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Kazakhstan Legislation for Allocation of Mining Exploration Rights



Report 1

Allocation of exploration rights for
mining in a sample of major
global mining countries

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Kazakhstan Joint Economic Research Program

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INTRODUCTION

1.1 Purpose of Study

This study has been undertaken to provide input to the Government of Kazakhstan on mineral exploration policy. The purpose is to offer advice for policy reform in the mineral sector. It examines best practices in licencing and regulation for mineral exploration.

It will review common best practices which pertain to mineral exploration on a world-wide basis. It will also provide examples of countries which have instituted best practices in their legislation and how that has assisted in attracting foreign investment in the sector. Countries which will be studied are Australia (Western Australia), Chile, Sweden, Ghana and the Philippines. Other countries are discussed to provide a necessary example of the need for transparency, consistency and fairness. These are Argentina and Mongolia.

Information on each of these countries is different depending upon the transparency of information that is available. This study has attempted to show how these countries have dealt with international investment through policy and legislative initiatives.

1.2 Why Exploration Policy?

Good exploration policy is necessary in order to ensure that exploration takes place to find economically viable mineral deposits that can be developed. Many deposits may be found that are not “economic” to develop. This may be due to market conditions (demand/supply), prices of minerals, grades and/or cost of

operations to develop the deposit - one or all of which make it impossible for a company to make a profit in any operation.

Governments that want to encourage the mining industry and attract investment from both domestic and foreign companies need to consider the factors which make their country attractive to that industry. Most important is to have a stable legal and fiscal regime. The rules should be transparent, easily understood and consistent. The more exploration activity in a country the better chance is to find those rich deposits.

To establish exploration policy, governments need to recognize that mining is a high risk industry. Only 1 exploration program in 1000 successfully results in finding an economically viable deposit. In fact it is estimated that for gold it is more likely to be 1 in 10,000 programs that have a probability of success. ¹

Professor R. J Eggert of the Colorado School of Mines has explained geologic risk as:

*"Think of geologic risk here as the probability that a specific exploration or development project leads to an operating mine. It sometimes is said that it takes 500-1,000 grassroots exploration projects to identify 100 targets for advanced exploration, which in turn lead to 10 development projects, 1 of which becomes a profitable mine."*²

According to the Geological Survey, Sweden develops one new mine for every 200 exploration permits. This demonstrates an excellent geological knowledge which limits the risk in exploration.

The risk for companies is that, despite spending money on exploration, the greater probability is that they will not find an economic resource. They often raise money, often based on income from an already existing mine or raised through loans or through stock purchases, for new exploration. Stock markets, such as Toronto, Canada, have been instrumental in raising funds for junior and medium sized companies, generally credited for finding many deposits. These companies have little money themselves and therefore when they find a deposit their only way to recover the risk money they have invested is to join with, or sell

¹ Enders, M.Stephen, "Discovery, Innovation and Learning in the Mining Business - New Ways Forward for an Old Industry", SEG Newsletter, No.86, July 2011, page 16.

² R.J.Eggert."Mineral Exploration and Development: Risk and Reward", Conference Paper, presented at the International Conference on Mining, Phnom Penh, Cambodia, 26-27 May 2010, page 4.

to, a larger, more financially viable company that can develop it. This is why governments need to ensure that through policy, legislation and programs they can lessen the risk to find deposits and allow for flexibility of licensees to deal with the property.

When companies decide where to invest, particularly in Greenfield exploration, they look at:

- The mineral market – supply, demand, price
- The economic environment – business cycle exchange rates, taxation, external sources of funding, availability of human resources
- Government policy – world class regulatory system, environmental, social , political risk
- Exploration environment – problems with finding a resources, ability to discover, develop or transfer their rights

Companies go through a process when deciding where they will spend their exploration funds. Rio Tinto, the largest mining company in the world, has said quite clearly in a pamphlet on their approach to exploration:

"Area selection is the first stage of the exploration process and involves deciding where to explore. Every decision is based on a desktop evaluation of geological, geophysical and geochemical data and on an assessment of health, safety, environmental and community issues that may impact upon an exploration programme. Communities and other groups that may be affected by exploration are identified at this stage. Areas of high ecological or cultural sensitivity and regions with a high security risk, human rights issues or anti-mining culture are eliminated or downgraded."

Governments must ensure that the regulation of exploration is a simple, transparent process which limits the amount of time and money a company must risk in bureaucratic procedures. The aim for government is to ensure that there are as many exploration programs as possible so as to find a number of economic deposits.

It is necessary for governments to also demonstrate a political commitment to developing a vibrant mining industry. Outside of the areas cited above, many governments encourage, through their own geological organizations, programs of continuous mapping and geological research – all of which is readily available (in most major mining countries on-line) to explorers. In addition, investment in research outside of government through universities and private research companies is something which one sees in countries where mining investment is attracted.

Government needs to encourage innovative approaches to exploration and new technologies which enable companies to find deposits faster, cheaper and more efficiently. New technologies such as “increased use of GPS, ICP-MS laboratory analysis has both increased the quality and speed of data acquisition.”³ Michel Jerk, cited below, also noted in his article that the e-staking developed by the Quebec Government “has had a huge and positive change in exploration to allow for a reorganized approach to exploration programs.” Another example of this is Western Australia where the government has established a Minerals Research Institute, which will be discussed later in this report.

The example of Western Australia is important because it demonstrates that attracting new exploration is not just about the legal and administrative system but also government commitment to the acquisition of information and research and development in the industry.

The case studies which follow will attempt to demonstrate how a number of countries have been able to attract exploration and sustain it. There is no doubt that a stable legal and fiscal regime as well as commitment to good administrative practices and research and development are key elements when determining government approaches to attracting mineral exploration.

1.3 Basic Principles of Mining Exploration Policy

No matter what country you review, it is clear that regulation of the mining industry is a balancing act. It must balance the public and private interests, investors, and regional and community interests. Mining brings complex issues more so today with the difficulties regarding health and safety, land access, aboriginal rights and environmental protection. Policy must address these competing issues and try to satisfy all of them.

There is no one country which stands out as having the best practice in mining policy. There are many different legal systems, cultural, social and political considerations that go into establishing a mining sector policy. Every country therefore has a different approach. Despite this there are principles that are common to the legislation and policy of countries where mining has become a sustainable and continuous industry. The case studies which follow will be considered based upon these common principles.

³ Jebrak, Michel. "Innovation in Mineral Exploration: Success and Challenges", SEG Newsletter, No.86, July 2011, page 12.

Despite the commitment to a good practice it is important to understand that despite having an excellent law with fair and transparent provisions, the application of that law may not be the same because of the lack of institutional capacity, an effective cadastre system to keep track of mining rights. Corruption has also played a part in the failure of what may be a good regulatory system.⁴

1.3.1 Ownership

In most countries, the State owns the minerals. This allows it to define the rules for the exploration and exploitation of those resources. In the United States private land owners own the minerals on or in their land, unless they are Federal Lands. However in most instances, mining takes place on public lands in the United States which the government does own. Even where private ownership is the case, government authorization is required as there must be compliance of other laws, such as those pertaining to environment, health and safety etc.

Once a mineral licence is granted, the licence allows the holder of that licence to exploit the minerals and sell them. Some laws or agreements specifically transfer ownership of the exploited minerals to the holder.

1.3.2 Security of Title (tenure).

There are two tenets of good practice regarding the security of title. First, once a title is granted, as long as the licensee is fulfilling its obligations, it cannot be taken away arbitrarily and will be renewed without issue. Secondly, there is a mechanism in the law that allows an exploration licensee to obtain a mining licence for any discovery which it wants to develop.

An example of automatic renewals is found in Section 35(2) of the Ghana Minerals Act:

On an application duly made under subsection (1), [for renewal] and upon being satisfied that the holder has complied with the obligation imposed by this Act with respect to

(a) the holding of the licence, and

(b) the activities to be conducted under the prospecting licence,

the Minister shall on the recommendations of the Commission grant an extension of the term of the prospecting licence.

⁴ Sector Licencing Studies Mining Sector, Investment Climate Advisory Services, World Bank Group, 2009?, page 11.

An example of the latter is Section 3 in the Swedish Minerals Act Minerals Ordinance:

If several persons have applied for a concession ⁵for the same area and more than one person can be considered in accordance with Section 2, the applicant holding an exploration permit within the area for any mineral covered by his application for a concession shall have precedence. If none of the applicants holds an exploration permit, the applicant who has undertaken appropriate exploration work within the area shall have precedence. Otherwise the applicant who first submitted his application shall have precedence.

The Chilean mining law in Article 27 states that “ A mining concession cannot be granted on substances existing in tracts already covered by mining concessions.”

1.3.3 Exclusivity

This principle gives the holder of the exploration licence the exclusive right to explore for any minerals in the area over which the licence is granted or for all minerals in a specified area.

Some countries have allowed licences to different holders for different minerals on the same areas. Others give a licence to explore for all minerals in a specified area. Allowing different explorers for different minerals in the same area is more problematic. If a large deposit is found by one explorer, others who may also be exploring that area for different minerals must be accommodated. Normally they will resolve the situation between them. If not, the law must allow for a resolution of any dispute. There is potential for uncertainty and more difficulty in administering such titles.

Section 116 of the Chilean mining code states:

“the Owner of a concession shall have the exclusive right to freely explore and mine his claim, without limitations.” (except for any matters in law.)

The mining law of the Philippines states in Section 20: “An exploration permit grants the right to conduct exploration for all minerals in specified areas.”

In Ghana, Section 34(1) allows an application for all or any of the minerals :

⁵ In the countries under study, the same application process applies for all minerals rights except for The Philippines where it is, in general, a system of agreements.

"The Minister may, on an application duly made by a qualified person and on the recommendation of the Commission, grant a prospecting licence in respect of all or any of the minerals specified in the application."

1.3.4 First-Come First- Serve

This principle recognizes that licenses which are granted are issued to whoever applied first for that license. Most countries implement this practice although there are some countries where there is an auction system. For example, in the Swedish mining law, Chapter 2, section 3 states: *"If an area is the subject of several applications for an exploration permit... the applicant who first submitted his application shall have precedence."*

Russia has a system where all licenses are issued by auction to the highest bidder. In China auctions are allowed for areas that have been previously explored, but first-come first-served for unexplored areas. In the Philippines the Government has just suggested that auctions be used for previous mining areas no longer mined or for large deposits that have been discovered but not developed. The first-come first-serve principle would continue for all other instances.

The difficulty with an auction system is the need for transparency, that there is a fair procedure and that it takes into account the financial viability of the resource that exists or might exist in the area being tendered. The geological risks need to be addressed so government must provide detailed information on the geology of the area being put to bid. It is much more difficult to attract investment in greenfield areas where there is little information or where that information must be reviewed and confirmed. The auction system requires substantial upfront costs on the part of the bidders. If there is a lack of geological data and/or administrative or political uncertainty it is less likely that investors will be attracted to the area being posted.

The first-come first-serve system is simplest and fair which is why most jurisdictions use it. It is also easy to administer especially now when applications are made on-line and therefore timed by computer application.

Whatever system is used it needs to be fair, transparent and timely and allow for dispute settlement should issues arise.

1.3.5 Non-Discrimination

If a country is open and allows private foreign companies to freely participate in its mining industry, it needs to ensure that there are no special allowances for either domestic mining firms or state-owned mining firms.

This is often done through the investment laws in general but most mining laws allow “any person” or “any applicant” who meets the necessary criteria to apply for an exploration licence. For example, the Western Australia mining law states in Section 57 (4)

*“Subject to this Act, the Minister, may on the application of **any person**, after receiving a recommendation of the warden...grant to that that person a licence to be known as an exploration licence...”*

Different jurisdictions treat the criteria required for an acceptable exploration applicant. In Sweden for instance the law in Section 2 states that an exploration right will not be granted to a person who manifestly cannot do the exploration program (as determined by the Inspectorate) or who showed previously that they were unsuitable.

In Ghana the applicant for a prospecting licence must be incorporated under the Companies Act and must show it has the technical and financial resources to do the proposed program and must give an estimate of the amount to be spent on its program of proposed operations.

In Western Australia a miner's right can be issued to anyone, while an exploration right needs only have a proposed work program. The determination of whether they are qualified would be subject of the Warden's hearing and a review by officials in the Department.

Chile is a good example of where the private sector and a state-owned mining company exist and are subject to the same responsibilities and obligations. Codelco, the state-owned firm, is the world's largest copper producer. It is subject to all the laws of Chile as is any publicly listed or private company. In fact, only recently the government made the company more independent by lessening the government presence on its Board of Directors and allowing the company to appoint its own directors thereby lessening government control of decision-making.

1.3.6 Transferability

Most laws allow for the holder of an exploration licence to transfer, whether in whole or in part, its licence to a third party. Most often such a transfer will require some approval but unless fraud is involved, such a transfer will be allowed. The Ghana Minerals Act 2006 section 13 (14) deals with the ability to transfer rights. It states:

“Subject to the other provisions of this section, an undivided proportionate part of a mineral right or application for a mineral right may be transferred, assigned, mortgaged or otherwise encumbered or dealt with. The Minister

must approve such a transaction and his approval shall not be "unreasonably withheld or given subject to unreasonable conditions".

In Sweden for instance, the exploration licence may be transferred as long as the person to whom it is transferred is capable of doing the work and the body administering the licence agrees.

In some laws, there is a restriction on the time when transfer can occur in order to ensure that speculation in the licences is minimized. For example, Western Australia's mining law, Section 64 does not allow for the transfer of an exploration licence at any time during the first year of the term of the licence.

This principle of transfer is necessary in order to ensure that the company's investment is protected and they have the ability to bring in new partners who can assist in financing of their project or in providing greater technical expertise to the project. As long as companies are not speculating on the property, transfers and assignments are seldom refused.

1.3.7 Dispute Resolution

The laws of many countries have protections against arbitrary decisions by the government. Many countries have arbitration laws or have special provisions within their mining legislation allowing for various decisions by a minister to be disputed. A procedure is set out to be followed.

An example is in the Ghanaian mining law where the refusal of a transfer has to be done in writing and give reasons for the denial. The dispute procedure is outlined in Section 27, where it is clearly stated that any dispute that is not resolved amicably can be referred by either party to be resolved under the Arbitration Act (if a citizen). If the party is not a citizen it is referred to arbitration *"in accordance with international machinery for resolution of investment disputes, as agreed by the parties"*. If not agreed to by the parties it is referred to bilateral or multilateral agreements to which Ghana is a signatory or if that does not exist, the rules of procedure of the United Nations Commission on International Trade (UNCITRAL). Most countries have provisions of settling disputes which follow established international practices. If there are questions regarding the rule of law in a country, companies will often ask for agreements in which there will be a clear procedure for addressing how disputes will be settled most often using international agencies such as UNCITRAL or the International Chamber of Commerce.

It is an important aspect of international practice to ensure that disputes can be settled in a fair and transparent manner. International investors will look to these procedures to ensure their financial investment is protected.

1.3.8 Reserved Areas

Other matters such as land access and reserved areas are addressed in laws. Mining is an intrusive land activity and it is important to outline in the law what the rules are for access to land for exploration. The laws usually give the right to access the land and to right to carry out activities on the land. The licence holder will be able to have access to water, build roads and erect temporary buildings. It is also important to be clear on what areas of the country are not open to mining. Areas close to communities, national and local parks, nature reserves, roads, railways etc are examples of areas exempted from licencing. In the Philippines the government law exempts *“strategic raw materials for industries critical to national development or for scientific, cultural or ecological value”* when the *“national interest so requires.”*

In Ghana the law allows the Minister to reserve land that *“is not subject of a mineral right”* (Section 4).

The important aspect is that at the time an area or a mineral is excluded from mining it does not affect any pre-existing title.

It is important to give up-front indications of areas that are not open for mining. No company wants to invest in an area, find an economic reserve and then have it declared reserved by the government. Most laws will allow such mining to continue, i.e. "grandfather" already existing licenses.

These are the general principles that can be found in most internationally accepted mining laws. They are what guide the development of good practice on the part of governments when developing their policy.

1.3.9 Work Programs and Relinquishments

In most jurisdictions under study, an applicant for an exploration right must submit a work program for the period of time of their licence. As exploration continues and at the time that the licence is renewed, a new program would be necessary and would increase in both content and the amount of minimum expenditure that is required in order to ensure the holder is increasing its exploration efforts and concentrating on the most prospective areas. In some jurisdictions such as Western Australia, the minimum expenditures are set out. In others, the program is reviewed by officials who understand the program-expenditure relationship and they would have to find it technically acceptable.

Work programs are an excellent method of ensuring that the land gets explored. The fulfillment of the program is a pre-requisite of a renewal of the exploration right so the holder must do the work (or get an amendment) in order to get a renewal of the permit. In Chile, where there is no work program requirement, it

has affected exploration as companies can continue to renew the concession without doing any work. As discussed in the case study this is a reason why so little greenfield exploration is being done in that country.

In addition, most jurisdictions require a relinquishment of a part of the exploration area on renewal. It ensures that the title holder is focusing on the most prospective areas in their title. The relinquished land is then available for new entrants to explore thereby increasing the number of explorers. It also means that the geoscience generated on those lands is acquired by the Geological Survey and can be used to update their own research as well as be available for provision to new entrants, who are able to licence the relinquished areas. Relinquishment is a major exploration generation technique. All of the countries examined in this Report have this as a policy.

1.3.10 Access to Geological Data

Generating and providing geological information and coordinating research efforts in this area is a role that governments should have as a priority. There are a number of reasons for this that were pointed out in the Report of the Productivity Commission in Australia.⁶ On page 208 of that Report, the Commission outlines the reasons governments should be involved in generating and providing geoscience information:

1. It is non-rivalrous: everyone has access to the same information.
2. It assists in the planning and management on the economic, social and environmental management and exploration for natural resources.
3. It attracts exploration investment by allowing identification of areas of favourable mining potential
4. It increases exploration efficiency as individual companies are not duplicating the same information or spending money on non-prospective areas
5. It increases effectiveness by providing key information on inputs to risk-based decision-making
6. it reduces exploration costs and risk thereby improving the return on investment for the mining companies and ultimately increases revenues to government in royalties and taxes.

Most countries see the geological potential as one of the most important aspects of their promotion of the mining sector. That is why so many are undertaking

⁶ Minerals and Energy Resource Exploration. Productivity Commission, Commonwealth of Australia, Draft Report, May 2013.

studies which they provide publicly. Data management programs that allow internet access to geological information are becoming the norm. Accumulating the data from explorers and generating it through their Geological Surveys has become a major focus for governments trying to attract exploration. In general it is provided free as an incentive. If not free usually it is only administrative fees charged for provision of data.

The Fraser Institute considers all of Australia's geological surveys as among the best in the world and rated Western Australia as third in the world. As the Institute points out there are no restrictions on who can access the information, it is available on line and can be accessed from anywhere in the world and it is free of charge.

In the four of the jurisdictions under review, Ghana, Chile, Sweden and Western Australia all have major commitments to increasing the geological knowledge of their territories. Despite the fact that Australia's States all have active, excellent Geological Surveys, there is still concern that they continue to fund those efforts and maintain easily accessed information. It is one of the key areas under investigation by the Productivity Commission.

1.3.11 Regulatory Practices

In recent years, there have been two trends in regulatory administrative practice which have become part of the laws in many countries.

The first is to make the processes in the law and the grant of permissions and licences non-discretionary. This means that the process is set up to ensure that once a person does whatever the legislation requires, they will be issued a licence. For example, if a person makes an exploration application and has all the information required such as work program, the Minister or official is obligated to issue the permits. This is the same for renewals of licences. If they have fulfilled their obligations during the first term of their licence, the renewal is automatic. This is meant to ensure that the decision-making process is objective and that it is fair in its application. It also limits political interference or biased decision-making by either a minister or official. Examples are outlined in the case studies.

The second practice is more recent. Regulators around the world are undertaking what is known as performance based regulation as opposed to prescriptive regulation. Prescriptive legislation is defined as application of a rigid regulatory framework, where compliance with the regulations is expected. Inspections and audits are frequent. Performance-based regulation prescribes outcomes to be achieved rather than focusing on the step-by-step processes to which a company

must comply. It allows more flexibility for the companies while meeting the outcomes that are desired by government. Performance based regulation has become the norm in environmental practices and the oil and gas industry regulation is also becoming much more performance based.

An example of a performance-based regulation is found in the Nova Scotia Offshore Petroleum Drilling and Production Regulations, SOR/2009-317 (current to May 31, 2012) which states

'The operator shall ensure that:

(a) the drilling fluid system and associated monitoring equipment is designed, installed, operated and maintained to provide an effective barrier against formation pressure, to allow for proper well evaluation, to ensure safe drilling operations and to prevent pollution;

and

(b) the indicators and alarms associated with the monitoring equipment are strategically located on the drilling rig to alert onsite personnel."

The objectives or outcomes are to make certain there is an effective barrier against formation pressure. How the company does that and what technology it uses to accomplish that, is its decision. Their plan is reviewed by officials and approved. It is then continually assessed and reviewed.

Performance-based regulation is more demanding for both government and industry. Government must know what outcomes it wants and how it will assess and monitor the various companies. A company have to be much more dedicated to how it manages its risks to ensure they comply with the stated outcome.

One other result of performance-based regulation is to foster new technologies which improve performance. Companies who are innovative can use new technology to attain the outcomes more effectively and efficiently. In industries such as oil and gas and mining an important consideration is innovation which lowers costs and makes the process more efficient.

2 CASE STUDIES

2.1 Chile

Chile's mining industry has always been an important part of its economy. However, actions of the Chilean Government in the 1970s included constitutional reforms that gave ownership of all mines to the government. This resulted in the "nationalization" of large copper mines that were owned and operated by mainly US companies. Codelco, Chile's state mining company and the world's largest copper producer became the owner of these forfeited mines. Despite this expropriation, no compensation was forthcoming to the private investors.

After the overthrow of the Government, a new constitution was passed. Market principles became a part of the governing policy and new mining legislation was drafted so as to attract foreign investors and revitalize the mining sector. To ensure that confidence would grow in the country, the new Organic Law on Mining Concessions contained several principles:

- The mining concession would be a property right. This meant the owner could do whatever he wanted – mortgage, transfer etc – as would happen with privately owned real property. The property could only be taken by expropriation.
- In the case of expropriation fair compensation would be paid in cash and reflect the entire reduction in the owner's net worth, equivalent to the present net present value of the future net cash flows.
- The concession holder is not tied to any time or work program but is free to deal with the property as it decides.
- There is no definite term to a concession. It can be held indefinitely with the payment of an annual fee per hectare.

- Licenses would be issued and terminated by the Judicial branch thereby ensuring the lack of political input and thus arbitrary political decisions and the protection of property rights.

The Mining Code reflected these principles, except there are terms on the exploration concessions. It did not levy a royalty. In 2006, a new 3% royalty was enacted which applied to private companies (but not to Codelco). Chile has a very competitive tax regime and it was decided that the low corporate tax rate, and accelerated depreciation provisions, companies were paying only an effective tax rate of 10%.

The mineral sector is the most important industry in the Chilean economy – 20% of its GDP with approximately 110,000 people directly employed and 500,000 indirectly employed. It has one-third of the global production of copper, and a primary supplier of molybdenum, natural nitrates, lithium and iodine. It also has increased interest in gold, silver and manganese. Today it has 8000 mining operations, 20 by very large companies. It is estimated that there is a potential of approximately \$US67 billion of investment over the next eight years which will increase present mining capacity and generate new production. According to the Northern Miner, Chile was fifth in the world for attracting exploration spending in 2012 (more than \$US1 billion).⁷ In 2012 21% of the exploration was undertaken by junior companies below the global average of 39%. Most of the exploration takes place at present mining sites to expand the reserves.

Once the new mining regime became law, confidence in Chile was almost immediate and many foreign mining companies became mining entities in Chile, competing with Codelco. Today Chile is considered a successful economy. In 2010 it was invited to join the OECD (Organization for Economic Co-Operation and Development), the only Latin American country to be a member. It has an A+ credit rating and is considered by the World Economic Forum in its Global Competition Report (2011-12) as first in Latin America for a competitive economy. The country is now considered politically stable and with a high degree of economic freedom.

2.1.1 Taxation

The tax rates for Chile are listed in Appendix A to this Report.

There is a special mining tax (SMT) only applicable to mining companies with gross mineral sales greater than the value of 12,000 million tonnes of fine copper (MTFC/year). The tax base for the special mining tax is taxable mining income

⁷ “Chile’s Mining Challenges”, Northern Miner, 30 May 2013.

which results after adjusting taxable income for corporate income tax purposes. The special mining tax rate for companies that produce between 12,000 to 50,000MTFC/year is based on the incremental production marginal rates and varies between 0.5% and 4.5%. The special mining tax rate for companies producing more than 50,000 MTFC/year is based on incremental mining operating margin. The effective rate is between 5 and 14%.

Capital gains is payable on the actual sale of assets. There is a flat rate of 15%.

Withholding taxes are as follows: royalties- 30%; dividends-35%; insurance -22%; interest -35%; service fees- 15%; branch remittances - 35%. Payment of withholding is dependent on double tax treaties which may lower or exempt payment.

2.1.2 Exploration

The Minerals Code states that the government owns the mineral resources of Chile.

Chile is one of the easiest countries in which to conduct exploration. Reconnaissance activities are allowed without a license.

In Article 14 of the Law:

"Any person is entitled to dig test holes and to take samples in search for mineral substances, regardless of ownership or property rights over the tenements, except in lands included within the limits of a mining concession granted to a third party. Damages resulting from the exercise of this right shall be compensated."

As mentioned earlier concessions are a real property right and are protected by the constitution.

If the land is titled, the owner of the land must approve the activities. If it is public land, the mayor or governor must grant permission for test drilling. If permission is not given, the person may appeal to a court. Compensation must be paid for any damage. A person may apply on behalf of a third party but that third party must ratify all actions taken by the agent within 30 days of filing the application for a concession.

An exploration concession is exclusive regarding area and covers all the minerals in that area.

Article 116 states:

"The owner of a concession shall have the exclusive right to freely explore his claim..."

Article 114 states:

"During the term of the concession to explore; only the owner of record may file claims" (i.e. claims for mining concessions).

A concession may not be granted on a substance already covered by a mining concession. (Art. 27).

The exploration concession is granted for exploration. It cannot exceed 5000 hectares.

A petition for an exploration licence must contain the name and nationality of the applicant, the geographical coordinates of the area, the designation or name of the concession, and the area in hectares.

The exploration concession has a term of 2 years. It can be extended once for a further 2 year period provided the holder relinquishes 50% of the concession area. The extension is also simple to get.

Section 112 states:

"the court shall, in said event, approve the request and grant the extension, after receipt of a report of the Bureau. An extract of the decision granting the extension shall be published."

The holder of an exploration concession may surrender part or all of the area of a concession and extend it for a further two years if it relinquishes 50% of the area as would be required at the end of the term of the concession.

2.1.3 Administration

The National Mining and Geologic Service reports on the technical aspects of an application such as the map i.e. whether the shape, size and heading of the surface is according to law and if the land is that which is in the petition for the exploration concession.

A person or company makes an application (called a petition) to a local civil court that has jurisdiction over the area which will be contained in the exploration concession area (Art. 34). The person must give their name and nationality, the geographic coordinates of the area applied for, the area, the designation or name of the concession. The Court Secretary records the application and enters it in a special numbered register and issues a receipt to the applicant. The court reviews the application and if all the information required is present, will order the registration and publication of the application (Art 48). If the information required is not complete the judge gives eight days to rectify the issue.

Each petition for exploration is subject to a fiscal tax which must be paid within thirty days of filing the petition. The tax on exploration is as follows:

- 1/100 if the total area does not exceed 300 hectares;
- 2/100 if it is between 300 and 500 hectares;
- 4/100 if it is between 500 and 3000 hectares;
- 5/100 if it exceeds 3000 hectares.

These fees are based on a Monthly Tax Unit which is a monthly number to represent the percentage of average monthly taxes paid by companies.

Within 90 days from the ordering of the registration and publication, the applicant must request a decision from the court. They must show the filing fee is paid, the record of the petition has been filed, the publication of the petition and the map of the configuration. The Court will send the file to the Mines Bureau asking for a report on the technical aspects and map and it must report within 60 days. If there are problems which are identified that can be rectified the Court will give the applicant 30 days to rectify those problems. If everything is favourable, the Court will grant the concession to explore. Under the law the maximum time from petition to grant is 150 days. There is no requirement for a work program for the exploration concession. The holder is responsible for exploring the concession.

The only cause for a concession to be cancelled is non-payment of the annual fee or if a holder mines on the land or allows someone else to do so (Article 115).

2.1.4 Dispute Resolution

In Chile, according to Article 231:

"A Civil Judge of the First Instance with jurisdiction over the center point set forth in the petition or point of interest indicated in a claim shall be vested with powers sufficient to decide on all issues, of a litigious or non-litigious nature, in adversary or voluntary proceedings, with reference to petitions, claims, a concession to explore or to exploit. Nevertheless, all issues of a litigious or non-litigious nature, related to administrative or judicial concessions, either granted or being subject to proceedings on the date this Code is enacted, shall be decided by a court with jurisdiction over the site of the concession or, when pertinent or applicable, the site of the finding indicated in the claim. The foregoing shall be without prejudice to other rules set forth in this Code or special rules enacted in other laws."

As Chile has an independent judiciary, appeals to courts in civil cases where the case is made in law are always possible.

2.1.5 Environment

In the mining code, in the case where a person has dug test holes or taken samples on open or untilled land, they are responsible for all the damages that occurred and must compensate the owner according to court rules.

Chile has an Environment Act which sets up an environmental assessment procedure on any project or activity that might cause environmental impact during the construction, operation or shutdown of a project. Depending on the magnitude of what is being done, the holder of the title will submit a statement or a study. The Environmental Authority must issue its decision in 120 business days. Once they receive approval, the holder is able to get other permits required for air, water and waste. It is unclear whether an exploration project is subject to a full study or a statement.

The Environment Ministry is responsible for policy and programs. An Environmental Assessment Service is responsible for assessing environmental assessments and the Environmental Superintendence has oversight of regulations, inspections and so on.

Specialized environmental courts have been set up to hear environmental disputes. This has given rise to some issues regarding jurisdiction. Under the Chilean Constitution every person is guaranteed the right to live in an unpolluted environment. When there are environmental issues on projects, the environmental courts may resolve these problems and allow the project go ahead. It is still open to the aggrieved parties to go through the civil courts using the argument of their constitutional rights thereby obtaining two different decisions - one from an environmental court on technical issues and the other by a civil court. This is something that the government is considering in order to find ways to ensure that there are no time delays or conflicts with regard to environment.

2.1.6 Other Policy Initiatives

Codelco, the state mining company, has also been subject to changes in the past few years. In 1992 it was given the right to make joint ventures with private companies. However it was still a state company and subject to the policy of the state. Recently, it has become involved in mining operations outside of Chile such as its agreement to explore with the national mining company of Ecuador in 2013 and to activate a mine in northwest Ecuador.

In 2010, the government changed the corporate governance of Codelco to lessen the political influence in its affairs. The government now has only 3 Directors on the Board of Codelco, 2 directors are appointed by the workers and the remaining 4 directors are now appointed by the President of the company. This change was

necessary to comply with the OECD rules when Chile joined as a member. It gives the company more independence from government interference and the ability to operate as if it were a private company.

Chile's system to allow such a simple process to obtain an exploration right was done to ensure that as much exploration as possible could be done with little difficulty and to have little or no political inputs in the system. It would not necessarily work in countries where there is not a clear independence of the judiciary. It is the only country where mining concessions are granted by a court, except for Western Australia where a warden's court is involved in granting smaller, less important exploration-based permits and in hearings on all other mining rights as well as recommending to the Minister on whether these rights should be issued.

One of the issues that has resulted from the Chilean approach is that exploration by junior and medium sized companies is not as robust as the government would like. This is because many of the larger companies have taken out exploration concessions over exploration lands.⁸ Because they do not have work program commitments for exploration concessions, many of the companies are holding on to the lands and failing to do any exploration activities.

The Government has recently invested \$US 92 million and the private sector has committed \$US58 million to support junior companies to explore for new mineral deposits. As well, the government is now undertaking initiatives for the use of new technologies to apply them to known deposits and for greenfield exploration.

Recently President Sebastian Pinera stated that the government's mission is to make Chile the first Latin American nation to become a truly developed country. To do this, Chile must maintain and increase its mining industry. He made the statement on a visit to Canada where he held discussions for the export of Canadian gas by LNG to Chile which would be used to generate power. One of the issues which is affecting both exploration and exploitation investment is the lack of energy. The government is on an ambitious program to find new sources of energy to power mining activities.

Canada and Chile have had a free-trade agreement since 1997. Since that time trade has quadrupled between the countries and Canada is now Chile's third-largest foreign investor. In addition, the President said that to bring Chile out of poverty the country must make a massive investment in *"education, science and technology, fostering more entrepreneurship and innovation and beef up its*

⁸ "Chile's Mining Challenges", Northern Miner reports that 10 companies hold 40% of the exploration lands.

infrastructure."⁹ Chile needs technology, knowledge and innovation capacity from Canada. He signed agreements with Canada during the visit that will expand trade and encourage professional and educational exchanges between the two countries. This demonstrates that the Government of Chile sees innovation, research and development and education as key factors in the further development of its mining sector.

A number of initiatives in geosciences have also been instituted. Semageomin, Chile's geological survey has a program to increase its geological knowledge of the country. By 2016 it plans to publish basic geological maps for 82% of the country, quadruple its published database of aeromagnetic, radiomagnetic and geochemical mapping.

Administratively the government is committed to shortening the time to review and grant exploration concessions from 60 days to 32 days.

More criticism has been leveled at government on environmental issues. Recently the environmental court fined the large Barrick Gold owned Pascua Lama project for environmental misfeasance. A new Environmental Ministry and an independent agency to review projects, will, it is hoped address these issues and make the environmental process more transparent and ensure enforcement when things go awry.

2.2 Philippines

The Philippines is located in what is known as the Pacific "Rim of Fire" - a highly volcanic and seismic area that contains very rich mineral deposits. On a world-wide basis, The Philippines ranks third in gold production, fourth in copper production, fifth in nickel production and sixth on chromite production. Its mineral potential is extremely high.

Gross production of mines was approximately \$US100.8 billion in 2012. The growth in 2011 in metallic production was 9%. Employment in the industry is estimated at 252,000. Most mines in the country are small scale. The number of operating metallic mines is 35. There were 1632 applications for mineral rights in 2011. The Government estimates that there is \$US840 billion worth of mineral reserves in the country. Yet, only 1.5% of GDP was generated through mining. Mineral exports have been 3.7% of all exports since 2007.

⁹ "Chile wants Canada's Natural Gas", Globe and Mail, Saturday, June 1, 2013, News Section page A12.

The Philippines Constitution limits foreign ownership in most economic sectors to no more than 40% of capital. However through the Financial and Technical agreements full ownership may be allowed for large scale exploration, development and utilization.

The Philippines is not without issues with regard to its mineral sector. A Communist insurgency has been a major source of difficulty at mining sites and consistency in the administration of the sector has been a critical issue. A large and vocal anti-mining movement is also influencing public opinion. Administration is a major issue. Local government laws conflicting with national laws especially as it pertains to environment, forestry and land, and mining are causing conflicts. This has caused political instability and has undoubtedly resulted in the Fraser Institute Report designating the Philippines as one of the least attractive places for exploration investment based on their PPI ranking.¹⁰ As one respondent stated:

"A recent Executive Order and required pending legislation creates massive uncertainty for companies involved in exploration and final design stages of mining development."

The Executive Order is one issued by the President on 9 July 2012 entitled "Institutionalizing and Implementing Reforms in the Philippine Mining Sector, Providing Policies and Guidelines to Ensure Environmental Protection and Responsible Mining in the Utilization of Mineral Resources." The EO outlined a number of issues that were to be considered for inclusion in policy and which will be required to be codified. Before discussing its contents, a review of the present exploration policy and regulatory system is necessary to understand the context of the EO.

2.2.1 Taxation

Tax rates as they apply in the Philippines are outlined in Appendix A.

There is a royalty paid to the national government on mineral reservations (areas declared as such by the government) of 5% of market value of gross output.¹¹ There is an excise fee of 2% on the sale of mineral products.

¹⁰ The Fraser Institute develops a Public Policy Index (PPI) based upon 15 factors to assess the overall attractiveness of some 96 jurisdictions. It is based on survey responses affecting investment decisions.

¹¹ "gross output" is defined as the actual market value of minerals or mineral products or bullion for each mine or mineral land operated as a separate entity without deductions for refining, transportation or other expense and exclusive of all taxes.

There is a royalty paid to the indigenous cultural communities of a minimum of 1% of gross output.

The government also imposes a Mines and Tailings Fee of PhP.05/MT (for 1MMT of mine waste equivalent of \$US 1,152) for mine waste produced and PHP .10 MT of mill tailing from operations (for 1MMT of tailings equivalent \$US 2,303).

The Government is planning a major change in its excise tax which would see a basic percentage on the sale of mineral products in lieu of royalty and excise fee. This has yet to be announced but commentators are predicting a 10% excise tax.

There is a capital gains tax in the Philippines but it really a transaction cost on the sale of real property.

2.2.2 Administration

Mining is administered by the Department of Environment and Natural Resources and more specifically the Mines and Geosciences Bureau, the agency which has the day-to-day management of mineral resources in the Philippines. The Bureau has a number of functions: environment and safety, geological survey, mineral economics and information, planning and policy, mining technology, metallurgical technology, and mining tenements. The latter undertakes final evaluation/review of all mining rights application forwarded by the Regional Offices; performs systems audit in the administration of operation of mining contractors and permittees, and manages the Mineral Rights Management System.

The Philippines Mining Law of 1995 contains two methods of exploration: the Exploration Permit (EP) and the Financial or Technical Assistance Agreement (FTAA) for large scale exploration and development and commercial utilization of minerals. In some instances a Mineral Production Sharing Agreement (MPSA) can also include exploration. Under EO No.79, an application is processed and filed once the Bureau ensures it does not encroach on any areas closed to mining. It is then sent to the regional office for review to ensure it complies. It is effective 15 days after it is published in a newspaper and in the Office of the National Administrative Registry.

The law establishes a registry which is both regional and national. The Bureau maintains the mineral resources database and administers the Mineral Rights Management System.

The Government has listed the areas where mining is permitted and can add or delete as it pleases.

2.2.3 Exploration

2.2.3.1 Exploration Permit

The Exploration Permit is granted by the Director of the Bureau if the area is within a reserved area (an area where the Government allows mining) or by the Regional Director outside a reservation. It gives the right to explore for all minerals within a specified area. The applicant must show it has financial capacity of capital stock of PHP10 million (\$US230,245) and paid up capital of PHP 2.5 million (\$US575,613). They must submit and have approved a two year work program with expenditures. It must also demonstrate technical competence and its ability to carry out the work program by having a bank deposit or bank guarantee for the amount. The term of the EP is 2 years and can be renewed for up to 6 years for metallic exploration or 4 years for non-metallic. As long as it has met the obligations of the preceding EP, the Bureau **must** extend the term.

If the EP holder finds a deposit it believes is economically feasible it makes a Declaration of Mining Project Feasibility and can apply for a FTAA or MPSA. The approval of the Declaration gives the EP holder the right to the area for mining. If it fails to apply during the exploration term the Act deems the EP to be extended until the FTAA application is approved.

The Area of the EP is as follows:

In one Province

- Onshore: Individual 20 blocks (1620 hectares)
Corporate entity 200 blocks (16,200 hectares)

In the whole country

- Onshore: Individual 40 blocks (3240 hectares)
Corporate entity 400 blocks (32,400 hectares)
- Offshore: Individual 100 blocks (8100 hectares)
Corporate entity 1000 blocks (81,000 hectares)

A person may apply for a FTAA instead of an EP.

A holder may transfer an exploration permit and it needs the approval of the Secretary of the Department.

2.2.3.2 Financial or Technical Assistance Agreement (FTAA)

A party may apply for technical or financial assistance for large-scale exploration, development and utilization of minerals either after being a holder of an EP or a MPSA. The FTAA is approved by the President on recommendation from the

Secretary of the Department. The applicant is granted the exclusive right to explore, mine, utilize, process, refine, market, transport, export and dispose of minerals and mineral products and by-products that may be derived or produced from the FTAA area.

In its application, there is a need to have a sworn statement of the amount that will be expended and a financial guarantee bond equal to the expenditure obligation for any one year. Proof of technical competence is required and it and its contractors must undertake to use local goods and services. The Act states in Section 35 (i) that there must be provisions for the preferential use of goods and services to the *"maximum extent possible"*. Subsection (j) states that there must be preference for Filipinos in all types of mining *"for which they are qualified and that technology be transferred to the same"*. Each agreement would be negotiated on the basis of those criteria. The company must also provide all information obtained from the area to the government including accounts.

The exploration period under an FTAA is 2 years with a renewal of 2 years. On or before the end of the first two years of the exploration period, the Contractor must relinquish at least 25% of the FTAA Area and during each year of the second two-year period of the exploration period and each year of the Pre-Feasibility Study Period, the FTAA holder must relinquish at least 10% of the FTAA Area existing at the beginning of each such year.

Each FTAA Area after final relinquishment must not exceed 5,000 hectares. A larger area may be permitted by the Mines and Geosciences Bureau Director if after technical verification by the Mines and Geosciences Bureau and with the approval of the DENR Secretary; it is reasonably required due to the nature and size of the mineral deposit or the anticipated surface or subsurface activities of the proposed mining operations. The FTAA holder can select the mining area at its discretion and the same need not be one contiguous block.

The full term of a FTAA is 25 years with a renewal of 25 years. There are a number of periods within that time frame. It covers all activities.

1. Pre-feasibility period: this is a 2 year period from the end of the Exploration period where preliminary studies or further exploration occurs to evaluate and assess the economic value of the resource.

2. Feasibility Period: this is a 2 year period from the end of the Exploration period or Prefeasibility Period. During this period the Declaration of Mine Feasibility must be filed and a Mine Project Feasibility study done. It also requires a Development and construction work program, a survey of the mining area, an environmental clearance certificate and an environmental Protection and Enhancement Program for the Development and Construction Period.

3. Development and Construction Period: The development and construction period is the time between the approval of the DMF application and the Commencement of Commercial Production.

4. Operating Period: This commences a Commencement of Commercial Production until the termination of the FTAA. Thirty days before the end of the Development and Construction Period, the holder must submit a work program for the first 3 years of operations and subsequently every three years while the operations continue.

Exploration is permitted throughout the Operating Period.

The FTAA holder may withdraw from the agreement if in its judgement it is no longer economically feasible *"even after he has exerted reasonable diligence to remedy the cause or the situation. The Secretary may accept the withdrawal: Provided, That the contractor has complied or satisfied all its financial, fiscal and legal obligations."*

A FTAA may be suspended if the holder fails to comply with its terms or fails to pay taxes and fees. The Government will give the holder notice of suspension and the holder has 30 days to rectify any payment obligations or six months for nonmonetary issues, otherwise the suspension will be effective.

Termination of a FTAA is possible for a material violation by either party with regard to the following: the work program, Declaration of Mine Feasibility, renewal of exploration, non-compliance with approved programs, filing a materially false statement, failure to post a Rehabilitation Fund.

Under a FTAA easements are allowed for the use of timber, water and construction materials on the area covered. The holder has the right to employ foreign personnel but that is limited to technology requiring highly skilled persons. Training is required for a local for these positions.

A transfer or assignment of a FTAA is allowed in whole or in part by Section 40 but needs the approval of the President. The President must notify Congress on every FTAA assigned or transferred within 30 days of his approval.

2.2.3.3 Mineral Production Sharing Agreement

One type of MPSA allows for exploration and development called the Integrated MPSA. The exploration period is 2 years with renewals of 2 years for a total of 6 years for non-metallic minerals and 8 years for metallic minerals. If further exploration time is required, the Director of the Bureau may allow if the holder has completed the work program and the environmental program. Within the term of the exploration period the holder must file the Declaration of Mine Feasibility.

A MPSA grants the exclusive right to explore and conduct mining operations. The Government receives a share in the form of an excise tax which is equivalent to a percentage of gross output from the mining operation (which may change under the Executive Order initiatives). Under a MPSA, a mine must be constructed within 36 months from the approval of the Declaration.

The mining law allows for the termination of the MPSA by the holder under Section 31 which states:

"The contractor may, by giving due notice at any time during the term of the agreement, apply for the cancellation of the mineral agreement due to causes which, in the opinion of the contractor, make continued mining operations no longer feasible or viable. The Secretary shall consider the notice and issue its decision within a period of thirty (30) days: provided that the contractor has met all its financial, fiscal and legal obligations."

Any other termination provisions for these agreements would be in the agreements themselves as negotiated.

Both of the Agreements for mining require a negotiation between the company and Government. This means that there would have to be some good knowledge of the existence of a mineral resource particularly in the case of a MPSA.

Under the mining law a number of areas are excluded from mining. These are: ancestral lands unless consent is obtained from the local cultural community; public or private buildings, military or government reserves (unless permission is obtained in writing); cemeteries, infrastructure (rail, dams etc); plantation, old growth or virgin forest and areas covered by valid and existing mineral rights.

There is an occupation fee for mining of PHP 10 (\$US 0.23) per hectare per annum.

For an exploration permit, there is a charge of PHP 10 (\$US 0.23) per hectare per annum.

For MPSA and FTAA's there is a charge of PHP 50 (\$US 1.15) per hectare per annum.

2.2.4 Environment

The Department of Environment and Natural Resources is the lead agency for environmental protection and compliance. A Presidential Decree established an environmental impact statement process which must be followed by every proponent of a project. Property in an environmentally critical area or a project of that nature must receive a Environment Compliance Certificate (ECC) prior to commencing the project.

The EEC is a document that certifies that based on the representations of the holder a project or undertaking will not cause a significant negative environmental impact. It certifies that the holder has complied with all the requirements of an environmental impact statement and will implement its Environmental Management Plan.

One of the issues mining companies face is getting the Environmental Compliance Certificate and the mining permission. Often they receive the mining right but have difficulty getting the EEC - even though it is the same agency issuing both.

2.2.5 Executive Order

As mentioned previously, a recent Executive Order has added some uncertainty. This Executive Order outlines a number of new areas for the mining regime in the Philippines:

1. Areas closed to mining application: in addition to those in the law, it disallows it in prime agricultural areas; strategic agricultural and fishery zones, fish sanctuaries; tourism development areas identified in the National Plan; critical areas, island ecosystems. These are not defined and leave in question what areas these may be.

The EO provides that mining contracts, agreements and concessions approved before the affectivity of the EO will continue to be valid, binding and enforceable so long as they strictly comply with existing laws, rules and regulations and the terms and conditions of the grant thereof.

2. Full enforcement of environmental standards in mining as prescribed by existing laws, rules and regulations, are fully and strictly enforced, and appropriate sanctions meted out against violators.

3. Review of existing mining operations

4. Moratorium on the grant of new mineral agreements pending legislation. There needs to be legislation rationalizing existing revenue sharing. It allows the Bureau to continue to issue EPs and allows the grantees the right of first option develop and utilize minerals in their areas following the procedures in the law.

5. Establishment of Mineral reservations: Potential and future mining areas are to be declared Mineral Reservations but do not prejudice existing rights that may already be over the areas.

6. Competitive Bidding: the grant of mining rights over areas with known or verified mineral deposits and all expired rights areas, to be done through a competitive bidding system. This would include areas covered by denied

applications and areas of tailings and mine wastes. The first to file rule will apply to all other areas.

7. Development of Downstream Industries: there is to be a national program for developing value-added activities and downstream industries for strategic metals.

8. Disposition of Abandoned Ores and Valuable Metals: all defunct mining operations belong to the State and are to be developed through competitive bidding.

9. Creation of Mining Industry Coordinating Council: comprise of ministers and union representatives. This is to oversee the sector.

In March 2013, the Government lifted the moratorium for EP and FTAA's and allowed operations to resume. In May the Bureau advised that 126 mining applications had been received for 1,218 areas open for mining. Of these 59 covered areas where mining could not take place or did not meet requirements and 7 were accepted another 28 required corrections. The Bureau suggested it will take 6 months to issue the rights. According to the Bureau a lot of applications were not made because of the increased capital requirements for EPs and FTAA's. The new requirements are paid up capital of PHP 500m (US\$ 12.1) million. New fees were also implemented: EP PHP 300 (\$US 6.91) per hectare but not less than PHP 200,000 (\$US 4,605) per application and for FTAA PHP 300 (\$US 6.91) per hectare but not less than PHP 500,000 (\$US 11,512.25) per application.

Criticism of the Government has been focused on the lack of consistency in its policy and its actions with mining companies. An example was Philex Co which has operated in the country as its largest miner (nickel) had its MPSA cancelled by Government in 2001 and after 4 years the Government found that it was without basis and re-instated the MPSA. Xstrata which is proposing a \$US 5.9 billion gold-copper development has delayed the mine until 2019 due to security and government issues.

Despite its mineral potential, government actions and inactions, security issues, poor infrastructure all combine to discourage the kind of investment in exploration that the country should be attracting. Only 1.5% of the country is covered by mineral rights.

Recent announcements from the Government say that a rewrite of the Mining Act is ready to be tabled in the new Congress. Some details that would drastically increase government revenues may be problematic for the mining industry. The Executive Order did have a major impact on investment in the mining sector. According to Mining.com the country is now attracting less than \$US 500 million

in mining investment. Investment is down from \$US1 billion in 2010 to \$US 625 million in 2011.¹²

In 2012 the IMF stated that the Financial and Technical Agreement was not competitive internationally and that a new approach to the fiscal regime for mining and petroleum was needed.¹³

It is clear that the Philippines have a major mineral resource potential. It is unclear whether the changes which are coming will increase the confidence of major investors.

2.3 Australia: Western Australia

Western Australia is the prime mining state in Australia. In Australia the States have the constitutional jurisdiction over natural resources within their territory. Therefore each State has its own legislation and approach to the exploration and exploitation. Western Australia is Australia's main mineral investment destination with 54% of the total national mining capital spending. In 2012 Western Australia saw \$AU 2.053 billion (\$US 1.9 billion) in mineral exploration funds which was 64% of those expended in all of Australia.

In 2012 the total mineral and petroleum sales were \$97 billion of which sales for iron ore amounted to \$AU 51 billion (\$US 47.3 billion) with gold following at \$AU 9.4 billion (\$US 9.2 billion). The mineral industry in the State has grown at an annual rate of 27% over the five years from 2007-2012. Production of all minerals was up substantially in every category.¹⁴

In 2012, the State had 975 operating mines, 5,897 mining leases and 6,969 exploration licences.

Western Australia has maintained a very aggressive policy environment over the years. It is constantly striving for improvement in all areas – regulatory, geological as well as administrative. Because mining is such an important part of the State's economy, government is constantly reviewing its performance and ability to

¹² "New Philippines mining tax sees 10-fold revenue increase", Mining.com, June 5, 2013

¹³ See "Philippines: Reform of the Fiscal Regime for Mining and Petroleum" IMF Country Report No. 12/219, August 2012

¹⁴ According the Department of Minerals and Petroleum the value of base metals copper, lead and zinc was up 3%; mineral sands 59%; salt by 24%; diamonds by 29%; coal 7%; cobalt 53%, gold 13%; iron ore 12%

attract further exploration. It understands that to maintain the level of exploration it must compete world-wide for those exploration expenditures.

The State is owner of all minerals within its boundaries.

2.3.1 Taxation

In Australia the federal government imposes taxes. The taxes imposed in Australia are outlined in Appendix A of this Report.

In 2010, Australia's government attempted to impose a Mineral Resource Rent of 40% on all minerals produced. Mining companies, as well as the parliamentary opposition, reacted negatively saying such a tax would discourage mining in the country. An "ad war" ensued with the major mining entities paying some \$AU 22 million (\$US 21.4 million) in advertizing against the proposition (according to the Australian Electoral Commission). Some companies announced they would not proceed with new projects. The government responded with its own ads until the Prime Minister, Kevin Rudd, was replaced with Julia Gillard as Prime Minister. The ad war continued through the 2010 federal election after which the Prime Minister stopped the government ads and had talks with the mining industry.

The new proposal for the Mineral Resource Rent Tax, which passed in July 2012, only applies to iron ore and coal. It also is not levied on smaller companies which have less than \$AU 75 million (\$US69.5 million) in mining profits. The tax is 30% with an extraction allowance of 25% which makes the effective rate 22.5%. It is deductible against corporate income tax and State royalties. The government in 2012 announced it expected revenues of \$AU 3 billion (\$US 2.8 billion). However, the most recent figures demonstrate that receipts are in the \$AU 200 million (\$US 185.3 million) range.

Australia's States, as owners of the minerals, impose a royalty. In Western Australia the Mining Act imposes a royalty payable on all minerals. The title holders must submit all production reports and royalty returns. There are two systems of royalty collection:

- a specific rate - flat rate per tonne - this is levied on low value construction materials. Between 1 July 2010 and June 30 2015 it is levied at 62 cents per tonne for construction use and 100 cents for all other uses. It will be reviewed in 2015,
- ad valorem - a percentage of the value - the value is calculated as the "royalty value" of the mineral and applies to all minerals,
- "Royalty value" is defined as " in a mineral other than gold, means the gross invoice value of the mineral less any allowable deductions for the minerals",

- "Gross invoice value" is defined as the "amount obtained by multiplying the quantity of the mineral in a form which is sold, for which payment is made."

Allowable deductions are transportation if exported; if not exported the price paid by the title holder for packaging the minerals used in transportation.

The amounts of the royalty are 7.5% of the royalty value for bulk material; 5% of the royalty value for concentrate material and 2.5% for metals.

Western Australia has a payroll tax of 5.5% on salaries over \$AU 62,500 (\$US 57,917).

Capital gains is payable in Australia at a rate of 50% of the cost base which is set on the consumer price index and frozen at 30 September 1999.

2.3.2 Administration

The minerals sector is administered by the Department of Mines and Petroleum. Specifically, the State has a Warden system. The Warden is responsible for the administration of titles and holds a court where there are public hearings on all mineral titles applications except the Miner's Right. The Warden is a stipendiary magistrate. The court can hear all actions, objections, suits and other proceedings connected with the mineral titles including enforcement of contracts; awarding compensation or damages; appoint receivers; consider and determine objections; determine the area; dimensions of boundaries of any mineral title; determinations of partnership issues; the dissolution of mining partnerships; partition, sale, disposal or division of any mining property or conflicts pertaining to same; as well as cessation or suspension of mining operations that are likely to cause injury. Section 134 (5) demonstrates the power of the Warden and the importance of the position.

"Subject to this Act and without affecting the jurisdiction of a Warden's court, a warden's court has and may exercise in relation to any all matters relating to any civil proceeding under this Act the like powers and authorities as are conferred on the Supreme Court of a Judge thereof."

The Act goes into great detail on the manner of proceedings but what is important here is that there is a mechanism for ensuring there is transparency regarding all applications and any matters arising from them that is singular to the mining sector. It is also another example of the lack of political input into the grant of mining titles and issues arising from the grant of a mineral title. The Minister grants an exploration licence but must consider the recommendation of the Warden, which is made after the public hearing. It makes it very difficult for a Minister to deny the grant of a title if the Warden had recommended it after a public hearing.

One of the key roles of the Department is to provide timely mining title approvals processes. All titles are registered. The Mineral Titles Division is responsible for the administration of mining titles and the maintenance of the registry system. Mining titles can now be applied for and dealt with on-line including the payment of any fees by electronic transfer.

The Department of Mines and Petroleum has instituted performance measures to meet deadlines in approval processes for mining titles. Every quarter it publishes the approval performance reports, which outlines the applications received, percentage processed, and an analysis of performance areas. The Department can then monitor workloads, identify emerging trends and allocate resources where they are needed most.

In the first quarter of 2013 the Department received 1,004 applications for mineral titles - 676 for ELs and 243 for PLs. It finalized 98% of the ELs within the target of 65 days. It received 557 Programs of Work Program applications and 92% of these were approved within the 30 day time frame. It approved 76% of the mining proposals in 30 days. One of the aspects which discourage investment is the approval time it takes to be issued a mining title. By setting targets and meeting those targets, the Department is increasing its effectiveness and efficiency and thereby increasing mineral investment interest.

On- line lodgment has increased the ability of the Department to deal with approvals. Every tenement plus environmental proposals and work program proposals can be made on line. From 1 July 2013 everything will be lodged online with no more paper submissions. According to the Department this *“provides more certainty and reduces approval timelines for proponents and reduces administrative handling and costs for the government.”* Companies can now follow on-line the progress of their Reports and applications and the public is now able to see how resource companies are responding to their responsibilities. It is also identifying problems and adding additional automation by improving its usability and increasing transparency of approval processes.

The Government of Western Australia has also established a “lead agency framework”. The Department of Mines and Petroleum is the lead agency for coordinating the approval application system in the minerals sector. It is therefore responsible for the required liaison with other Departments. This process is meant to establish an efficient approvals process. DMP achieves their objectives by utilizing application tracking and approval management systems, provide “case management” services for more complex proposals, and to continue to improve its own process. Case management is important as it allows for the appointment of an officer to assist in the resolution of bottlenecks in the system, negotiates

approval timelines across government, and detailed pre-lodgment project scoping.

2.3.3 Exploration

2.3.3.1 Miners Right

A Miner's Right allows a holder to prospect on Crown land, to take and keep samples and specimens of ore or minerals up to 20 kilograms. It does not allow mining operations. Entry on certain classes of Crown Land is restricted. The holder may "fossick"¹⁵ on land that is covered by a mining tenement as long as the holder of that tenement has consented. It is not allowed on private land or reserve land. The holder may prospect for minerals, conduct geological mapping, conduct tests for minerals, undertake limited sampling, mark out mining title areas, fossick, and take water from the land and camp for the duration. The use of explosives is not allowed and only tools that are not mechanized can be used. The holder is obligated to take care of the area, rectify any disturbance to the land, not obstruct roads nor remove fencing, timber. The Miner's Right is not transferable. The area is not defined in the law but is specified in the individual right.

The holder applies to the Mining Registrar's Office and a Miner's Right is granted upon fulfilling payment of a fee of \$25 (\$US23.17) with proof of identity. It can be granted by the Minister, the Director General of Mines or a mining registrar. It can be held by an individual or company.

2.3.3.2 Prospecting Licence

An application for a prospecting licence is made at any Mining Registrar's Office or electronically. There is an application fee and rental is payable. It is granted by the mining registrar or Warden. The maximum area is 200 hectares. There is no limit on the number of PL's a person or company may hold. There is a security of \$AU 5,000 (\$US 4,600) required for each PL.

It cannot be granted over land that is already subject to a mining title.

The term is 4 years with a renewal of 4 years, with a provision to extend for another 4 years if the Minister allows it to be subject of a retention licence.

The application fee is \$AU 292.30 (\$US 270.87). Rent on the property is \$AU 2.25 (\$US 2.09) per hectare minimum \$AU 22.50 (\$US 20.83)). The Minimum annual

¹⁵ "Fossick" means to search for, remove rock, ore or minerals other than gold or diamonds not exceeding 20 kilograms for a mineral collection, lapidary work or hobby interest by use of hand tools only. Mechanized equipment metal detectors etc are not allowed.

expenditure is \$AU 40.00 (\$US 37.07) per hectare minimum \$AU 2,000 (\$US 1,853).

The holder is able to extract or disturb up to 500 tonnes of material from the ground, including overburden, and the Minister may approve larger tonnages if it can be proven this is needed.

Any minerals found that have an economic interest must be reported to the Minister. The holder may not use ground disturbing equipment unless there is a program of work that has been approved and a fee has been paid. Any disturbances to the land must be rehabilitated. There is no survey of the area required unless a dispute arises with respect to boundaries and then the Warden or the Minister may require a survey. The licensee can excavate, extract, and remove soil, minerals and not exceeding 500 tonnes of material. Larger tonnages may be approved by the Minister.

2.3.3.3 Special Prospecting For Gold (SPL)

This title is granted to a prospector who wants access to alluvial gold deposits. It is limited to an area of 10 hectares and a depth of 50 meters unless the Minister agrees it can be deeper. A person cannot hold more than 10 SPLs. It can be marked out in an area where there is an existing prospecting licence or exploration licence that is in force for 1 year if the holder can show that the activities will not cause “undue detriment” to the activities of the PL or EL holder and those holders have notice. It can also be held over a pre-existing mining lease if the lease holder consents. It has a term of 3 months, renewable in multiples of 3 months up to a maximum of 4 years. It cannot be extended or renewed beyond that time.

If the primary title holder objects, the Warden must determine whether there would be a detriment to the pre-existing right. A report from the Executive Director of the Geological Survey must be obtained before the Warden can make that determination. If the Warden refuses the application, the applicant has 14 days to appeal to the Minister who may uphold or overturn the Warden’s ruling.

The application fee is \$AU 292.30 (\$US 270.87). The rent is \$AU 22.50 (\$US 20.83) with minimum annual expenditures of \$AU 2,000 (\$US 1,853).

The SPL can be converted to a Mining Lease for gold provided all obligations were complied with.

No transfer is allowed unless the primary title holder consents.

2.3.3.4 Exploration Licence

An exploration licence is granted for the purpose of undertaking a more detailed exploration assessment of the area. A graticular¹⁶ EL It is limited to 70 blocks, except where the area is not designated mineralized, it can be 200 blocks. A non-graticular EL is 200 km² with a minimum of 10 km². The application is made at a Mining Registrar's office or electronically. An application fee and rental is payable. There is no limit to the number of licence a person or company may hold but there is a security deposit of \$AU 5,000 (\$US 4,634) for each EL.

Non-graticular ELs have a term of 5 years, renewable for 2 periods of up to 2 years and further periods of 1 year.

Graticular ELs granted after 2006, have a term of 5 years plus a possible extension of 5 years and further extensions of 2 years thereafter. The holder must surrender 40% of the area at the end of year six. The holder may extract or disturb up to 1,000 tonnes of material or more if the Minister approves.

There is no application fee for a non-graticular EL. The rent is \$AU 44.70 (\$US 41.42) per km² for years 1-7 and \$AU 150.60 (\$US 139.56) for subsequent years. The minimum work expenditure is \$AU 300 (\$US 228) per km² with a minimum of \$AU 20,000 (\$US 18,530). Extensions years 6 and 7 are \$AU 50,000 (\$US 46,301) per year; thereafter \$AU 100,000 (\$US 92,601) a year.

The cost for applying for a graticular EL is \$AU 1,232.90 (\$US 1,142). The rent is \$AU 116.70 (\$US 108) per block for years 1-3; \$AU 181.45 (\$US 168) for years 4 and 5; \$AU 246.20 (\$US 228) for years 6 and 7; and \$AU 466.20 (\$US 432) for year 8 and beyond.

¹⁶ In 1999 Australia adopted the Geocentric Datum which is the best representation of the land mass of Australia. Western Australia adopted this and ELs have been issued as graticular blocks which is 1 minute latitude by 1 minute longitude with each block having unique alpha numeric identifier. The boundaries of all existing Mining Leases/Licences that were physically defined on the ground by survey or by applicants pegging retained their existing position under GDA. (ie their ground position does not alter). However, the coordinate values of these positions altered by approximately 200 meters (equates to approximately 5" in latitude or longitude).

Minimum working expenditures for the graticular EL are

Years 1-3	Years 4-5	Years 6-7	Year 8 and beyond
\$1000 (\$US926)per block Minimum	\$1500 (\$US1389)per block Minimum	\$2000 (\$US 1852) per block Minimum	\$3000 (\$US2778)per block Minimum
\$10,000 (\$US9260) for 1 block	\$10,000 (\$US9260) for 1 block	\$15,000 (\$US 13890)for 1 block	\$20,000 (\$US18520)for 1 block
\$15,000 (\$US13890)for 2-5 blocks	\$20,000 (\$US 18520)for 2-5 blocks	\$30,000 (\$US27780)for 2-5 blocks	\$50,000 (\$US46301)for 2-5 blocks
\$20,000 (US\$18520)for 6- 20 blocks	\$30,000 (\$US27780)for 6-20 blocks	\$50,000 (\$US 46301)for 6-25 blocks	\$70,000 (\$US64821) for 6-23 blocks

The minimum work expenditures are increased over the life of the EL in order to encourage the title holder to focus efforts on the most prospective areas and turn over land they are not using.

The Minister, on the recommendation of the Warden, approves an EL. A program of work and expenditure is required and technical and financial resources available if the Elis over 4 blocks. Any disputes regarding the grant of an EL are dealt with in the same way as a PL. It is also subject to the same environmental conditions as the PL.

The EL must have been granted for one year before a transfer or other legal or equitable interest can be unless the Minister's approval is given.

An EL may be cancelled if the rent is not paid; program of work is not adhered to , terms and conditions are not complied with, requests for information are not complied with or the holder is convicted of an offence under the Mining Act.

Section 67(1) of the Mining Act gives priority to the exploration licensee for a mining lease

"The holder of an exploration licence has — (a) Subject to this Act and to any conditions to which the Exploration licence is subject; and (b) While the exploration licence continues in force, the right to apply for, and subject to section 75(9)¹⁷ to have granted pursuant to section 75(7), one or more mining leases one or more general purpose leases or both in respect of any part or parts of the land the subject of the exploration licence."

¹⁷ Section 75(9) deals with the application for a mining lease if it is in an area that is a marine nature reserve marine park or marine management area.

The holder of an EL must keep complete and detailed records of surveys, operations, mineral finds and so on and provide those to the Minister and provide reports on its work program and expenditures as required by the licence.

Under the law, the holder may apply for retention status. The Minister may allow for this status if there is an identified mineral resources located in the area and the mining of that mineral resource is impracticable because it is *“uneconomic or subject to marketing problems “* though it may become economic or marketable in future or the resource is required to sustain future operations of an existing or proposed mining operation or there is *“an existing political, environmental or other difficulties in obtaining requisite approvals”* [Section 69B (1)]. The approval can be for all or some of the land. If for just a part of the land, that land remaining continues under the exploration licence. The Minister may impose a program of work on the retained area which can be varied or cancelled at any time. At any time the Minister may require the holder of the retained area to *“show cause why a mining lease should not be applied for...”* (Section 69F.1).

The Minister may also grant a retention licence over an area for the same reason as a retention status. As with any licence there is a warden’s hearing and objections may be made. A retention licence is for 5 years with a renewal of 5 years and a program of work must be approved. It can be transferred with the Minister’s approval. The holder of a retention licence has the right to a mining lease in priority over anyone else.

2.3.4 Environment

Another interesting aspect in Western Australia is the fact that the Department has an Environment Division responsible for:

- Administering environmental aspects of mineral legislation,
- Providing environmental assessment, audit and monitoring services for the resources industry,
- Providing incident investigation services and initiating the Department’s enforcement policy,
- Liaising with core stakeholders and measure performance.

Environmental applications are filed on-line and can be tracked through the approval process by both the proponent and the public. The Department is also responsible for safety and health and enforcement of safety regulations.

The Division has a Quality Management System. Environmental approvals are granted under the Mining Act. Clearing permits are issued under the Environmental Protection Act oversee by the Department of Environment and Conservation.

Land access is overseen by the Tenure and Native Titles Branch. Guidelines for the consultation with indigenous people and the right to negotiate have been issued. There are numerous pieces of legislation in Australia regarding native title and land access. For mining purposes the Department of Mines and Petroleum assists companies in their dealings with native land access.

2.3.5 Other Policy Initiatives

The Government of Western Australia is one which is constantly improving its ability to attract more mining endeavors to its State and maintain its world-class competitive edge.

In 2012 it commenced a reforming Environmental regulation program. The reforms intend to address transparency, eliminating duplication across government and approval timelines as well as establishing clear environmental objectives. It will establish new mines Rehabilitation Fund and specify how that will be calculated and managed.

The Government has a very strong Geological Survey which it considers to be a primary attraction for new exploration. The Minerals Council of Australia stated in its submission to the Productivity Commission, a federal agency, that “world leading geosciences has been a key competitive advantage of Australia’s exploration sector and emerging mining regions are moving quickly to emulate this success.”¹⁸

In 1995 the Government established the Western Australia Mineral and Energy Resource Institute to encourage mining and energy industries within the State by fostering and promoting all aspects of mineral and energy research. In 2012 it established a Minerals Research Institute with \$7.5 million over 3 years to bolster research in Western Australia which will “focus upon researching new technologies that foster improved exploration techniques and promote new processing methods...”¹⁹ to “promote the long-term competitiveness of Western Australia’s mining industry”. Minister Norman Moore, when announcing the Institute said:

“The research will promote the long-term international competitiveness of WA’s minerals industry through innovation, increased productivity and investment attraction. The mining industry is a finite industry and its long-term survival depends on the discovery of new resources and the

¹⁸ Minerals Council of Australia, Submission 27 to Productivity Commission page 32.

¹⁹ Minerals and Energy Research News, Vol 31, No 2, July 2012, Western Australia

development of new technologies. These new technologies will play a vital role in making previously uneconomic deposits attractive to industry and the establishment of this institute represents a strategic model to support the future sustainability of the State's minerals industry ...²⁰

The government has also established a \$900,000 (\$US831,331) grant to develop a research initiative that will result in a rapid transfer of new geosciences concepts, skills and technology in the exploration industry.

In addition the Government initiated the Exploration Incentive Scheme (EIS) to encourage exploration in Western Australia. It is an \$80 million (\$US74.2 million) scheme over five years. The program is managed by the Department of Mines and Petroleum. It is made up of six programs:

1. Exploration and Environmental Coordination in DMP - \$1.5 million (\$US1.4) (to improve on line tenement applications processes.
2. Innovative Drilling – \$26.9 million (\$US24.9 million) to support innovative drilling techniques and practices in green field areas.
3. Geophysical and Geochemical Surveys - \$32.5 million (\$US30.1 million) to provide new data through airborne geophysics, seismic, gravity and geochemical surveys.
4. Geological Mapping - \$13.8 million (\$US12.8 million)to develop a system that allows all geosciences databases to be accessed online.
5. Promoting Strategic Research with Industry - \$2.3 million (\$US 2.1 million) to support the rapid transfer of new geosciences concepts, skills, and technologies into the minerals exploration industry.
6. Sustainable Relations with Indigenous Communities - \$3 million (\$US2.8 million)to provide initiatives to assist indigenous and environmental approvals for exploration and production.

The Western Australian government through its Department of State Development International Trade and Investment has a dynamic program to attract foreign companies specializing in support services for the resource industries. In the last 2 years it has attracted 85 global companies to set up business in the State. Rather than seeing this foreign investment as a threat, the government stated that

“The arrival of more international companies brings a number of benefits to the State, including knowledge transfer; research and development

²⁰ Speech by Minister of Mines and Petroleum, Norman Moore, May 16, 2012

activities; and new technologies, while opening pathways for future global expansion through trade and network development.”

Recently on May 31, 2013 the Productivity Commission, a federal independent research and advisory body on social, economic and environmental matters, filed a Draft Report entitled “Mineral and Energy Resource Exploration” as previously cited. Public hearings on the report will commence in June 2013.

It is examining the barriers faced by exploration companies with regard to non-financial barriers on the international competitiveness and economic performance of Australia’s exploration sector. It is obvious that Governments in Australia recognize that technology, geosciences and initiatives connected with them are key to sustaining and growing their minerals sector. Western Australia is one of the most dynamic jurisdictions in the world which recognizes what must be done to grow exploration thereby sustaining and growing their vibrant economy.

2.4 Sweden

Sweden is one of the prime producers of minerals in the European Union. In 2011, it produced 80% of the iron ore and large amount of the copper zinc and silver. In 2010, mining contributed SEK 26 billion (\$US 3.9 billion) to the Swedish GDP. In the same year 13% of all industrial investment was in the mining sector. Exploration investment in 2011 was SEK 783 million (\$US 1171 million) - a 14% increase over 2010. It was expected that similar growth in exploration investment would occur in 2012. The number of exploration licences in 2012 was 1114.

Through innovation and rapid investment in technological research, Sweden has become one of the leading suppliers of mining equipment world-wide.

The Swedish Government’s objective is to triple mineral production by 2025 - this would equate to 3-5% of GDP growth and over 20% of the industrial investment. Mining is seen as an economic generator in the rural areas of Sweden, particularly in the north. The Geological Survey of Sweden was tasked in 2003-2005 to lead a development program for industrial minerals, aggregates and natural stone. Thirty projects were undertaken with the budget being shared by companies in those sectors at 80% and government input at 30% of the overall budget of \$SEK 49.3 million (\$US 7.4 million).

Approximately 60% of the exploration rights are in northern Sweden which is largely unexplored.

Sweden has a state-owned company, LKAB, which operates the world’s largest underground iron ore mine. It is a publicly listed company and is treated no

differently than private sector companies. In May 2013, it announced that it is doubling its exploration budget in Sweden's Arctic to \$US 30 million annually.

The Fraser Institute Report has indicated that Sweden is considered second in the world on the Public Policy Index as a good place to invest in mining.

In February 2013, the Government announced a new Minerals Strategy. The five strategic objectives are:

1. A mining and minerals industry in harmony with the environment, cultural values and other business activities.
2. Dialogue and cooperation to promote growth and innovation.
3. Framework conditions and infrastructure for competitiveness and growth.
4. An innovative mining industry with an excellent knowledge base.
5. An internationally renowned, active and attractive mining industry.

Under these objectives, the strategy has numerous matters to be addressed:

- greater resource efficiency,
- better dialogue and synergy with other industries,
- mining communities with attractive natural and cultural environments,
- promotion of societal and regional growth,
- clearer distribution of responsibilities and a better flow of information among industry participants,
- a clearer more effective regulatory framework,
- infrastructure investment for growth of the industry,
- research and innovation that creates growth and competitiveness,
- a good supply of capital and promotion of investment,
- skills supply that meets the needs of the industry and the regions.

The entire government is involved in developing the legislation and programs to achieve these goals.

2.4.1 Taxation

Sweden's tax environment is outlined in Appendix A to this Report.

Sweden recently lowered its corporate tax rate to 22% on profit in order to be competitive. There is no special tax on mining. The Minister of Enterprise, Energy and Communication has already stated that there will be no new taxes on the industry in order to maintain international competitiveness.

Sweden has withholding taxes as follows: Dividends - 30%; royalties - 0%; interest - 0%. Usually dividend withholding tax is waived under double tax treaties.

There is a capital gains tax in Sweden which is set at the corporate tax rate. There are no capital gains on qualifying shareholdings if held for business purposes.

2.4.2 Administration

Mining comes under the Ministry of Enterprise, Energy and Communication. The two main mining agencies are the Minerals Inspectorate and the Geological Survey of Sweden.

The Geological Survey is responsible for managing the geological information in Sweden. It investigates and studies geology does mapping and provides all geological studies. It also monitors international minerals markets and maintains statistics on mineral production. It is responsible to identify potential areas that could result in finding economic deposits. It collects basic geological data concerning Sweden's bedrock geology and properties of rock. Information related to prospecting obtained through government surveys and private exploration, is accessible through The Mineral Resources Information Office (MINKO). Most information is accessible online where maps can be produced on request for specific purposes and received in digital form or as hard copies. The results from such analysis have to be submitted to MINKO and will be made public after a period of time. When an exploration permit is terminated without the granting of an exploitation concession within the exploration area, the holder of the permit must submit a summary report within three months. The Geological Survey does not do its own exploration. It derives its information from private sector exploration data.

The Minerals Inspectorate conducts licencing, inspection and information services with a view of facilitating the exploration and exploitation of mineral substances, mainly ores, in accordance with the Minerals Act, preventing mismanagement, promoting ecologically balanced exploitation of Sweden's mineral resources, and preventing people and property from being injured or damaged by mining operations. The Chief Mines Inspector is the senior official charged with overseeing the responsibilities of the Inspectorate.

The Minerals Act 1991 and Minerals Ordinance 1992 outline the system for obtaining exploration rights in Sweden. As stated previously, applications for exploration permits under the Minerals Act are administered by the Minerals Inspectorate. The Swedish government makes decisions in matters of particular public interest. The local municipality is responsible for permissions in accordance with the Planning and Building Act. Permissions required by the Environmental Code are handled by the Land and Environmental Court. Supervision of compliance with the environmental conditions is usually carried out by the County

Administrative Board and by the municipality's Environment and Health Board. All of this is required before a permit is issued.

2.4.3 Exploration

There is only one title for exploration – the exploration permit. It can be issued to anyone applying whether Swedish or foreign. It can be over a *“such area as the permit holder may be assumed to be able to explore in an appropriate manner and be of a suitable shape for the intended purpose”*. It is granted if it is reasonable to assume that the permit will lead to a discovery of minerals. It will not be if a person *“manifestly”* lacks the ability to explore or has previously demonstrated they are unable to explore.

The law clearly states that the application first submitted will have precedence. However if two applications are received over the same area on the same day the two applicants will have equal rights in respect to the area of their application. If a person has an exploration permit for a particular mineral, no other person can have a permit for that mineral but can receive a right to explore for other minerals in that same area.

In Sweden, a property owner or someone with their permission can explore their own land without a permit (except for gas and oil and diamonds).

The term for an exploration permit is 3 years and it can be extended for not more than another 3 years if exploration is still being carried out. The Chief Mines Inspector has the authority to extend the permit for another 4 years if there are *“special”* circumstances or in the case of *“extraordinary”* circumstances another 5 years. This is allowed if more work on the property would result in the grant of an exploitation concession. Any application for an exploitation licence must be during the validity of the permit.

Applications must be made to the Chief Mines Inspector and must contain the name and particulars of the applicant, the mineral or minerals, area, circumstances that suggest the area could lead to a discovery, the impact of the operations on public and private interests and measures to protect those interests, and the particulars of the property and the owners of that property or those affected. In addition they will include a plan for the exploration work and their capacity to carry out that plan. If for some reason the application is not complete, the Chief Mines Inspector will order the applicant to rectify the matter within a period of time. If they fail to remedy, the application lapses.

The exploration work plan outlines the area over which the permit is to be issued, the time frame for the work, and how that work may affect a public interest. Objections to the plan must be made within 3 weeks of the operations after the

plan is received. The plan becomes valid if there are no objections. It also becomes valid if the applicant and any affected party who objects reach agreement. If there is no agreement the permit holder can ask the Chief Mines Inspector to confirm the plan and it will be valid *if “the measures set out in it.. are necessary for appropriate exploration and do not cause the property owner or affected party inconvenience of a magnitude as to outweigh the holder’s interest”* to carry out the work.

An applicant pays an application fee and an exploration fee to the Mining Inspector at the same time as the application is submitted. The application fee is SEK 500 (\$US 74.16) for each exploration area and every new 2,000 hectares of each area. The exploration fees are related to the area of interest.

For the first three years exploration period the fees are as follows:

- For diamonds, oil and/or gaseous hydrocarbons SEK 2 (\$US 0.30) per hectare;
- For other minerals SEK 20 (\$US 2.99) per hectare.

The minimum fee is SEK 100 (\$US 14.94) and it covers the entire three-year period of validity.

If the period of validity is extended, the fee for years four to six is:

- For diamonds, oil and/or gaseous hydrocarbons SEK 2 (\$US0.30)per hectare and year;
- For other minerals SEK 21 (\$US3.14)per hectare and year.

The minimum fee is SEK 200 (\$US30).

Further extended periods have still higher fees.

All fees are paid in advance for the exploration period or the extended period. If an area is reduced during the exploration the fee will be partially reimbursed.

Transfers, assignments and other encumbrances are allowed as are amendments. With regard to a transfer, the applicant must make a written application outlining the transferee and their details. The transfer is granted by the Chief Mines Inspector. Permit holders are also responsible for payment of compensation for damages which might occur to the land as it affects the owners or affected parties.

Chapter 6 of the law allows a holder of the exploration permit to wholly or partly relinquish the licence by notifying the Chief Mines Inspector and the permit shall cease to exist for that portion one month from the date the notification was received by the Chief Mines Inspector.

The exploration permit can be revoked by the government if the holder has failed to fulfill its obligations in the permit or its work program or for "*other exceptional reasons*" (Chapter 6, Section 3).

There are a number of provisions outlining where mining cannot take place: these include national parks, cultural or heritage reserves, burial areas, and close or industrial infrastructure, or railways or highways. In addition, it cannot be granted on land within a protected area of an exploitation concession (1,000 meters from the boundary of the concession). However if the mine does not go into operation for 3 years of the grant of that concession, the Chief Mines Inspector can grant the permit within the protected zone until operations begin.

The Chief Mines Inspector must keep a journal in which he registers all applications and anything that occurs pertaining to those applications. In addition, there is a register for all permits and concessions, all decisions relating to those rights, such as transfers and any court decisions that may pertain to those rights.

Permit holders can relinquish areas but it is not mandatory. They must provide reports on the exploration work when the permit ceases to be valid without an exploitation concession being granted. This must occur within 3 months of the expiration of the permit. They must also prepare maps and keep records of all transaction pertaining to the permit.

Compensation is payable for any damage to third parties under the Mineral Ordinance.

It is clear that the licencing process in Sweden is non-political. All discretions under the Act are given to the Chief Mines Inspector and there is no political input in the process or granting of licences.

2.4.4 Environment

Sweden has established a objectives system and designated a number of agencies as responsible for environmental performance in the country. The Environmental Code and Nature Conservation Act are the two main pieces of legislation. An environmental impact assessment must be undertaken for any hazardous activity. If it is a large project of significant impact the Government will grant the licence. In 2011 Sweden established five Land and Environmental Courts in areas of the country. They deliberate on all applications regarding environment and water issues. They must approve the application before a project begins.

2.4.5 Dispute Resolution

The Minerals Act outlines numerous appeal provisions.

Chapter 8 states that the Chief Mines Inspector shall, on application, consider disputes between permit holders and property owners or other holders of mining rights. Disputes regarding compensation are also considered by the Chief Mines Inspector and he may engage experts or make on site inspections. The permit holder must reimburse the State for its costs and the owners or other affected parties if they are at fault.

2.4.6 Other Initiatives

The Geological Survey of Sweden awards grants each year for targeted basic research and applied research in the geosciences.

From 2006 - 2010, a Mining Research Program was instituted to improve knowledge in the geoscience area.

The Swedish Mining Research Foundation receives funds from government and industry. It funded 11 projects for a total of €11 million (\$US14.4 million). The areas where the Foundation is concentrating research are:

- a) securing a supply of raw materials through exploration
- b) improved competitiveness through development of production technology
- c) increased knowledge in processing
- d) resource-efficient extraction
- e) reduced environmental impact of mining

Lulea University of Technology receives government funding for its Centre of Advanced Mining and Metallurgy and its Nordic Mining School. It recently received €22 million (\$US 28.8 million) from the Ministry of Education and Research for minerals research.

Sweden has an excellent legal framework for mining with highly competent authorities, free from corruption, and with a general positive attitude to the industry. In particular, there are no obstacles to foreign companies entering the Swedish market on a level playing field with domestic investors.

There is, however, a problem in Sweden regarding the timeliness of issuance of licences. This is due to the backlog of cases at the environmental courts. There is a serious shortage of staff needed to handle the great number of permit applications and appeals are building up as a result of the mining boom. In particular the northern court, where a majority of the applications are handled, now needs at least two years to process an application. In order to commence work on an exploration area, a mining title holder must have the environmental court approval. It is obvious that this problem has a risk of hampering

investments in Sweden unless measures are taken by the government to expand the resources of the courts. The problem has been acknowledged and in March 2012, the Swedish parliament instructed the government to produce the new minerals strategy including appropriate means of dealing with the workload of these courts.

2.5 Ghana

Ghana is the tenth largest gold producer in the world (second in Africa), the tenth in bauxite and 9th in diamonds and manganese. The Ghanaian mineral sector employs 20,000 people directly and approximately 500,000 in small scale gold, diamond and quarrying and 6000 in mine support services²¹. It accounts for approximately 13% of total government revenue and at 42% of export merchandise is the country's largest export. Agriculture is still Ghana's largest industry providing 33% of GDP, while industry - mining, manufacturing, construction and electricity provide about 30% of GDP - 5.5 % is attributed to mining. Investment in the minerals sector is estimated between 1994 and 2008 at \$US6.7 billion.

Oil was discovered in Ghana in 2007 and it is estimated that the country will become Africa's third largest producer in the near future.

Mining has been carried out in Ghana for centuries. In the 19th century the British defeated the Ashanti Kingdom and established a colony which it aptly called the "Gold Coast" for obvious reasons. The country became independent in 1957. In 1966 the military overthrew the government and there were shifting military and civilian governments until 1992. Since that time there has been democratically elected governments with peaceful elections and changes of government.

During the 1970's the mining industry in Ghana declined. In 1983 the government commenced an Economic Recovery Programme which, in part, commenced steps to revive the mineral sector.

A new mining law was passed in 1986 and administrative changes were made to promote the industry for foreign and domestic investment. The industry continued to increase in importance and Ghana has been recognized as a stable place to invest.

Ghana has an active exploration community with some 250 local and foreign exploration companies working in the country.

²¹ Investors Guide, Ghana's Mining Portal, Government of Ghana.

In 2006, Ghana passed Act 703, an update of the 1986 law to encompass international best practices. This new law continued the principles in the 1986 law whereby ownership of minerals is vested in the government and the law applies equally to both foreign and national companies. It reserved small scale mining for Ghanaian citizens but does allow foreign investment if it is over \$US 10 million.

In 2010, the Government issued a new Mining Policy document. In it the government outlined its eighteen guiding principles for the mineral sector

1. *Ensuring that Ghana's mineral endowment is managed on a sustainable economic, social and environmental basis, with due regard to internationally accepted standards of health, mine safety and environmental protection;*
2. *Fostering the development of a mining sector that is integrated with other sectors of the national economy, which will contribute to the economic empowerment of Ghanaians by generating opportunities for local entrepreneurship, increase demand for local goods and services and create employment for Ghanaians;*
3. *Application of modern principles of transparency and accountability to the administration of mining laws and regulations;*
4. *Ensuring an equitable sharing of the financial and developmental benefits of mining between investors and all Ghanaian stakeholders;*
5. *Respect for the rights of communities that host mining operations;*
6. *Encouraging local and foreign private sector participation in the exploration for, and commercial exploitation of, mineral resources;*
7. *Recognising the need to establish and maintain:*
 - a. *a conducive macro-economic environment for mining investment; and*
 - b. *a predictable regulatory environment that provides for the transparent and fair treatment of investors;*
8. *Ensuring availability and dissemination of geo-data necessary for the promotion of minerals sector investment;*
9. *Incorporating in the licensing system an early focus on mine closure planning to anticipate and provide ahead for environmental, social and economic consequences;*
10. *Promoting additional and alternative livelihoods in mining communities.*
11. *Supporting the development of Ghanaian mining skills, entrepreneurship and capital by encouraging and facilitating the orderly and sustainable development of small-scale mining in precious and industrial minerals;*
12. *Empowering Ghanaians to become professional miners, mine managers and owners by maximising opportunities for minerals-related education, training, career development and other support;*
13. *Respect for employee, gender and human rights in mining, and the removal of obstacles to participation in the mining sector on the basis of gender, marital status or disability.*
14. *Encouraging a more pro-active role for women in decisions relating to minerals and mining at the national, local and firm level;*

15. *Encouraging mining companies to develop a participatory and collaborative approach to mine planning, development and decommissioning, taking into account the needs of local communities;*
16. *Developing streamlined and effective institutional arrangements for the mining sector, together with adequate capacity to gather, analyse and disseminate geo-data, and promote, authorise, monitor and regulate mining operations;*
17. *Facilitation by Government institutions of community participation among other things by removing impediments to free expression and providing for the dissemination of information to the public on all aspects of mining as a basis for informed participation;*
18. *Acting in harmony with regional and international partners and, to this end, 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, including banning trade in minerals from illicit sources.*

2.5.1 Taxation

Ghana's taxes are listed in Appendix A to this Report. Ghana recently increased its corporate tax rate to 35% on mining companies and also established an additional windfall tax on mining companies of 10% (windfall is considered profits over what was estimated by the company).

There is a flat rate ad valorem royalty on all mineral products of 5%.

Ghana has a capital gains tax of 5% on chargeable assets.

Withholding taxes are as follows: dividend and interest - 8%; royalties, natural resource payments and rents - 10%; management and technical service fees - 15%; goods and services - 5%; branch remittances - 10%. These rates may be exempt or lower depending on double tax treaties signed by Ghana.

2.5.2 Administration

The Ministry of Lands and Natural Resources is responsible for the mining sector in Ghana. It ensures the efficient management of mineral resources and develops policy and promotes exploration, exploitation and production.

The Minerals Commission, an agency of that Ministry, is responsible for regulation and management of the development of mineral resources and the coordination and implementation of legislation and policy. It is responsible for mineral rights oversight, recommendations to the Minister, monitoring of all operations (including inspection for health and safety and environment) and liaison with all other agencies.

The Geological Survey is the main repository for all geoscience and geotechnical data and is responsible for the study of the country's mineral resources.

Under the Minerals Law, Section 4, the Minister may reserve any lands from mining.

About 80% of the land ownership is traditional (tribal) ownership. Tribes have broad powers from the national government to administer customary (tribal) law. Chiefs have much greater influence in rural Ghana than in the major cities. In rural Ghana chiefs and tribes are the governing force in everyday life. Traditional leaders (Chiefs etc.) have statutory functions for the collection, refinement, codification, and unification of customary (tribal) laws; adjudication in chieftaincy disputes; compilation of lines of succession in the various traditional offices; and appointment of representation to the various government statutory bodies. Non Statutory responsibilities include: settlement of disputes (including land disputes) through arbitration and acting as linkages between their communities and development agencies.

It is therefore necessary for mining companies to develop a good working relationship with the local tribal chief who will be of assistance in dealing with the communities affected and assist if there are any disputes.

2.5.3 Exploration

There are two licences to explore under the mineral law - the Reconnaissance Licence and the Exploration Licence.

The Reconnaissance Licence is an exclusive right to conduct reconnaissance activities for a period of one year. The holder is not allowed to drill or excavate. The licence is issued by the Minister on the recommendation of the Minerals Commission. The licence can be renewed for a further period of one year. The size of the area is 5000 blocks or 1, 050 km².

The Minerals Commission can issue a Temporary Air Survey Permit to a valid rights holder to conduct magnetic and other airborne surveys. The Commission must make the recommendation to the National Security Coordinator. All data obtained must be given to the Geological Survey for the national database.

The Exploration Licence is an exclusive right to search for a specified mineral within a certain area. It is issued for an initial term of 3 years and can be renewed two times for 3 years for a total of nine years. The area over which a PL can be granted is 750 contiguous blocks or 157.5 km². On each renewal the holder must surrender 50% of the blocks in the area as long as a minimum of 26.3 km² remains at the end of the three terms. . The holder also must commence prospecting activities within three months of the grant of the licence.

For both the reconnaissance and prospecting licence the holder must apply 3 months before the end of the valid term for a renewal. If the holder has complied with all the conditions and obligations and paid whatever fees are required the Minister is **obligated** to renew the licence.

Any application for a mineral right must include information on the financial and technical resources of the holder, an estimate of the money to be spent during the term, a program for operations, and a program for the employment and training of local citizens.

Once an application is received, it is registered in the Register of Mineral Rights under the regulations. The first to apply is the principle for determining who will get the licence. The Minerals Commission must review the application and by law, it must make its recommendation to the Minister within 90 days of receiving the application.

The Minister has sixty days from receipt of the recommendation of the Minerals Commission to either approve or refuse the application in writing. If he does not approve, he must state in writing his reasons and the applicant has a right of appeal. Within 60 days of receiving the Minister's offer the applicant must accept the Minister's offer and the Minister then grants the licence which is registered. If the applicant fails to accept the offer within the time allotted, the application lapses.

If for some reason, a holder has not applied for a renewal within the appropriate time and the time for expiration occurs, as long as an application has been received, the law deems the licence continues until the application is dealt with.

A holder may apply to surrender all or part of the area of a Prospecting Licence. It must apply to the Minister for a certificate of surrender 2 months before it wants to surrender the land. The Minister must issue the certificate of surrender unless:

- a) the applicant is in default,
- b) the applicant fails to give records and reports in respect of its mineral operations,
- c) where the Minister is not satisfied that the applicant will surrender the land in good and safe condition according to good mining practice
- d) if the remaining land after the surrender would be less than one block.

The licence will be amended accordingly and it will be effective from the date on which the Minister issues the certificate of surrender.

Ghana is a jurisdiction which limits exclusivity to the mineral as opposed to the area. The Act does take into account that if a different mineral is found, the

holder of the mineral right can apply for that mineral to be added to its licence unless that mineral is subject to another mineral right issued over that area. The only way a mineral right can be granted for another mineral, if another right exists, is when the holder of that second mineral right is notified and, after being given the first option to apply for the right, refuses. While this is supposed to address the difficulties which arise when two different rights holders have rights over the same area for different minerals, there is an element of unfairness in that the holder who finds the mineral must step aside if the other holder continues to want to hold that mineral.

Mineral rights holders must provide reports on a regular basis to the Minerals Commission and all records are confidential as long as the holder holds the mineral right. **An annual fee is required.**

Holders are able to surrender their right at any time during the term but the application must be made 2 months before it plans to leave the area.

The Minister, on a recommendation of the Commission, is able to suspend or cancel a licence if:

- the holder fails to make a payment
- becomes insolvent or bankrupt
- makes a false statement to the Minister
- becomes ineligible for some reason for a mineral right

The holder must be given a chance to rectify the problem within 60 days of receiving the Minister's intention and must "*show cause to the reasonable satisfaction of the Minister why that mineral right should not be suspended or cancelled.*" (Section 68.2)

Transfers and other legal and equitable dealings are allowed under the legislation and need the approval of the Minister "which approval shall not be unreasonably withheld or given subject to unreasonable conditions" (Section 14).

All rights and transactions that are made with regard to the right are registered, including transfers, mortgages or assignments. They are open for public review.

The law in Ghana is transparent and does ensure that actions of the minister are fettered. For example, all reasons for issuing or refusing a licence must be in writing. The Minister's decisions to grant a licence must be made after a recommendation from the Minerals Commission. Ghana, which has a British parliamentary system and legal system, is bound by administrative rules which can open a decision of a minister to the courts should he go against the technical advice of the body reviewing the application. In addition, the Ghana mining law

states that the Commission is able to exercise its powers given under that Act and that further Section 100(2) of the Act states:

"The minister shall obtain the advice and recommendation of the Commission before exercising a power, discretion or making a determination or agreement under the Act."

2.5.4 Environment

The Minerals Act of Ghana establishes a process for compensation of use of land. According to the law, the owner or occupier of any land over which there is a mineral right is entitled to and can claim compensation for disturbance of the rights of that owner or occupier. A claim must be copied to the Minister and the government agency responsible for land valuation.

The parties shall agree to the compensation. However if they fail to do so, the Minister, in consultation with the land valuation agency shall determine the compensation that will be payable. If the owners or occupiers prefer to be resettled, the Minister shall see that they get suitable alternative land. The cost of the resettlement will be borne by the title holder.

Section 74 of the law outlines the compensation principles which are:

"(a) deprivation of the use or a particular use of the natural surface of the land or part of the land,

(b) loss of or damage to immovable properties,

(c) in the case of land under cultivation, loss of earnings or sustenance suffered by the owner or lawful occupier, having due regard to the nature of their interest in the land,

(d) loss of expected income, depending on the nature of crops on the land and their life expectancy,

but no claim for compensation lies, whether under this Act or otherwise

(e) in consideration for permitting entry to the land for mineral operations,

(f) in respect of the value of a mineral in, on or under the surface of the land,
or

(g) for loss of damage for which compensation cannot be assessed according to legal principles in monetary terms. "

If the owner or occupier is dissatisfied with the compensation, section 75 states:

"The owner or lawful occupier of land affected by a mineral right shall not apply to the High Court for determination of compensation to which the

person is entitled unless the person is dissatisfied with the terms of compensation offered by the holder of the mineral right or as determined by the Minister under section 73(3) or 73(5)(b). (2) The person entitled to be compensated or the holder of the mineral right may apply to the High Court for a review of a determination by the Minister made under section 73(3) or 73(5)(b).

(3) In proceedings brought before the High Court under subsection (2), the High Court shall be exercising its supervisory jurisdiction."

The country has environmental protection legislation. The Environmental Protection Agency is the leading body responsible for the implementation and enforcement of environmental regulations and programs. It issues the environmental permits required by a title holder before they can explore. There is also a Water Commission which must issue rights for use of water for exploration purposes and a Forestry Commission which deals with timber rights. Approvals from the Water Commission, Environmental Protection Agency and the Forestry Commission must be obtained before any exploration can occur on the licence area.

Any project which may affect the environment must register with the agency for clearance and approval of their projects.

2.5.5 Dispute Resolution

The dispute resolution procedures in Ghana are previously discussed in the Section of this report entitled Basic Principles of Mining Exploration Policy and under Administration regarding the role of local tribal chiefs.

2.5.6 Other Policy Initiatives

The government has undertaken a Mineral Sector Support Programme, with support from the European Union, allowing it to do airborne geophysical work over the part of the country not previously covered. It has also invested in up-to-date geo-scientific maps and has an updated geological map for the whole country. It is establishing an Information Management System which will include all databases, an enhanced website and an intranet link for various organizations for better communication of information. All of this will enhance the information available to potential investors and hopefully increase exploration activities. The Mineral Sector Support Programme has also led to the discovery of minerals outside of the traditional such as phosphates, chromium, phosphates, and nickel.

Ghana has also improved its Mineral Cadastre to ensure enhanced computerized access to search for open areas for exploration.

The government is investing in infrastructure development. Roads and railways are being upgraded. Power is a major issue. Ghana has almost completed a third hydro-electricity dam and is planning to build new thermal generating plants using the West Africa Gas Pipeline as a source of fuel. This is it hoped will stabilize the cost of energy.

Other challenges which are common to most countries involve environmental and social conflicts, benefits distribution and attraction of local capital. With regard to benefits, Ghana has exported its gold until recently undertaking feasibility for a refinery which is planned in the near future.

Local companies in Ghana have little capital and are therefore not able to conduct major exploration programs. They carry out reconnaissance but then need to joint venture with foreign companies to pursue larger programmes of exploration. Getting more local capital to stimulate growth in this sector is one of the issues with which government is struggling. However, the joint ventures do result in a transfer of technology and knowledge and are increasing the knowledge base. The Government has provided incentives for Ghanaian service companies in such areas as drilling, assay laboratories, contract mining and geological consulting. Education programmes in geology and engineering are being promoted.

Ghana has been very successful in establishing a sustainable mining industry, maintaining good levels of mineral exploration, increasing geological information available and in improving good governance of the sector.

2.6 Other

Despite having worked at developing a good approach to attracting exploration, there are examples where countries can discourage exploration by actions or positions it takes in the exploitation sector. These actions make it more difficult to raise money for exploration companies and raise political risk questions.

Two examples of this at the present time are Argentina and Mongolia. Both countries have undergone several political approaches to the mining industry which are affecting investment in the countries.

2.6.1 Mongolia

Mongolia has been cited as one of the newest Global Growth Generators (Citigroup). It has seen total Foreign Direct Investment between 2005 and 2010 at \$US 3.8 billion – 68% of which is geological prospecting, oil exploration and mining. Its tax revenue increased 66% between 2010 and 2011.

Mining has been the primary contributor to economic growth accounting for 30% of GDP and 32% of Government revenue. The Ministry of Mineral Resources and Energy stated in 2012 that it had issued 1,096 mining licences and 3,450 exploration licences.

The Minerals Law of Mongolia was passed in 2006. It allowed for 100% foreign investment though the State has a right to percentages of ownership in exploitation. If the mineral deposit was found by the State, the Government may take 50% in the exploitation. If discovered by another entity the State may purchase 34% of the shares of an investment to be made by the licence holder.

2.6.1.1 Administration

The Ministry of Mineral Resources and agencies of that Ministry administer the mining sector.

The Law has one licence for exploration. The licence can cover 25 hectares to 400,000 hectares and has an initial 3 year term with two extensions of 3 years each as long as obligations are met. No licence can be issued over an existing title area and there is no limit on the number of licences one can hold. Applicants are on a "first come first served basis.

The application must have a map, an outline of qualified staff and a preliminary plan that outlines the scope and expenditures. Once submitted the state agency has 20 days to notify the applicant if the application is unsuccessful (for reasons of non-compliance, overlaps etc). If they plan to recommend the licence written notice is given to the Governor of the capital city of the area where the exploration will occur and he has 30 days to accept or reject the application. If he accepts, the Government notifies the applicant who has 10 days to pay the licence fee. Within 3 days of receiving the payment, the Government agency will issue the licence.

One month before expiration, the holder may apply for an extension which shall be granted if all obligations are met. Only exploration licencees may apply for a mining licence over the area of the exploration licence. Transfers are allowed and all applications, licences and any dealings in the licence are registered in Registry. Any licence holder must submit an environmental plan and put 50% of its environmental protection budget in a special bank account for the year. The Income Tax Act allows this to be a deduction when the funds are paid out. Excesses are returned to the licence holder. An exploration licence for an area where the mineral reserve was found by the State is to be done by tender.

In general the law encompasses the international principles previously discussed in this report. However, this review of the present Minerals Law is mute as in June 2010 the Government stopped issuing new licences. This moratorium was to go

until 31 December 2012 awaiting a new Minerals Law. This moratorium was extended on 31 December 2012 and continues in force until the passage of the new Minerals Law.

On 17 May 2012 the Government passed a law regulating foreign investment in business entities operating in strategic sectors – which includes mining. This law makes it necessary for investors to get government or parliamentary approval of their investment. Parliamentary approval is required if the foreign investor acquires more than 49% share in a strategic industry worth more than \$US76 million. According to an article in the Wall Street Journal of April 26, 2013 the country's parliament did amend the foreign investment provisions so that parliament does not have to approve private companies investing less than \$US 76 million. There is a need for Cabinet or Ministry approval if the investment is more than 33% or where the acquiring company would control the business or affect the pricing of the mining raw materials or exports. The new draft law is worrisome to the mining sector industry. It is much more state-centric. There are a number of changes the government is proposing:

- The Parliament had approved a list of strategic mineral deposits in 2007. The new law states that no new deposits will be added and some of those in the 2007 list may be withdrawn.
- Investment agreements will be replaced by mining agreements between the government and licence holder. The government will have the right for a percentage equity interest for no consideration.
- There will be four types of licences – prospecting licence done by tender bidding; a PL holder has apriority right to an exploration licence and can hold up to 5 licences. The PL has 4 year terms.
- An exploration licence of 5 year term may be issued to PL holders, or by tender bidding in areas determined by the Ministry. State-owned or state-participated entities not already licenced are not required to tender bid. There is a priority right to obtain a mining licence.
- Transfers or pledges²² have to be registered and state-owned entities have a preemptive right to licences that are being transferred. Pledging of licences is allowed.

²² A pledge is the bailment of goods to a creditor as security for a debt or other engagement by the creditor. Basically the pledgee has a lien on the property for payment or performance obligations.

- There are many reasons for cancelling a licence
- Licences are to be issued by tender bidding except in special circumstances. The current “first-come, first-served” system is abolished.

The draft law imposes that not less than 34% equity in a foreign-invested mining licence holder must be a Mongolian citizen. If a foreign entity is planning to convert from an EL to a mining licence they would have to divest some of their equity. This equity participation increases to 50% if the mineral deposit was discovered by state-funded exploration.

The new investment law has been sent to parliament to clarify many other uncertainties but Moody’s Investment Services said it does not have clear approval procedures and criteria are not straightforward. Meanwhile the draft Mineral law is under public discussion and uncertainty remains as to what will result.

Standard’s & Poor Credit rating agency downgraded Mongolia’s rating from stable to negative “because fiscal and external profiles could deteriorate materially over the next year or two in the absence of a significant improvement in policy making” and “the policy risk for the mining sector remains elevated and hurts FDI inflow,”²³ According to the Mining.com article Foreign Direct Investment has dropped 17% in 2012. Bloomberg reports that investment was down 58% in the first two months of 2013. ²⁴This is due to blocking of deals such as the coal subsidiary of Turquoise Hill, deals in talks with Rio Tinto over the Oyu Tolgoi mine and the new draft mining law.

The changes that have been proposed do lessen the security of investment, of mining title and of the equal treatment of foreign and domestic companies policy.

Behre Dolbear in its 2013 Report stated:

*"The most notable change was seen in Mongolia, which dropped a total of 5 points since 2011. Mongolia’s volatile political climate has taken a significant toll on mining policy and drastically affecting the level of foreign investment."*²⁵

²³ “Mongolia downgrade bolsters Turquoise Hill in Oyu Tolgoi talks”, Mining.com, April 23, 2013

²⁴ Michael Kohn, "Mongolia's Parliament Approves Changes to Foreign Investment Law", Bloomberg News (online) April 19, 2013.

²⁵ "2013 Rank of Countries for Mining Investment: Where Not To Invest" Behre Dolbear, compiled and edited by Chris Wyatt and Taylor McCurdy, 2013 page 10.

Until such time as the foreign investment and mineral law is clear, new investment is unlikely especially as exploration licences are in moratorium.

2.6.2 Argentina

In Argentina the Provinces own most of the mineral resources. In May 1993, the federal government and all the Provinces executed an agreement to unify the mining policy and procedures throughout the country. Most of the provinces have ratified this agreement in their own legislation. The Provinces administer their own mining regime. It has been difficult to access the information regarding the provincial process which is why this part of the report will demonstrate only basic information about the country and outline some of the issues facing exploration companies.

Argentina does allow foreign investment in the mining sector. In 1993 the Mining Investment Law granted certain tax benefits for federal, provincial and municipal taxes. Any company qualified under that law has a “tax stability” for 30 years from the date of filing its feasibility study. It applies to exchange control and customs duties. In December 2007, the Cabinet imposed a withholding duty on exporting minerals. This affects the tax stability and companies affected sued the government. Two court rulings have declared the duty invalid but it has seems to still be an issue as the Supreme Court must still rule on the matter. The Argentine Government has also changed rules regarding the repatriation of profits.

Argentina is a country with great mining potential. Only 25% of its territory has been subject to exploration. Certainly over the last 10 years there has been real growth in some of the provinces. The Fraser Report indicated that three provinces are mining friendly. Others however have what is regarded as “anti-mining” legislation. There are a total of 614 mining projects including Pascua Lama (shared with Chile) and Vale’s Rio Colorado. According to the President of the association of exploration companies, GEMERA, about 70% of exploration activities involve small and medium companies. According to Bloomberg the GDP for the mineral sector increased an average of 0.2% per year from 2000.

A recent review of Argentina’s mining sector stated that some of the provinces are trying to get companies to joint venture with province-owned companies and this had caused some concern in the mining community. Companies believe that working with these provincial companies will mean that business and politics will be mixed. In addition, the regulatory environment is “a complex arrangement of law where the provinces hold much independence on how to apply umbrella regulations created by Argentina’s central government. As a result the regulatory

framework is diverse, especially when it comes to the yet to be developed mining business.”²⁶

There is uncertainty regarding the federal government and its motivations towards resource companies. In May 2012 the Argentine government nationalized the largest oil company operating in the country. Owned by Repsol, the Spanish state company, the government argued it was not investing enough in exploration as a percentage of its profits. Repsol argued that controls on exports, prospecting lease award issues and price controls on domestic oil and gas were reasons for the lack of investment in exploration. The Government must compensate Repsol and that issue is now a subject of international arbitration. According to one expert the nationalization has not worked as the gaps between what the country consumes and produces will grow between 20 and 40% in 2013.

In the mining sector, Vale, one of the world’s largest mining companies, announced In January 2013 it was backing away from its Rio Colorado potash mine in Mendoza Province. The mine was originally to cost \$US 5 billion and Vale has spent \$US 2.2 billion getting ready to produce in 2014. Vale said that the cost of the mine had increased to over \$US 10 billion due to rising costs relating to surging inflation, tightly controlled foreign exchange rules making the mine unviable economically. Vale requested tax breaks from the government in order to continue, a request the government refused. In April Vale and the government signed an agreement allowing Vale to sell the project.

The mine was supposed to start in 2014. It had a 50 year mine life and would have helped create a trade surplus for the country and lessen imports of potash into the country. It is doubtful there would be a buyer for the mine due to high inflation, the depreciating peso and “issues with local authorities” which drove up the costs. It is presumed that the only way it could be sold would be for the Government to subsidize it - difficult for the country as it is not in an economic position to support a project of that size.²⁷

This latest development is one which will definitely concern private investment in the mineral sector in Argentina. It demonstrates that the lack of certainty can and does affect mineral investment especially in exploration.

²⁶ “Mining In Argentina” Global Business Reports, E&MJ Engineering and Mining Journal, February 2013, p 64

²⁷ Samantha Pearson, “Argentines hope Lula will pull off miracle on Vale Potash Mine” Financial Times, June 2, 2013 (online)

3 CONCLUSION

There is only so much exploration money available world-wide. In 2012 it was estimated that about \$US 21.5 billion was spent world-wide in non-ferrous exploration. Latin America attracted 25% of that amount, Africa attracted 17%, Canada 16%, Eurasia was fourth and Australia was fifth.²⁸

Countries that want to increase the amount of that money into their exploration activities realize they must compete with others to make their country more attractive. Chile, Sweden, Ghana and the State of Western Australia have succeeded in attracting exploration and have continued to maintain that attraction by being competitive.

How have countries attracted the mining exploration interest and maintained it?

First, their laws are clear and well understood. The **international principles** of security of title, exclusivity, non-discrimination, transfer, and dispute resolution are all clearly enunciated in their laws. More importantly, regardless of the issues that may arise none of them have changed any of the provisions pertaining to these principles. There is a commitment to transparency in how that law is implemented. One of the major issues for the Philippines is the fact that despite national legislation, local governments have their own regulatory issuances which can and do conflict with the national government approach.

Second, administrative efficiency is of primary importance. Having an **engaged, competent, efficient bureaucracy** is a key element in making a place attractive for mining exploration.

²⁸ "World Exploration Trends 2012", Metals Economics Group, A special Report from SNL Metals Economics Group for the PDAC International Convention

Even if a country has a good law, if it does not have efficient and effective bureaucracy implementing it, it will discourage investment. The lack of investment in the Philippines is a real example - despite having massive mineral potential it is still struggling to get the kind of exploration activity commensurate with that potential.

The jurisdictions studied are all committed to lessening bureaucratic wait times to issue rights and in fact, to make the process extremely easy. The performance management program initiated by the Government of Western Australia is commendable and needs to be more actively emulated by other jurisdictions to ensure there are adequate timelines in the approval system. Western Australia has demonstrated that having information on-line and using on-line to receive applications, work programs etc is extremely cost and time effective. In addition, it has instituted a case management approach to projects ensuring there is assistance in liaison with other departments which are key in the approvals system. Long timelines and approval processes cost companies in that they are unable to proceed with active programs. It costs governments because it becomes one of the measurements used by companies as to whether they will invest in that mining jurisdiction.

One of the issues in the Philippines is the bureaucratic inefficiencies. The fact that companies cannot commence work programs on a licence because the same agency has not issued an Environmental clearance is both frustrating and unattractive to investors. It is one of the reasons the Government created the Ministers Council. This may help in breaking the bottlenecks which have arisen within the bureaucratic administrative system but it might also create a more political environment into decision-making which may not be a positive development.

Third, all of the laws make it easy to apply for an exploration permit with **little, or no, bureaucratic or political discretion**. In Chile issuance of mineral titles is with a civil court following specific rules. In Ghana and Western Australia, while the Minister issues the rights, he does so on a recommendation from the public service.

The Philippines, while having imposed a moratorium, has tried to respond to all these issues by setting up a Cabinet committee to ensure active decision-making. It is attempting to ensure efficient processes in licencing.

Another important principle is to have **work programs** which must be done in order to receive extensions to the exploration rights. Chile is a perfect example of a country where allowing a company to maintain a right without any exploration commitments has negatively affected greenfield exploration. Turning over

properties through relinquishments and ensuring work is done on the properties on an ongoing basis enhances increases the exploration effort and the possibility of finding economic mineral deposits.

Fourth, Governments also need to ensure that the **geological potential** of their area is well-known and understood. **Generating and providing good geoscience** is a fundamental key in attracting mineral investors. The countries under study all provide this information **free of charge**. Many countries provide this information on-line.

Fifth, research and development and education is another area where governments can take the lead. The mining sector is a high tech industry and training in universities to develop skills to use that technology is important. Universities play a key role in training engineers, geologists, and other professions working in the mining sector. In Western Australia Curtin University has minerals and energy as a key area for its research efforts. The University of Western Australia performs at or above the world average in research in geophysics, geochemistry and engineering. As stated earlier in this report, Western Australia is openly inviting foreign service companies to come and work in the State primarily to benefit from the transfer of technology and knowledge. Chile is planning programs with Canada to address education particularly needed for the mining industry. As the mining industry grows, the demand for skills increases. Shortages are predicted in the areas pertaining to mining so governments need to be planning to train and educate the people required in order to meet the needs of both government and industry.

Governments also need to fund or be involved in ongoing **research and development in technology** as is the case especially in Western Australia and Sweden. New techniques for exploration reduce costs and risks and make finding of minerals more efficient. Such is optical spectroscopy allowing the ability to measure reflecting light to determine minerals below the surface. This is done using aircraft or satellite and can guide exploration investors to more prospective areas without the costs of land based activities and camps. Canada's Geological Survey is carrying out such a program in Nunavut, in the North, this summer.

Sixth, a commitment to **transparency** in all aspects of the government's role: from providing laws and regulations to ensuring that the implementation is fair. Western Australia is a clear example of this transparency. Everything pertaining to the administrative system is on line, laws, procedures, contact information, geology, and any other information pertinent to the industry. Using the internet to disseminate and receive information is a major way for governments to increase efficiency and to ensure their mining system is well understood.

Seventh, also of importance is the overall **stability of the political and legal system**. In Ghana despite the change of governments, the law and its implementation remained the same. A judicial system that is free from political interference, with well-trained jurists establishes a trust that should issues arise there is a mechanism for a fair hearing. Companies need to protect their investment and having clear and transparent judicial system is a key element in their investment decisions. Constant political interference and changes such as has occurred in Mongolia give reason to question the stability of the system. Both Argentina and Mongolia and to a lesser extent the Philippines, demonstrate that changing rules for existing projects is problematic for investors. The fact that Mongolia is suggesting reversing from international principles and increasing the different treatment of foreign and state companies is not well accepted. It means they will not be competitive against many jurisdictions including the ones studied in this report. These other countries, such as Sweden, are committed to increasing investment and are doing things to ensure they attract the exploration needed to grow the industry.

Attracting mining investment is not just about a good law. It is **ultimately a package of things** - good and stable laws and fiscal regimes, a commitment to providing information to lower costs and risks, a good administrative system implementing the laws allowing for consistency and transparency, and commitments to increasing technological change. Consistency in application of all these matters is what builds trust in the system that attracts investors who believe they can work in a country. Countries that continue to attract large exploration dollars have been **consistent** in policy, and adhered to the main internationally acceptable principles and practices. The generation and distribution of good geoscience has been a key to successfully attracting investment. Spending on research and development, education and infrastructure are important.

Ultimately, it is a question of whether a country wants foreign investment - if it does it will have to be competitive with the rest of the world and to establish that competitiveness means accepting and adopting international practices.

4 APPENDIX A - TAX RATES

CHILE - DOING BUSINESS IN CHILE**WORLD BANK GROUP 2013**

TAX OR MANDATORY CONTRIBUTION	STATUTORY TAX RATE	TAX BASE	TOTAL TAX RATE (% OF PROFIT)
Corporate income tax	20%	Taxable profit	21.1
Employment Taxes	3%	Gross salaries	3.8
Property tax	1%	Property value	1.8
Municipal Tax	1%	Capital	0.8
Fuel Tax		Included in fuel price	0.5
Vehicle Licence Tax	UTM 3	Fixed fee	0
Municipal Tax on Cleanliness		Fixed fee	0
VAT	19%	Value added	Not included

According to the Report Chile has a 28.1% total tax rate as percentage of profit

SWEDEN- DOING BUSINESS IN SWEDEN**WORLD BANK GROUP 2013**

TAX OR MANDATORY CONTRIBUTION	STATUTORY TAX RATE	TAX BASE	TOTAL TAX RATE (% OF PROFIT)
Corporate income tax	22%	Taxable profit	15.7*
Payroll tax	31%	Gross salaries	35.5
Fuel tax	SKr5.50	Per liter	1.3
Real estate tax	1%	Assessed property value	0.6
Value Added Tax	25%	Value added	Not included

** When the World Bank study was done the corporate income tax rate was 26%. This has been lowered to 22% in the last budget which means the 15.7% is actually less than appears here.*

With a 26% tax rate, Sweden's total tax rate was 53%. This rate would be somewhat lower with a 4% change in the tax rate.

GHANA - DOING BUSINESS IN GHANA**WORLD BANK GROUP 2013**

TAX OR MANDATORY CONTRIBUTION	STATUTORY TAX RATE	TAX BASE	TOTAL TAX RATE (% OF PROFIT)
Corporate income tax	35% (up from 25%)*	Taxable profit	17.7*
Social security contributions	13%	Gross salaries	14.7
Capital Gains Tax	15%	Capital gains	0.8
Tax on interest	8%	Taxable interest	0.2
Municipal tax	Various rates	Property value	0.2
Fuel Tax	Varies	Per liter	0.2
VAT and National Health Insurance Levy	15%	Value added	0.0
Property tax	Various rates	Property value	0.0

**Since this report was written, Ghana has raised its corporate tax rate to 35% on mining, thus the Total Tax Rate will have changed upward. With a 25% tax rate the Total tax rate was 33.5% which would now be higher.*

AUSTRALIA - DOING BUSINESS IN AUSTRALIA**WORLD BANK GROUP 2013**

TAX OR MANDATORY CONTRIBUTION	STATUTORY TAX RATE	TAX BASE	TOTAL TAX RATE (% OF PROFITS)
Corporate income tax	30%	Taxable profit	26
Superannuation guarantee	9%	Gross salaries	10.2
Payroll tax	6%	Total payroll	4.8
Worker's Compensation	4%	Gross salaries	4.4
Fringe benefits tax	47%	Grossed up taxable value of fringe benefits	1
Fuel Tax	A\$0.231	Per litre	0.5
Land Tax	100 plus 1.6 cents for each \$A exceeding \$396,000	Unimproved land value	0.3
Municipal tax	A\$8000	Fixed fee	0.3
Vehicle tax	\$A 701 for each vehicle	Fixed fee	0.1
Tax on insurance contracts	9%	Insurance premium	0.1
VAT	10%	Value added	0

This gives a total of 47.5% total tax rate for Australia.

PHILIPPINES - DOING BUSINESS IN THE PHILIPPINES
WORLD BANK GROUP 2013

TAX OR MANDATORY CONTRIBUTION	STATUTORY TAX RATE	TAX BASE	TOTAL TAX RATE (% OF PROFIT)
Corporate income tax	30%	Taxable profit	21.1
Local business tax	1%	Previous year turnover	8.8
Employer paid social security contributions	7.02-7.45%	Gross salaries	7.6
Real property tax	2%	Assessed value of property	4.2
Employer paid - health insurance	1.21157% -1.24615%	Gross salaries	1.7
Employer paid - housing development fund	2% or P100 per worker	Gross salaries	1.7
Tax on Interest	20%	Interest	0.5
Community tax certificate	P10,500	Fixed fee	0.3
Environmental Tax	P10,000		0.2
Employer paid - Employer's compensation	P10	Per employee per month (paid jointly)	0.2
Vehicle Tax	Basic fee + 24%	Vehicle weight	0.1
VAT	12%	Value added	0
Tax on check transactions	P1.5 oer check	Number of checks	0
BIR certificate	P150 (paid jointly)	Fixed fee	0
Tax on insurance contracts	P0.5 per each	Insurance premium	0
Stamp Duty	Various rates	Contract value	0

The total tax rate as a percentage of profits for the Philippines is 46.6%