private Partnership for sustainable mining could be one of the viable propositions for the industry.

In Ghana, some examples of PPPs are as follows:

- (i) Presently almost all the major mining companies in Ghana are owned by private international entities with Government having a mandatory 10% Free Carried Interest. Any further participation by Government would have to be done through open and transparent negotiations with the private company as prescribed in section 43 of Act 703.
  
- (ii) Government Representation on Board of Directors  
As a result of Government's interest stated above, Government has representation on Boards.

It has been argued in some quarters that these provisions would serve as disincentive to investment; however an opposing argument has been presented and even supported by investors on the basis of:

- (a) cooperation to achieve mutual interests of the parties rather than competition
- (b) assurance to investors of unlikelihood of Government expropriation
- (c) Government through involvement and influence could assure itself

of achieving its goals and also getting to know investors intentions better.

(iii) Compensation Negotiations

Public Private Partnership also occurs within the framework of compensation negotiations, through representation on relevant committees (local government authorities; investors as well as impacted parties and others), the nature and process of work done.

(iv) Corporate Social Responsibility through Trust Funds

Mining companies, through Trust Funds established or annual budgets provided, finance projects in impacted communities/their catchment areas. The management and use of these Funds are PPP in nature.

Through such initiatives the advantages of working in the cooperative and coordinated manner of PPPs have been demonstrated. However there is the capacity to expand the role of PPPs.

#### 4.3 Emergency Response Plans and Preparedness at the Local level

Under the previous regulations, LI 665, 1970 there were broad provisions for dealing with issues relating to safety, health and the environment. For operational purposes, guidelines are agreed with the mining companies to stipulate in more detailed how the regulations were to be applied. However, with the passage of Act 703, comprehensive regulations are being drafted to give legal backing to the detailed provisions. The following therefore summarizes the existing practices as agreed with stakeholders and which have been reflected in the draft regulations.

Risk assessment is preformed to identify all possible emergency conditions that arise locally. Based on the risk assessment, appropriate emergency response procedures are

established. As a follow up at the local level, comprehensive emergency plans are put in place to appropriately deal with on-site emergency conditions in order to prevent exposure of people and the environment from the possible impacts.

Emergency Response Plans (ERP) that must have support of management and which must include details procedure to be followed in case of an emergency are documented and followed. Specific tasks are also assigned to personnel in charge of the Plan. The ERP is boldly advertised to inform workers on what to do when specific situations arise. Some of the major causes of emergency in the Ghanaian mines and their impacted communities are fire outbreaks and chemical spillages.

To ensure the preparedness for any incidents, the following are put in place,

- Drills to test the emergency procedure for first aid treatment are conducted on a six-monthly basis. The complete response chain, including first aid, ambulance and hospital component are audited every six months and corrective actions taken where appropriate.
- Drills to simulate other emergencies, as identified, are conducted on a regular basis to ensure that the locals are familiar with emergency procedures and that they can respond appropriately
- Locals are trained in emergency procedures and assessed as competent to recognize, and deal with, all possible emergencies as identified

#### 4.4 Risk Assessment of Mines and Mining Activities

As stated in Section 4:3, the first step to emergency preparedness and maintaining a safe workplace is defining and analyzing hazards. Although all hazards should be addressed, resource limitations do not allow this to happen at one time. Risk assessment is therefore used to establish priorities so that the most dangerous situations are addressed first and those least likely to occur and least likely to cause major problems can be considered later.

In line with existing guidelines and proposed regulations, the following steps are followed during Risk Assessment in the Mining Industry:

- Selecting the group to conduct the analysis
- Defining the geographic area to be included
- Identifying all of the possible hazards that exist in the area selected for study.
- Evaluating the risks
- Use the Hazard Ratings During Resource Allocation
- The task of risk assessment is an ongoing activity

#### 4.5 Rehabilitation of Affected Communities and Life Supporting Ecosystems, including mine site decommissioning

Rehabilitation is a systematic process directed at bringing back a system to, or very close to its original state of active life, healthiness and usefulness, again. Since humans are the most visibly affected, and also the major beneficiaries of a balanced and sustained ecosystem, they must play a central and responsible role in all mining and rehabilitation activities.

##### 4.5.1 Effects of Mining on the Communities

The impact of mining activities on the environment include; degradation that result in the loss of means of livelihood to the adjoining farming communities and therefore deepening the poverty levels of the people, distortion of the ecosystem, pollution of the environment and complete re-location of the community which comes with social adjustment challenges.

The existing practice includes the following:

- Before closing a mine site, the holder of the mining lease is required to satisfy the Chief Inspector of Mines that all sources of potential pollution and residual component of the mining project upon closure are designed to be stable for the long term

- The holder of the mining lease is required to ensure no emission of polluted water, air or dust will occur from the closed mining area.
- The holder of a mining lease is required to submit mine closure plans which should include a description of closure and rehabilitation of a mine to the Inspectorate Division for approval.

During the process of rehabilitation, public awareness and education is vigorously pursued in the communities before, during and even after mining, to sensitize the people of all the losses they might incur in the cause of the operations. Also, concrete, prudent and comparably better, and yet sustainable mitigating packages are instituted to compensate communities during and after the operations. These should include but not limited to:

- Alternative livelihood programmes to compensate for lost income generating sources.
- Training and resourcing the community to identify and mitigate potential emergencies.
- Putting in place sustainable and life improvement programme for the youth and children with the aim of giving them better and improved skills in all manner of trades that would ensure better sources of livelihood for them, in future.

#### 4.6 Technological, Institutional and Social Initiatives for Protecting the Health of Mine workers

Currently the Inspectorate Division of the Minerals Commission is responsible for all issues relating to the Health and Safety of the mines and its workers. The Division has a functioning laboratory at its Takoradi Regional Offices which assists in carrying out this responsibility in mining operations. Activities undertaken by the laboratory includes: chemical analyses, fire assay and environmental analyses.

The Division also carries out routine inspections in respect of the following areas:

- Underground mines;

- Surface mines;
- Exploration concessions;
- Quarries and other industrial minerals operating sites;
- Explosives companies and magazines;
- Pre-licencing activities;
- Machinery operations and
- Environmental issues related to mining.

To ensure the technical competence of mining staff and thereby assure the health and safety of mine workers, the Division also sees to the training in, examinations for and certification in:

- Mine Rescue Certificate of Competency;
- Blasting Certificate of Competency;
- Mine Foreman Certificate of Competency;
- Shift Boss Certificate of Competency;
- Mine Captain Certificate of Competency;
- Underground Managers' Certificate of Competency; and
- Mine Managers' Certificate of Competency.

Additionally the Division, along with the Chamber of Mines, organizes the celebration of "Annual Mine Safety Days" as a social initiative. Safety competitions are used on such celebrations to educate workers and people living in mining communities alike on safety procedures in a mining environment, among others.

Through their Corporate Social Responsibility (CSR) activities, mining companies are also working to ensure the health of their staff and dependants, through examples like:

- Provision of free medical care for workers and their dependants
- Subsidized medical care to members of host communities. For example; Bibiani, Awaso, Obuasi, Tarkwa (ABA) and Nsuta hospitals.
- An HIV Voluntary Counseling and Testing centre for the Tarkwa township.

- The multi-million Ghana cedis malaria control programme of Anglo Gold Ashanti's Obuasi Mine which is targeted at reducing the prevalence rate of malaria in adjoining communities. The key achievement of the programme so far include:
  - 73% reduction in Malaria cases in Obuasi since 2005
  - 36,000 houses sprayed
  - Positive response & acceptance from community
  - 128 jobs created from community
  - International recognition; Global Business Coalition – Business Excellence “Malaria Award” and 2<sup>nd</sup> Pan African Health Awards

#### 4.7 Mine Closure Planning

Issues under this topic has been discussed under section 4.1

#### 4.8 Facilitation of Sustainable Development through Linkages with other Sectors of the Economy

Though not sustainable itself, mining can catalyse broad sustainable developments through linkages – forward, backwards and sidestream – with other sectors of the economy. In a limited way, Ghana's “Mine Support Service” sector has provided some growth in this direction. However, the potential is largely underexploited and could significantly be expanded. Indeed, some collaboration between government and the Chamber of Mines is beginning to provide impetus for an expanded industrial linkage. This area though continues to be a challenge which needs to be addressed through both (i) encouraging Research and Development (R & D) and (ii) promoting investment into the sub sector.

#### 4.9 Support from and Collaboration with Development Partners

Ghana's mining sector has received both bilateral and multilateral support to continue to sustain and reinvigorate interest and investment into it. The World Bank and Nordic Development Fund provided support for the implementation of the Mining Sector

Development and Environment Project of July 1995 and September 1996 respectively; the French Government and UNIDO supported Mercury Abatement Programme of December 1999 and February 2002; the European Union funded the Mining Sector Support Programme of December 2002 and currently the multi-donor agencies are providing budget support through the Natural Resource and Environmental Governance (NREG) Programme which started in May 2008 are examples.

Notably, each of the support programmes provided for institutional capacity building to ensure improved human resource capacity within relevant mining sector agencies. The range of other sector priorities that have been dealt with have also included: revision of the legal, fiscal and institutional frameworks; improvement of mineral rights processing and management systems; undertaking airborne geophysical as well as ground surveys to provide information for investment promotion; research to improve the ASM sector; provision of logistical support; and studies into various aspects of the sector's operations.

## **5.0 CONCLUSION**

The information provided in the report indicates that varying degrees of progress have been made towards, particularly, putting in place a transparent and accountable regulatory framework; ensuring broad stakeholder participation in all aspects of the sector; improving environmental, economic, health and social impacts/benefits of mining as well as institutional financial and technical capacity-building through the support of various development partners.

A notable challenge in all this has been the inadequacy of resources and capacity to support achievement of targets. Additionally the following key challenges has characterised the sector.

- Development of the requisite linkages between the mining sector and the rest of the economy. A conscious promotional drive, including Research and Development and the application of findings will be required;

- A focus on only a few minerals, notably gold bauxite manganese and diamonds but especially gold. There would therefore be the need to diversify into other minerals which Ghana has potential to produce;
- Management of Artisanal and Small Scale Mining. Finding suitable areas as well as the creation of awareness among such miners to regularize their operations and to operate legally, efficiently and in an environmentally friendly manner would be required;
- Monitoring and evaluation of fiscal and financial flows within the sector to ensure efficient and equitable mobilization and distribution of the benefits of mining; and
- Securing and holistically packaging geo-scientific information to continue to attract investment. In this respect, further streamlining and strengthening the capacity of Ghana's Geological Survey Department and other mineral sector regulatory and promotional agencies will be required.

Though listed as challenges in view of the fact that they have not be adequately overcome, some progress has been and continues to be made in even these areas. It is therefore hoped that even as Ghana continues to receive support from and works with development partners in these and other emerging areas, the sector would more sustainably contribute to the development of not just the current generation but also lay the foundation for the development of future generations.