

A MINERAL REGULATORY REGIME PROPOSITION  
TO SUPPORT THE SUSTAINABLE EXPLOITATION OF  
SOUTH AFRICA'S MINERAL RESOURCES

Morake Abiel Mngomezulu

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DECLARATION

I declare that this research paper is my own unaided work. It is being submitted to the Degree of Master of Science to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to any other University.

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## **ABSTRACT**

Regardless of the strategic role that mining plays in South Africa's economic growth and development, there are perceptions that mining benefits are still enjoyed by a few elite individuals. This is partly due to high expectations from lower level workers in the sector and communities where mining takes place. Failures in the implementation of some of the policies that are social in nature are making people question the wisdom of the current mining legislation, the Mineral and Petroleum Resources Development Act (MPRDA). The main question of this research paper is whether the MPRDA, in its current form, is a suitable mining legislative framework that can usher a better dispensation for all or whether there is a need to overhaul it in order to deliver the desired end results that are expected by the majority of South Africans. It is against this background that this research was undertaken, by studying best practice in other mining jurisdictions and conducting a survey of those involved in the South African mining sector. From the research and surveys, recommendations are proposed on what amendments could be effected on the MPRDA to make the South African mining sector more attractive and simultaneously, meet the citizens' expectations.

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## Glossary of Terms

<b>ABBREVIATION</b>	<b>MEANING</b>
<b>AMD</b>	Acid Mine Drainage
<b>AMV</b>	African Mining Vision
<b>ANC</b>	African National Congress
<b>AQA</b>	Air Quality Act
<b>BEE</b>	Black Economic Empowerment
<b>CGS</b>	Council for Geosciences
<b>CONAMA</b>	National Commission for the Environment
<b>COW</b>	Contract of Work
<b>DEA</b>	Department of Environmental Affairs
<b>DME</b>	Department of Minerals and Energy
<b>DMR</b>	Department of Mineral Resources
<b>DWA</b>	Department of Water Affairs
<b>EBIT</b>	Earnings Before Interest and Taxes
<b>EIA</b>	Environmental Impact Assessment
<b>EMEP</b>	Environmental Monitoring and Evaluation Program
<b>EMP</b>	Environmental Management Program
<b>EMS</b>	Environment Management System
<b>EMSP</b>	Environmental Management Systems and Programmes
<b>EXCO</b>	Executive Committee
<b>FDI</b>	Foreign Direct Investment
<b>FMC</b>	Foreign Mining Company
<b>FTAA</b>	Financial or Technical Assistance Agreements
<b>GDP</b>	Gross Domestic Product
<b>GFCF</b>	Gross Fixed Capital Formation
<b>HC</b>	Host Country
<b>HDSAs</b>	Historically Disadvantaged South Africans
<b>HIA</b>	Heritage Impact Assessment
<b>HRD</b>	Human Resource Development
<b>ICSID</b>	International Centre for the Settlement of Investment Disputes
<b>ITAC</b>	International Trade Administration Act
<b>JORC</b>	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves
<b>JV</b>	Joint Venture
<b>LSA</b>	Labour Sending Area
<b>MA</b>	Mining Agreement
<b>MHSA</b>	Mine Health and Safety Act
<b>MMSD</b>	The Mining, Minerals And Sustainable Development Project

<b>MNC</b>	Multi-National Corporation
<b>MPRDA</b>	Minerals and Petroleum Resources Development Act
<b>MSR</b>	Mine Site Rehabilitation
<b>MWP</b>	Mining Work Program
<b>NEMA</b>	National Environmental Management Act
<b>NEMPAA</b>	National Environmental Management Protected Areas Act
<b>NHRA</b>	National Heritage Resources Act
<b>NWA</b>	National Water Act
<b>PAIA</b>	Promotion of Access to Information Act
<b>PGM</b>	Platinum Group Metals
<b>PRC</b>	Peoples Republic of China
<b>R&amp;D</b>	Research and Development
<b>SAIMM</b>	South African Institute of Mining and Metallurgy
<b>SAMREC</b>	South African Code for Reporting of Mineral Resources and Mineral Reserves
<b>SAMI</b>	South African Minerals Industry
<b>SARS</b>	South African Revenue Services
<b>SD</b>	Sustainable Development
<b>SEIA</b>	Socio Economic Impact Assessment
<b>SIMS</b>	State Intervention in the Mining Sector
<b>SLP</b>	Social Labour Plan
<b>SME</b>	State Mining Enterprise
<b>SMME</b>	Small and Medium Micro Enterprise
<b>SOEs</b>	State Owned Entities
<b>STC</b>	Secondary Tax on Companies
<b>UNECA</b>	United Nations Economic Commission for Africa
<b>USA</b>	Unites States of America
<b>UTM</b>	Universal Transversal Mercator
<b>VAT</b>	Value Added Tax
<b>WHT</b>	Withholding Taxes

## 1. INTRODUCTION

Commercial mining activities in South Africa date as far as back as 1847, with European settlers exploiting copper deposits in the Springbok region of the Northern Cape on a commercial scale. This was followed by the discovery of the Kimberlite pipes around 1869, which resulted in the commercial diamond diggings in Kimberly. An enormous amount of capital injection went into the development of Kimberly's diamond industry. The centre of interest shifted towards Johannesburg following the discovery of the gold belt which extended a distance of approximately 120 kilometres from the west to the eastern parts of the Witwatersrand region. This discovery led to a gold rush with an influx of both skilled and unskilled labour from all over the globe in pursuit of the wealth that was offered by the new developing gold mining industry. This period also saw substantial financial investment into South Africa mainly to fund the exploitation of the Gold Reefs. The new gold mining industry had strategic, political and economic importance as it guaranteed wealth to the political administration of the time. During 1899-1902, the Afrikaans and British English settlers went to war (the Anglo-Boer War) for control of the Gold industry. The British settlers emerged victorious, which enabled them to administer the gold and the diamond industry (SAIMM, 2012; ANC, 2012).

Today mining still plays an important role in the South African domestic economy, as the country possesses extensive and diverse mineral resource endowment, as indicated in Table 1 below. An independent evaluation estimates the in-situ mineral wealth of South Africa at USD 2.5 trillion (DMR, 2012). Globally, South Africa boasts the largest reserves of Platinum Group Metals (PGMs), chrome ore and fluorspar. Along with these, it has the second largest known reserves of gold, manganese and vanadium. It also has significant reserves of uranium, coal, nickel, antimony, phosphate rock and zinc, making South Africa a key source of minerals for the global economy (DMR, 2012).

The South African Mineral Industry (SAMI) annual report for 2012/13 indicated that the mining industry still continues to play a strategic role in South Africa's economic growth and development. In 2012, mining contributed 9,3% to the GDP and 12,4% to the Gross Fixed Capital Formation (GFCF) of the country. The contribution of primary mineral export sales, which was R 269,1 billion, accounted for 35,1% of the total exports of goods. The total State revenue from the mining sector, which includes assessed tax, provisional tax and secondary tax, was R12,8 billion in that period. During 2001-2011, the mining sector created a total of 89 004 direct jobs indicating the significance of mining to the country's economy. In 2012 the sector employed 2,9% of South Africa's economically active population. This figure excludes those people employed in exploration, research and development organisations, and head offices (DMR, 2013).

**Table 1: South Africa's Mineral Reserves World Ranking, 2009 Production & Nominal Life (Assuming No Further Reserves) at 2009 Extraction Rate**

Source: SAMI 2009/2010, DMR (2010)

MINERAL		RESERVES			PRODUCTION 2009			LIFE
		Mass	%World	Rank	Mass	%World	Rank	Years
Alumino-silicates	Mt	51	*	*	0.265	60.2	1	192
Antimony	Kt	350	16.7	3	3	1.6	3	117
Chromium Ore	Mt	5500	72.4	1	6.762	*	1	813
Coal	Mt	30408	7.4	6	250.6	3.6	7	121
Copper	Mt	13	2.4	6	0.089	*	*	146
Fluorspar	Mt	80	17	2	0.18	3.5	5	444
Gold	T	6000	12.7	1	197	7.8	5	30
Iron Ore	Mt	1500	0.8	13	55.4	3.5	6	27
<i>Iron Ore - incl. BC</i>	<i>Mt</i>	<i>25000</i>	<i>~10</i>	<i>*</i>	<i>55.4</i>	<i>3.5</i>	<i>6</i>	<i>451</i>
Lead	Kt	3000	2.1	6	49	1.2	10	61
Manganese Ore	Mt	4000	80	1	4.576	17.1	2	874
Nickel	Mt	3.7	5.2	8	0.0346	2.4	12	107
PGMs	T	70000	87.7	1	271	58.7	1	258
Phosphate Rock	Mt	2500	5.3	4	2.237	1.4	11	1118
Titanium Minerals	Mt	71	9.8	2	1.1	19.2	2	65
<i>Titanium- incl. BC</i>	<i>Mt</i>	<i>400</i>	<i>65</i>	<i>1</i>	<i>1.1</i>	<i>19.2</i>	<i>2</i>	<i>364</i>
Uranium	Kt	435	8	4	0.623	1.3	10	698
Vanadium	Kt	12000	32	2	11.6	25.4	1	1034
Vermiculite	Mt	80	40	2	0.1943	35	1	412
Zinc	Mt	15	3.3	8	0.029	0.2	25	517
Zirconium	Mt	14	25	2	0.395	32	2	35

South Africa is a middle-income emerging market with an abundant supply of natural resources, as well as well-developed financial, legal, communications, energy, and transport sectors. The country hosts the seventeenth largest stock exchange in the world and a well maintained modern infrastructure, which maintains an efficient distribution of goods to major urban centres throughout the region. Since 2004, the domestic economy has experienced macro-economic stability until the on setting of the global economic recession in the third quarter of 2008 (Brand South Africa, 2013). South Africa's economic policy is economically conservative but pragmatic, focusing on controlling inflation, maintaining a budget surplus, and using state-owned enterprises (SOEs) to deliver services that would be expensive if provided by the private sector as well as to mitigate against market failure (Brand South Africa, 2013). Linkages which span from tertiary the country also boasts well developed spatial linkages in the form of a good transport network, rail, ports and road infrastructure that is supported by a well advanced knowledge institutions to science councils (ANC , 2012). Over the years, the South African mining industry has developed critical backward and forward linkages. The backward linkages include the available inputs for mineral development projects. These include machinery to mine, consumables, the relevant mining and geo-engineering services, as well as an established financial service sector and environmental management services and consultancy firms. Through investment in Research and Development (R&D) easily adaptable mineral processing technology exists within the domestic mining industry which has given rise to the development of semi-manufactured products.

### **1.1. Rationale and Problem Statement**

Mining is a sector that is targeted to contribute to the sustainable socio-economic growth of mineral-hosting nations, as it has features which differentiate it from other sectors of a nation's economy and from other extractive activities like the extraction of oil and gas. The unique features are largely associated with the notion that mining is concerned with the removal of non-renewable resources, which are public assets that need to be exploited with the public as beneficiaries. Secondly, as mining is about digging a hole in the ground, if not managed

properly, these activities can destroy the environment, which can have severe socio-economic impacts on the lives of people living in the vicinity of mining operations. Thirdly, the mining sector is an international industry that offers developing countries dollar-based revenues, which present much needed foreign earnings associated with a strong global currency compared to local currencies. This makes the industry an important source for government revenue. The challenge is to develop appropriate instruments to manage the minerals sector through the development and implementation of an adequate mineral policy (Bond, 2002).

A mineral policy is an instrument used by mineral-hosting nations to declare their unique interests pertaining to their minerals sector, as an attempt to enable mineral endowed nations to benefit from mineral resource development (Otto and Cordes, 2002). Otto (1997) stated that mineral policies are developed in relation to political, economic, technological and geological advancements exclusive to a particular mineral-hosting nation. As illustrated by Mutemeri et al (2010), a mineral-hosting nation's mineral policy expresses the host nation's requirements relating to the exploitation and exploration of the country's mineral wealth, with the mineral regulatory regime developed to guide both the public and private sectors' conduct relating to mineral development. Mineral regulatory regime outlines the perimeters for tolerable behaviour in mineral development projects. Pedro (2004) also noted that the tools to encourage transparency, the appropriate management and distribution of benefits emanating from the minerals industry have become an important feature in the development of a mineral policy. Otto and Cordes (2002) advocated that contemporary mineral policy topics were being developed with a strategic intent to guide the mineral industry to contribute towards sustainable development. The content of a mineral policy framework may consist of the scope, autonomy, mineral resource rent and tax, sustainable development, regulatory framework and governing agencies (Otto and Cordes, 2002).

Eggert (2004) indicated that the accumulation and the distribution of basic geological information was an additional topic which needed to be clearly articulated in a mineral policy. He went on to explain that modern mineral policies were being developed with a view of granting greater access to mineral resources. This is due to mineral policies that tended to offer clear and transparent licensing arrangements and the security of tenure which granted mining companies the opportunity to transfer exploration and mining rights, thus allowing mining companies to trade their produce on profitable terms.

As suggested by Otto (1997), the majority of African mineral-hosting nations have predominantly been under the control of colonial influences in varying degrees. This translated to financial and skills-intensive mineral projects being largely owned and operated by foreign entities from the colonial metropolis. In essence, mineral development projects in Africa during the colonial period and to a large extent even beyond the 1960s were not exploited for the economic development of African economies (Pedro, 2007; Otto and Cordes, 2002).

Mtegha (2002) argued that post-colonial African states increased government's control and in some areas, government was granted complete ownership of mineral enterprises so as to enable the independent state to assure its sovereignty and autonomy over the former colonial powers. This was primarily an effort to transfer the wealth that had been enjoyed by the colonial powers to the post-colonial African states. However, in South Africa, the post-apartheid period is an epoch in which the state and its structures are committed to transforming the economy to enable the economic benefits of the country to be shared by all South Africans with preferential treatment being given to Historically Disadvantaged South Africans (HDSA's) (Ndaba, 2010). As in other mineral-hosting countries in the developing world, the South African mineral sector is also a significant driver of economic growth and development (Ndaba, 2010). The mining sector is one of the sectors expected to contribute not only to socio-economic development of the country but is also in the priority list for transformation in South Africa (Ndaba, 2010; Cawood, 2004). Transformation, Sustainable Development (SD),

Mine Health and Safety, Research and Development (R&D), mine labour force stability, access to sufficient energy supply, regulatory certainty, and the globalization of South Africa's mineral resources are the central issues impacting on the ownership, management and development of the South African minerals industry (Cawood, 2005; Mtegha et al, 2010).

South Africa's mineral policy, the White Paper on Minerals and Mining Policy for South Africa of October 1998, is comprised of six themes that were identified as being vital to the transparent, adequate management and steering domestic mineral resource exploitation towards a sustainable development trajectory, namely:

- *“Business Climate and Mineral Development.*
- *Participation in Ownership and Management.*
- *People issues.*
- *Environmental Management.*
- *Regional Co-operation.*
- *Governance”*

(DME, 1998).

Regardless of the positive role played by the mining sector in the South African economy, there are perceptions, mainly from the underprivileged South African black population, that mining benefits are enjoyed by a few elite individuals mainly comprised of the white population and a few politically connected black bourgeoisies. This view has been fuelled by the mining industry's limited ability to meet the objectives enshrined in South Africa's mineral legislation, the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA), mainly:

- *“Transformation of the minerals and mining industry.*
- *Promotion of equitable access to South Africa's mineral resources.*
- *Promotion of investment in exploration, mining and mineral beneficiation.*
- *Socio-economic development of South Africa.*

- *Environmental sustainability of the mining industry”.*

(MPRDA, 2002)

The high expectations from lower level workers in the mining sector, coupled with dissatisfaction of mining’s limited contribution to socio-economic development of communities proximate to mining operations and mining Labour Sending Areas (LSAs), illustrates the enormous challenges in the implementation and realisation of the MPRDA’s objectives and its supporting regulatory frameworks, the Broad Based Socio-Economic Empowerment Charter known as the Mining Charter and the Social and Labour Plans (SLP).

The main concerns which led to the commencement of this research project are:

- (a) Whether the MPRDA is a suitable mining legislative framework to enable the minerals sector to adequately contribute to the sustainable exploitation of South Africa’s mineral resources?
- (b) Have there been difficulties in the implementation of the Act?
- (c) Is there merit in looking at an alternative mineral policy and legislative framework that will be effective in enabling the sustainable exploitation of South Africa’s mineral wealth?

## **1.2. Objective of the Study**

The central objective of this study is to assess the South African mineral regulatory regime in relation to global practices in using mineral legislation as an instrument to enable mineral-hosting nations to promote the sustainable exploitation of their mineral endowment. This research project also aims to assess the ability of the state in utilising its mineral regulatory mandate in order to steer the South African mineral industry towards a sustainable development trajectory.

## **1.3. Research methodology**

Using a qualitative research methodology, the study is conducted in a four - pronged approach. The first phase reviews a variety of mineral legislations from a

number of mineral hosting regions to identify the mechanisms developed to promote the sustainable exploitation of a nation's mineral resource heritage. The six themes emanating from South Africa's 1998 White Paper, namely: business climate and mineral development; participation in ownership and management; people issues; environmental management; regional co-operation and governance, were initially going to be used as positions of analysis. Instead the research uses the guidelines advocated by the World Bank as essential in ensuring host nation's mineral regulatory regimes are aligned to the sustainable exploitation of its mineral wealth.

The second phase of this research project was executed through conducting a survey in a form of a questionnaire that is comprised of international and South African practises in the development and implementation of minerals legislation. The survey was distributed to a number of stakeholders with extensive experience in both the public and private activities of the South African mining industry as to obtain their perspectives on the formulation and implementation of a mining regulatory regime. The third phase was confined to an empirical analysis of the mineral legislation coupled with scrutinising and summarising the data collected from the survey. The fourth phase concludes the research project by utilising the research findings from the above phases to recommend an alternative mineral regulatory regime for the sustainable exploitation of South Africa's mineral resource heritage.

## **2. LITERATURE REVIEW**

This literature review discusses the underlying theory of this research project. To do this, it unpacks the requirements for a mineral-hosting nation to formulate an adequate minerals policy. The chapter also provides an explanation of the mineral legislation as being the only device that should guide investors in obtaining either an exploration or mining right. The chapter also introduces the different systems of state ownership in the mining industry.

Liberal policies, particularly those relating to democracy, human rights, and Sustainable Development (SD), have become influential in mineral policy formulation. When developing a mineral policy, Mtegha (2004) articulated that mineral-hosting nations need to adhere to all political and economic factors, which should advise the required in-depth information to be collected about their domestic mineral sector. The state's capability to formulate a mineral policy stretches far beyond technical skills as it is also reliant on other skills which may include mineral investment analysis, mineral law, environmental management, sustainable development, communication and facilitation (Mtegha, 2004; Otto and Cordes, 2002; Pedro, 2007).

Contemporary mineral legislative frameworks clearly illustrate the mineral-hosting nation's position in relation to the management of its nation's mineral resource heritage. Mineral hosting nations have developed various criteria required for an investor to be allowed to gain access to their mineral resources (Tsikata, 2004). The mineral legislation should clearly articulate these criteria and should not be ambiguous in order to enable prospective investors to fully understand the rules of mining (Barberis, 1998). The mineral legislation should be the only device which guides investors in obtaining a right to mine supported by a transparent and objective legal process. Mining Agreements (MAs) have become popular and useful as they are a form of a binding agreement between the

mining company and the government linked to the specific conditions affecting a particular mining project (Barberis, 1998).

One of the most important aspects of mineral investments is for the mineral-host nation to guarantee security of tenure to investors and clarify the nature of the mineral right – whether it is exclusive or it is expected to be shared with other mining companies (Tsikata, 2004). Generally, host nations offer three types of mineral rights tenure; these were defined by Naito et al (2001) as ad hoc exploration tenure, open-ended or long duration exploration tenure and extensions to defined exploration tenure.

Mineral-hosting nations are obliged to develop mineral policies that will contribute to the sustainable exploitation of their non-renewable mineral resources as to ensure that both present and future generations enjoy the benefits of the depleted non-renewable mineral resource (Ndaba, 2010; Eggert, 2004; Pedro, 2007; Otto and Cordes, 2002). To achieve this, host nations develop mineral investment contractual obligations to coerce investors to contribute towards national development objectives (Tsikata, 2004). Furthermore, the upliftment of locals living in close proximity to mineral development projects has become a strict requirement to be met in order to be granted a mining right. This is evident in a variety of mineral regulatory regimes and in MAs. This requirement allows mineral development projects to contribute towards the advancement of local economies. To fully localise the socio-economic benefits of mining, a number of instruments are utilised. These instruments include the development of employment quotas, skills development programs, public private sector research and development initiatives, incentives to develop local suppliers and the promotion of mineral beneficiation (UNECA, 2004; Ndaba, 2010; Heller, 2011).

As countries follow different legal systems, the provisions relating to the ownership and exploitation of minerals differ. Some mineral-hosting nations own mineral rights, while in other nations mineral ownership is aligned to surface land

ownership or ownership can be vested in both the state and private landowners (Tsikata, 2004). There are generally five systems of ownership that have been pursued by host nations, namely, compulsory joint venturing, compulsory contracting or participation, preferential competition, non-preferential competition and privatisation (Naito et al, 2001). Regardless of the type of mineral ownership regime in place, the mineral legislation of any mineral-hosting nation needs to articulate the government's position pertaining to the state's authority on the minerals sector, conditions of access to mineral-holding lands, guidelines on exploration, guidelines to the granting of mining rights, obligations with holding a mining right/permit, guidelines on the protection of the environment and fiscal legislation (Naito et al 2001).

In concluding this chapter it is clear that a mineral policy is influenced by a host nations political and socio economic conditions. The development of a mineral policy requires cross sectoral skills. The mineral legislation should allow the host nation to effectively manage its mineral sector along with the sectors impacted by the mining industry. The management of the mining sector should be geared towards steering mineral development towards a sustainable development trajectory. The rules of mining should be clear and direct to allow for ease of compliance by investors and to enable the host nation to regulate mineral development projects. MAs are also being utilised to meet the unique demands of specific mining projects. Clarifying the nature of a mineral right and guaranteeing security of tenure are of the utmost importance in a mineral investment contract.

Ownership and exploitation of mineral resources is influenced by host nation's economic policies. In some host nations ownership of minerals is vested within the state as the custodian of minerals for its nation. While other host nation's mineral ownership is vested in private hands, either owned by the surface land owner or private investors. There are various types of ownership instruments used by host nations when the state is also an investor in the domestic mining industry.

It is however important that mineral ownership requirements are clearly defined within the realm of the law.

### **3. DEFINING THE ROLE OF THE STATE**

This chapter deliberates on the overall responsibility of the state and its institutions in utilising its mineral resource heritage in achieving political and socio-economic stability within its borders. The strengthening of the state to correctly use its mineral regulatory devices is discussed. The chapter also discusses the different ownership models that host nations can adopt in participating in mineral enterprises.

Louw (1978) described national security as the condition of freedom from internal and external political and economic dangers enjoyed by a state. The responsibility of the state is therefore aligned to the strict provision of economic and political security for its citizenry. The state and its institutions are therefore enshrined with the responsibility to develop and employ the appropriate mechanisms that provide both political and economic stability within its borders. As the tax-collection agent, the state needs to be innovative and responsible in ensuring that all revenues collected are used to maintain a principled political and economic climate or, simply put, to maintain political and economic national security.

In relation to the mineral sector, the state's role is associated with the protection and promotion of the sustainable exploitation of the nation's mineral resource heritage. On the ground, mineral resources have an enormous potential for wealth generation. It is government's role to ensure that the removal of these non-renewable resources is conducted in a manner which will ensure that the long term political and economic stability of the nation is maintained (Eggert, 2002). The African Mining Vision (2009) promotes government's role in ensuring the integration of the mining industry into a nation's economy through the development of mineral linkages to other sectors of the economy and the advancement of the nation state's geo-surveying capacity (Jourdan, 2010).

The strategic importance of the minerals industry forces the state to intervene to ensure that industry practitioners comply with the mineral-hosting nation's mineral policy objectives. The state participation can be associated with economic and non-economic objectives. Non-economic state participation is primarily associated with the state's regulatory function to steer mineral development towards mineral policy objectives, while economic participation is associated with the state's ownership in its domestic mineral sector (ANC, 2012). SAIMM (2012) gives an in-depth illustration of state ownership, which is described as the state owning equity in domestic mineral enterprises. Ownership varies from complete ownership, carried equity agreements, unpaid equity arrangements or even minority equity arrangements (ANC, 2012). In practice, mineral-hosting nations employ control and ownership approaches unique to their respective mineral policy objectives. Naito et al (2001) identified five forms of ownership and control employed by mineral hosting nations, namely:

- **Compulsory joint venturing:** Investors are compelled to enter into joint venture agreements with the state or a state owned entity as the only option to receive a mining right. This approach is generally pursued by countries with a great degree of state intervention in the economy. This regime is not appealing to private investors.
- **Compulsory contracting or participation:** Private investors are compelled to obtain a contract to mineral rights or offer equity to the state or a state owned entity. As practiced in Colombia private investors are forced to enter into adhesion contracts with the state or negotiate exploration and mineral development contracts with state owned entities. This type of regime is entrenched in Botswana's mineral legislation enabling the state to gain equity in all diamond projects.
- **Preferential competition:** This regime offers preferential and superior treatment to the state and state owned enterprises through mineral legislation that grants the state special rights to what it deems to be strategic minerals and areas. In some cases, private entities are allowed to obtain and explore with or compete against the state.

- **Non-preferential competition:** This regime is probably the most practised. The state is allowed to compete with private entities on an equal footing. The state is usually active in the domestic minerals sector through the use of a state owned mining company.
- **Privatisation:** This regime has been adopted by a number of mineral hosting nations who had previously nationalised their economies. Due to the need to attract private investment, the economy has been privatised to entice the private sector.

Regardless of the ownership and control approach employed, the governance of mineral wealth is the most important factor in the realisation of mineral policy objectives. A mineral policy should be linked with other national policies as mining projects are connected with other sectors of the economy. It is important that national policies should be harmonised and that institutional and policy mandate divergence be minimised. Furthermore, the mineral policy should articulate its position relative to other national policies (Otto, 1997). The strategic coordination and alignment of a nation's institutions and policies is essential in ensuring the achievement of mineral policy objectives. The lack of institutional and policy coherence, particularly between the government departments responsible for the realisation of the minerals policy, may lead to the disarticulation of the objectives enshrined in a mineral policy. To achieve institutional and policy coherence several mineral hosting nations have established super economic ministries comprised of all ministries with an economic development mandate. An example of this is Norway, where the ministries of Geological Survey, Mines, and Trade and Industry are combined and managed as a single ministry, rallying towards a central objective of industrialisation. This trend is also evident in Finland, where the ministry of Economic Development and Employment are combined. These institutional arrangements are termed Coherent Minerals Governance (ANC, 2012).

In conclusion, the state's overall responsibility is to protect the interests of its citizens. The state is bestowed with the important responsibility of utilising its mineral resources for the empowerment of its citizens. The state should employ the correct regulatory instruments to utilise its mineral wealth for the empowerment of its people. It can achieve this through adequate mineral regulation and/or direct participation through ownership in its domestic mineral industry by using any of the following five forms of ownership. These are: compulsory joint venturing, compulsory contracting or participation, preferential competition, non-preferential competition, and privatisation.

The type of mineral ownership adopted should be aligned to other national policies to achieve policy coherence across the various sectors of the economy. Policy harmonisation is important as the mining sector impacts other sectors of the economy, and is not a stand-alone sector as it is usually perceived to be.

#### 4. THE MINERAL-HOSTING NATION'S REGULATORY FUNCTION

This chapter discusses the fundamental elements considered by a host nation when deciding on granting permission to investors for the exploitation of its mineral resource heritage. The chapter also assesses the capacity required to adequately administer the minerals sector. The assessment also investigates the type of authority required to manage the minerals sector.

The chapter then goes on to assess the contemporary principles which guide mineral-hosting nations on the approaches to be employed when participating in mineral development projects where the host nation is an equity partner with the private investor. In such a partnership it aims to unearth an equal risk sharing formulae between the state and the private investor.

Additionally, this chapter looks at various instruments that mineral-hosting nations employ in directing their respective mineral industries in contributing to economic development. It further discusses the different models used by Indonesia, Philippines and Chile in linking mineral development projects with the host nations overall national economic development objectives.

Tsikata (2004) declared that in customary international law, a sovereign state has the right to decide on the foreign investors it will allow within its borders, as well as sectors and areas that foreign investors can operate in coupled with the terms of operation. In relation to permitting foreign investors to gain access to states' mineral resources, the following four themes, as identified by Tsikata (2004), are commonly used as mechanisms by mineral hosting governments to grant permission to mineral exploitation:

1. *“The determination of areas available.*
2. *How decisions regarding grants are made.*
3. *Who is empowered to make a grant or who participates in the decision;*  
*and*
4. *Concerns arising from environmental considerations”*

(Tsikata, 2004; pp 51)

A host nation's mineral regulatory framework gives expression to that nation's minerals policy. The implementation of a mineral law can be conducted through various state agencies and government administrative devices. These need to adhere to and reflect the various sectorial conditions within the mining legislation impacting on other sectors of the economy, which usually include the environment, tax, land, labour, housing, and safety. Although various methods are adopted in mineral regulatory frameworks, the following three trends are often used:

1. Both exploration and mining rights emanate from a central authorisation awarded as a lease, licence or concession granted using a law which applies uniformly to the granting of rights and the associated obligations for each type of mineral resource.
2. Obligations are clearly illustrated in an agreement which overtakes the overall mineral regulatory framework of a mineral-hosting nation.
3. In other cases, obligations and responsibilities associated with holding a mineral right are usually conducted in an ad-hoc manner to complement or overtake the overarching mineral legislation.

(Otto, 1997)

The mineral legislation needs to clearly reflect the legal requirements for mineral exploitation in a particular country. This, therefore, requires that the legislation should be aligned to the political and economic climate at the time when a foreign investor aims to exploit a nation's mineral resource (Barberis, 1998). Mutemeri et al (2010) suggests that an adequate mineral regulatory framework should not only illustrate government's requirements relating to mineral development projects but should also ensure that mineral hosting nations are able to benefit from their mineral sector. As noted by Otto (1997) in practice, mineral legislation can be implemented with emphasis being given to the legal elements of a Minerals Act to coerce holders of mineral rights to operate within the realms of the mineral

legislation while other host nations have opted to focus on practical solutions developed for a specific case.

To be effective in regulating the unique projects within the sector, host governments use regulatory devices aligned to the distinctiveness of a mineral development project. Both ad-hoc and model agreements are used. Ad-hoc agreements are associated with an agreement that is developed particularly in line with the unique characteristics of a particular mineral development project, while model agreements are utilised to regulate a number of mining projects who have similar characteristics. The general practice observed thus far, as pointed out by Otto (1997), is that the agreement reached between a mineral-hosting nation and the private investor supersedes the general mining legislation. This usually happens when the agreement does not disrupt public order. These negotiated agreements are generally associated with large mining projects where the agreement is required to be aligned to all the operational agreements pertaining to the lenders, government, contractors, company, local community, and labour.

Barberis (1998) complimented the views advocated by Otto (1997) as she argued that in cases where the mineral legislation is outdated or it no longer reflects the mineral-hosting nation's contemporary position regarding its mineral resources, the drafting of Mining Agreements (MAs) has proven to be beneficial to both parties. The mining law still is used as the legal authority to guide mineral exploitation. MAs are identified as adequate instruments to articulate a mineral-hosting nation's mineral policy as they can also be used to declare the contemporary position of the mineral-hosting nation. This has proven to be advantageous for both the state and the investor as the MA can be formulated according to the actual project at hand and aligned to both the prevailing domestic and international economic as well as political conditions (Barberis, 1998). MAs have been described as being advantageous in several respects as, among others, they enable the mineral hosting government to implement its mineral policy without having to constantly revise its mineral legislation, thereby providing relief

to investors as a contract creates a level of stability. Other advantages of MAs are listed below as identified by Barberis (1998), namely:

- *“In the absence of centralised legislative bodies in the world arena, agreements represent the closest approach to a considered and deliberate prescription of future policies, a process that is the characteristic function of constitutive and legislative bodies in the municipal arena.*
- *Agreements create uniformity of expectations, a uniformity that may ultimately have the force of law.*
- *Agreements are persuasive strategies for the possession and sharing of values.*
- *MAs are the best means for the government to adapt the national investment environment to match its current policy. Because they are such rapid vehicles of government policy, MAs can be used to tackle modern issues which are not dealt with in out-dated Mining Codes.*
- *Moreover, a single MA is needed to provide for the numerous issues that would otherwise require a multiplicity of permits and administrative authorisations.*
- *The MA also has the advantage of providing for the technical complexity connected with the multiple issues of large-scale projects. Indeed, due to the important size of large-mining projects, some contractual clauses such as the tax computation issues, as well as security and environmental issues will require more detailed complicated and unique solutions. The technology used in large-scale projects will also be more complex and must be adapted to the mine’s characteristics.*
- *In addition the Foreign Mining Company (FMC) and/or the Government may wish to use rules that are different from those stated in the legislated provisions. For example, the investor may seek to pay lower than expected economic rents, and the Government may require more stringent conditions regarding environmental protection. Furthermore, infrastructure agreements maybe needed to determine which of the parties*

*will provide the infrastructure necessary for the exploitation of the mine and the transportation of the minerals; to analyse the technical complexity; to discuss the uncertainties and to solve the detailed and difficult questions – all issues which stem from the scale of the project.*

- *Another reason for using MAs is that they may deal with local concerns in a better fashion. Besides the great principle of policy expressed in a country's laws and regulations regarding the protection of native people, the impact of the exploitation of natural resources on a local community can be tackled in detail in a negotiated agreement. These issues may be part of the main agreement concluded between the FMC and the Host Country (HC) on behalf of the local community. Another possibility for the mining investor is to negotiate directly with the local community. This formula has been used recently in the USA and in Australia. In Indonesia, the impact of mining on the local community is always addressed locally. If any resettlement is required, this will be negotiated by a team usually consisting of local leaders, regional government representatives, possibly a representative of the Mines Department from the central government, and company representatives.*
- *Finally, another advantage in using a contractual regime to grant a mining lease lies in the investors' belief that this system may give the deal certain stability. When mining rights are granted through a regulatory system, the investors may fear that some subsequent government legislation might modify the clauses of the mining authorisation, thus leading to substantial changes in rights and obligation. In such a case, the foreign investor has practically no recourse, and may have little option but to comply with the new 'rules of the game'. Therefore, when investors are suspicious of how a government may use its legislative powers, they may look for the relative stability provided by an MA.*
- *However, an MA is certainly not an absolute guarantee of the stability of the contractual provisions, despite the principle of 'sanctity of contract'. Indeed, this principle is not always respected by national governments*

*and, once again, the investors risk seeing the contractual clauses unilaterally modified during the life of the contract”*(Barberis, 1998, pp 50-51)

#### **4.1. Delegation of Authority in the Issuing of Mineral Rights**

The guiding principles in the granting of mineral rights need to be clearly articulated in the mineral law with regard to the issuing of those rights and the regulation of their use. International best practise shows that the authority to establish these principles should not be vested to the delegated executive authority or governmental unit as the decision regarding the granting of mineral rights will be subjective and exposed to the discretion of one individual or governmental unit without offering the courts the opportunity to offer legal oversight. As practised in other leading mining jurisdictions such as Chile, Mexico, Bolivia and Peru, the steps taken to grant mineral rights is outlined in the mineral law as opposed to being left at the discretion of a senior government official responsible for the regulation of the mineral industry. Other mineral hosting states such as Botswana, Madagascar, Tanzania and Mongolia have practiced this method (Barberis, 1998; Otto and Cordes, 2002). However, in circumstances where the Minister or a senior government official has the authority to grant mineral rights, there is merit in developing mechanisms and steps that will be prescribed in the mineral law as guidelines to be followed in the issuing of those rights. This will offer some degree of objectivity in the steps followed in the issuing of mineral rights as it is important for investors to understand the process as they would have already spent substantial amounts of money on exploration activities. Furthermore, it is inconceivable that a single person will be able to constantly approve mining rights in a situation where a country is receiving continuous investment, unless the responsibility can be shared or delegated to other competent state officials (Barberis, 1998).

## **4.2. Access to Mineral Resources by Companies**

Mutemeri et al (2010) asserts that traditionally two processes are utilised in allocating mineral rights: the competitive, or what has become known as the tender process, and the free-entry system. Bello et al (2013) states that it is common for mineral legislation to accommodate both processes provided that they are not utilised simultaneously. These processes are merely used for managing the allocation of mineral rights and are not a methodology. The adopting of one of these processes is influenced by the following factors as discussed by Mutemeri et al (2010):

- The high risk associated with a mineral host nation that has very limited geological knowledge of its mineral heritage, the free-entry system is mostly likely to be employed.
- The greater availability of geological information insures a less risky investment environment and results in a higher possibility of employing the competitive tender process.

Otto (1997) argued that the competitive bidding system in the allocation of mineral rights has a potential to resolve tension associated with conflicting application conditions. He went on to state that the bidding system was mostly used to allocate oil exploration tracts and that the process was very challenging to implement in the mining industry., as evidenced in the fact that many Asian and transitional economies endowed with mineral resources found the bidding system to be problematic and, ultimately, unsuccessful Bello et al (2013) maintained that competitive resource allocation systems is a useful alternative method in the allocation of mineral prospecting and mining rights when one considers the following positive attributes of the competitive resource allocation systems, namely :

- Offers the mineral hosting nation the potential to acquire a significant share of economic rents of mineral resources.
- Compels the state to have a good knowledge of its mineral resource heritage as this information is required in the auctioning process.

- Well-designed competitive resource allocation systems promote the enforcement of greater transparency in the rights allocation process.
- Competitive bidding systems have the potential to specify clear and transparent rights allocation processes and procedures which can decrease prospects of abuse and corruption.

To successfully implement a well-structured competitive bidding system, a fair market related evaluation criteria needs to be utilised with geological information, timelines and all of the bidding information to be presented and understood by potential bidders (Bello et al, 2013). As illustrated by Barberis (1998), access to mineral reserves of a sovereign state is largely aligned to that nation's culture and attitude towards foreign investors. Countries who endorse liberal economic policies tend to have fewer restrictions on access to their mineral resources while mineral-hosting nations that have adopted less liberal policies customarily develop policy mechanisms that form entry barriers to the exploitation of their non-renewable mineral resource heritage. Various mineral policy instruments are utilised by mineral hosting nations to grant access for mineral resource exploitation. These instruments include liberating reserves, maintaining an open title registry, the provision of mineral rights through standardised agreements or permits/leases.

#### *4.2.1. Liberating reserves*

Liberating of reserves is usually practised by mineral-hosting nations who embraced previously socialist policies and are now moving towards more liberal, investor friendly regimes by freeing unexplored and exploited territories that had been reserved for state owned enterprises. Numerous policy and legislative instruments are developed to enable the private sector to gain access to previously state owned mineral holdings as an effort to attract Foreign Direct Investment (FDI). Joint ventures (JVs) between SOEs and the private sector can be pursued. SOEs are expected to adhere to the overarching mineral legislative framework and compete with private mining companies. This move compels the state to release a portion of its mineral holdings to avoid unproductive costs. Host nations have

generally favoured JVs if there are mineral assets deemed to be valuable and of strategic economic importance or engage in public mining auctions of areas where the state has already conducted primary exploration activities with known deposits with less strategic importance (Naito et al 2001).

#### *4.2.2. Maintaining an open title registry*

An open title registry has become a common feature in a number of mineral jurisdictions who enjoy different levels of economic development such as in Canada, Australia, the United States of America (USA), Chile, Mexico, Botswana, Tanzania and the People's Republic of China (PRC). These countries use an open title registry, which is a system that offers potential investors an insight into the existence of mineral deposits, available deposits and areas that have already been awarded for mineral development projects. This system has proven to reduce the time associated with the issuing of mineral rights as the system is comprised of a mining cadastre (a system which locates exploration and mining claim areas). It is integrated onto a computerised mineral title recording system that has a standardised shape and form of concessions that enables the identification of a boundary to assist the state in not overlapping claims. (Naito et al 2001)

In practice, mineral-hosting nations use an open title registry system that is unique to their concerns and requirements as there is an existence of irregularly shaped concessions which enable the exact tracking of an ore body and to avoid excess holdings. These are harder to administer as they require close inspection, making them longer to process and they have proven to be erroneous. However, other nations have adopted easier to administer title mining cadastre systems, made up of a quadrangles scheme that represents a grid based property boundary oriented north-south and east-west using UTM or latitude/longitude coordinates (Naito et al 2001).

#### *4.2.3. Providing rights through standardised agreements or permits/leases*

These are rights that have been developed in order to ease the burden of administering different mineral rights, permits, and leases and aimed at enabling good administrative capacity as all mineral development projects will be administered on the same set of rules and principles as opposed to ad-hoc mining contractual arrangements. However there is still a tendency of mining rights being complimented with applicable contractual obligations, which usually exhibit the following features:

- The exact conditions of government's participation in a mining project is clearly illustrated, whether the state's involvement is direct or indirect, as practised in Botswana for all diamond development projects.
- The terms applicable to a specific mineral investment are articulated in addition to the mineral legislative requirements. This can be applied to mineral development projects where the commodity has a strategic value or use for industrialisation or the commodity may need special operational requirements to protect the environment from various negative impacts. These may emanate from the exploitation of harmful radioactive particles from uranium and other mineral commodities.
- The additional contractual obligation may be put in place aimed at complimenting the already existing mineral legislation or to merely stabilise fiscal and legislative requirements, as practised in Chile and Peru.

(Naito et al, 2001)

Practise shows that mineral hosting nations generally make mining contracts that have conditions of investment which are standardised and compulsory while stabilisation agreements have tended to vary and are usually optional.

### **4.3. Contracts and Conditions for Government Participation**

Mineral-hosting nations use numerous devices to enable their respective minerals sectors to contribute to the advancement of national development objectives. The imposition of taxes on private mining companies is used to enable private entities to compensate the nation for the depletion of its non-renewable mineral resources. Taxes are also used for the compensation of the environmental problems emanating from a mining project (Otto and Cordes, 2002). Mineral-hosting nations also use their administrative authority to direct the mining industry to contribute to Human Resource Development (HRD) and industrial diversification (Walker, 2004; Jourdan, 2010). Numerous countries have created state mining entities with the mandate of exploring and mining on behalf of its citizens to meet several policy objectives, mainly ideologies, such as socialism or economic decolonization, which is an act of demonstrating permanent sovereignty over natural resources. These state entities could also be formed to capture natural resource rents to increase capital intensiveness because of a weak private sector or to maximise government revenue and to promote national social objectives (Otto, 1997; Otto and Cordes, 2002).

When the state is both the regulator and operator of a mining company, it is essential that the state's participation be clearly defined, coupled with clear guidelines illustrating the exact size of the government's share, the state's contribution and the manner in which it will practise its authority over project decision making in a project that is comprised of both the state and a private entity. Furthermore, a sensitive matter is the method adopted by the government in accumulating equity in a mining project. Naito et al (2001) insisted that the common practise has been that the larger the government's share in a mining project, the lesser the government is willing to pay for it. It is further stated that in such a case, the investor generally demands more fiscal concessions as some private mining companies may support being part of a project that has the state as a strategic partner, provided that the project will receive strategic preferential political support. It is also argued that private investors are cautious of projects

where the state enjoys majority shareholding as this may compromise a technically skilled private investor's ability to guide mineral project economics.

Another important issue in mining contracts with government participation is the timing of the negotiation and execution of government participation contracts. Naito et al (2001) indicated that the real concern is centred on whether or not the contract for state participation is fully negotiable as the observed tendency has been for host governments preferring to negotiate and effect participation contracts at the time an investor applies for a mining lease. At this phase of a mining project the private investor has taken most of the risk associated with exploration activities and can confirm all the relevant information about a deposit and its development prospects. This has been practiced in Papua New Guinea and in Botswana for diamonds.

It was further argued by Naito et al (2001) that private investors prefer to complete all agreements pertaining to a mining development project involving the host nation early on during the exploration phase of the project so as to enable both parties to share the financial risk associated with financially intensive exploration activities. He went on to illustrate that although private investors generally prefer to negotiate contracts with government participation at the beginning of the exploration phase, these negotiations are costly, especially for junior miners and those entities that have an interest in developing large deposits. It is also morally questionable for the state to commit public funds on highly risky financially intensive exploration activities.

The state's involvement in mineral development projects partnering with the private sector requires strategic ownership and management models aimed at enabling the project to be beneficial for both parties. The World Bank conducted a study in 2011 on the requirements, capacity and institutional obligations for a State Mining Enterprise (SME) to be successful. The findings point to the following elements as being essential ingredients for a SME to be successful:

- A SME must have a strong governing body in the form of a Board of Directors with members who are independent and have sufficient experience and knowledge of the mining sector, including finance in mining both domestically and internationally. The day-to-day management of the SME should be placed in the hands of experienced and motivated professional managers who know both the mining industry and the country's specific conditions.
- The government should not consider a mining company as a mere revenue generator to cover budgetary deficits or other demands for money, skills or capital elsewhere in the national economy; however required reinvestments must be continuous where necessary. Although annual profits from a state-owned mining company to the state is justified, these contributions must be appropriate compared to the size and profitability of the company.
- There is a need, especially for politicians, to understand that it takes 10–15 years to develop a mine and that the industry is a high risk sector. If this understanding is lacking, hopes for quick results and short-term gains will be expected and when not realized this will be a disappointment to parliamentarians and their electorate.
- Mining is also a highly capital intensive industry with high risks of failure for a new project. There are a number of risks which include geological, mining, metallurgical, market and financial risks. If the company does not have financial muscle to operate for a number of years without positive cash flow, it will fail regardless of whether the owner is a state or private investor.
- A state company must be competitive whilst subjected to the same competitive conditions as its international peers. Taxes, royalties and other fees should be levied as per the industry standards in the country.
- Most state-controlled companies in the mining sector have been 100 percent state owned with a few exceptions such as the Outokumpu Company, the capital of which was partially listed on the Helsinki stock exchange. *“In the case of developing country companies, partial*

*privatizations have been carried out, with mostly positive results, such as in Indonesia. For new state-owned enterprises it could be of interest to create a mixed capital type of company with a set timetable for gradual transfer of ownership from the state to private national entities and investors on a jointly agreed timetable” (World Bank, 2011)*

Naito et al (2001) shed more light on these elements by illustrating his interpretation from mineral hosting nations who enjoy state equity participation. These can be summarised as being a shift away from free carried equity by the state, entering into a standard agreement between the private investor and the state before significant exploration expenditure is incurred and the state should be a minority shareholder where the investor has an operating and marketing control over the project within reasonable limits (Naito et al, 2001).

#### **4.4. Mineral Investment Contractual Obligations**

Sovereign states determine the contractual obligations for investments into their mineral sector. In essence, these should include a clear illustration of the terms and conditions governing private investor’s requirements to gain access to mineral resources in the form of mineral licensing regimes, permits or concessions which outline mining related fiscal terms, foreign exchange terms and mineral marketing obligations (Tsikata, 2004). These mineral sector investment contracts are different to those which enable the state to be granted ownership in mineral development projects. These are implemented to enable mineral development to be linked to broader national economic development compelling foreign investors to develop economic linkages within the national economy. Numerous mechanisms are used to achieve the latter; however, Indonesia’s Contract of Work (COW) mineral investment contractual arrangements stand out as the most effective. The COW has proven to be successful mainly because it fully clarifies the provisions concerning the development, operating, monitoring and evaluation of a mineral development project from the early prospecting stages, through mine operation and closure. Central to COW is the consultative process from the highest political office which enables the President of Indonesia, in co-operation

with the country's Investment Co-ordinating Board, and Parliament to approve all the fiscal and environmental contractual obligations for a mining project, which is approved both by the Minister of Mines and Energy and the appropriate representative from the private mining company. The COW has progressive aspects which include the fact that it is comprehensive as it deals with all fiscal and legal areas and it only changes every few years from generation to generation and not from project to project. Furthermore, it is entered into at the beginning of prospecting activity, thus providing early knowledge of the terms that will apply for the project (Barberis, 1998).

The Indonesian COW model enforces firm time limits for each phase of a mineral development project, which impedes the flexibility of the duration of the mineral development project. When compared to the Philippines' Mining Act of 1995, which introduced similar mineral investment contractual requirements as those imposed by Indonesia's COW, the big difference is that the Philippines' 1995 Minerals Act offers private investors the opportunity to acquire full mineral rights ownership when private investors invest in large scale and financially intensive mineral resource exploration and development. For the above to take place, investors need to enter into a mineral investment contract with the state of Philippines in the form of Financial or Technical Assistance Agreements (FTAAs). The FTAAs contractual arrangement requires a minimum investment commitment of US\$50 million for infrastructure and mine development put together by the Department of Environment and Natural Resources for consideration by the President of Philippines (Barberis, 1998).

Mineral-hosting nations have various instruments at their disposal to enable them to direct their respective mineral industries to contribute to economic development. State equity participation in mineral development projects is one option while the development of standardised contract governing investment conditions is another option. Other observed mineral development contractual arrangements include mineral fiscal and legislative arrangements aimed at

providing investors with mineral sector regulatory certainty for times when a mineral hosting nation experiences changes in political leadership, tax legislation and/or change in investment legislation. Mineral investment stabilisation agreements simply provide assurance to investors that the known mineral law provisions will not change or be made more burdensome to investors during a mine's life cycle (Barberis, 1998).

These stabilisation agreements are helpful and provide comfort against any potential changes in a mineral-hosting nation's licensing regime; for example, tax reform has been practiced in Latin America by Chile through its Foreign Investment Law of 1974 (DL 600). Stabilisation agreements are used as overall contractual agreements for a number of sectors in the Chilean economy. In practise, the stabilisation agreement is important in fiscal terms in that it offers foreign investors foreign exchange access and freedom, little restrictions imposed on exports for a period of 20 years for investment of at least US\$50 million, and 10 years with no minimum investment. However, a total effective income tax rate of 42%, which is much higher than the Chilean effective tax rate, is imposed during the term of the stabilisation agreement (Barberis, 1998). In Peru, stabilisation agreements have been offered to both domestic and foreign investors that require a minimum investment of US\$2 million for a 10 year agreement and US\$20 million in a new mining operation, or US\$50 million in an expansion project for a 15 year agreement. In the Peruvian model, the annual income tax rate comes into effect from inception of the stabilisation agreement with standardised and non-negotiable terms (Barberis, 1998).

Although mineral-hosting nations grant mineral rights based on objective procedures and processes, the deciding factor is whether the investor is offering the mineral-hosting nation the most beneficial terms in return for the mineral rights. This explains most mineral-hosting nation's requests of proof of financial and technical capacity from mineral rights applicants. In fact, this requirement is usually in the mineral legislative framework. However, the time required to

evaluate the financial and technical capabilities has tended to be cumbersome and has also been filled with corrupt practices. This practise also discriminates against new start up mineral investment vehicles that are not highly capitalised but have adequate prospecting and business acumen. In most cases, these types of investors are offered mineral rights when there are no highly capitalised investors competing for the same mineral rights or when the mineral- hosting nation's investment climate is not attractive to major investors. The equitable treatment is that the opportunity should be given to any investor provided that they are willing to take on the associated risks as pursued by most Latin American countries most notably Chile, Peru, Bolivia, and Mexico. The tendency with mineral endowed Latin American countries has been to grant mineral rights on a strictly first come, first served basis based on the notion that the mineral right holder has the freedom to explore, develop or even transfer his mineral rights to an entity that is best suited to develop the project further (Barberis, 1998).

In fact, in order to encourage investment in exploration activities, these Latin American countries generally allow transferability of exploration and mining rights. Such a practise has enabled these countries to enjoy the highest amount of Greenfield mineral development projects coupled with a continuous number of prospects in the development pipeline. Furthermore, the mineral policy on the full transferability of title has contributed to the further investment and development of sustainable secondary markets in which exploration and mining titles are transferred at high costs. This process has proven to be fair and decreases the time associated with the processing of exploration and mineral right applications substantially. It is also noted that linking the fees paid by titleholders in an open title registry with the strict principle of first come, first served enables the titleholder's fees to pay for the title registry's system's maintenance costs.

In conclusion sovereign nations have the right to accept and /or to deny investors into their domestic mineral economy. In practise the areas available, how granting of exploration or mining rights takes place and by whom and the

consideration of the environment are the four factors used as criteria to grant permission to invest. Granting permission to invest relies on the overall host nation's government, this includes all sectors of the economy that will be affected by the venture being satisfied with the investment proposal.

Various methods are used in a mineral regulatory framework to articulate the host nation's mineral policy objectives. In some cases certain regulatory devices have to cater for the uniqueness of a mineral development project. MAs are mostly used in these unique cases especially when the mineral regulatory regime is outdated or no longer reflects contemporary political and economic interests. The authority to grant and regulate mining rights should be clearly expressed. This authority can either be delegated to a government unit or to the executive authority. Clear legislated guidelines are essential when authority to grant mining rights is vested in the executive authority

The competitive (tender process) and the free-entry system are generally the two mineral rights allocation methods commonly utilised internationally. To grant access for mineral exploitation host nations can either, free-up known reserves, provide an open title-registry or provide mineral rights through standardised agreements or permits/leases.

Mineral regulation is used to coerce the mining industry to compensate the host nation for the removal of its non-renewable resources by using a variety of instruments which include the imposition of taxes, requirements for mining entities to contribute to industrial diversification and the creation of state owned mining entities. In cases where the state both regulates and participates in the mining industry clear flawless legislated guidelines are required, which explain the exact size of the government's stake and how its shares are acquired coupled with its roles and responsibilities in mineral development projects where the state

partners with a private entity. In order for both parties to share the risk associated with a financially intensive mineral investment project, the state's role and responsibilities need to be finalised early during the exploration phase of the project and free equity by the state needs to be discouraged. What is evident is that the SME's should be operated effectively as a fully-fledged entity that is aimed at making profit and also contributing to socio economic requirements. Profits generated by the SME should not only be used to fund state budgetary deficits. As a fully-fledged entity the SME should constantly maintain a strong balance sheet and be allowed to retain a portion of its earnings to fund its operational expenses and expansion.

Host nations contractual obligations should clearly stipulate the terms and conditions for investment aimed at linking the mining industry with other sectors of the economy. The Indonesian model, known as COW, seems to be effective as it clearly expresses the monitoring of the contractual obligations throughout the value chain as it outlines the requirements pertaining to the exploration phase, the mining phase and mine closure.

Mining fiscal and legislative arrangements may be established solely to provide certainty, especially to reassure investors of no fiscal or regulatory changes if and when the political regime changes. These agreements are designated as mineral investment stabilisation agreements. The requirement for proof of financial and technical capacity from mineral rights applicants is essential but can be seen to discriminate against new entrants. This can be resolved by using the first come, first served method to enable new entrants to explore, develop or even transfer the mineral right to an entity that has the capacity to develop it further. Transferability of mineral rights is important in encouraging and in growing exploration activities which increase Greenfield projects and a number of future mining projects.

## 5. SECURITY OF TENURE

This chapter aims to evaluate the manner in which both the host nations' and investors' concerns and interests can be balanced. The chapter is focused on understanding how a host nation can guarantee security of tenure whilst it also maintains its political responsibility as the custodian of the nation's mineral wealth. The chapter also attempts to define the different phases of a mineral resource project and aims to recommend a plausible process in the administering of the cancellation of tenure.

Mineral resource exploitation is both technically and financially intensive. Investors' main concerns in relation to supporting a mineral resource development project are largely influenced by making sure that the mineral right attained will be sustained for the duration of the project. Of special interest to prospective investors is that this right should not be interfered with by government authorities or other third parties that may be interested in the same ore body. The mere fact that a mineral project is associated with significant investment prior to the investors receiving returns on investments promotes the notion amongst investors that the duration of the mineral right should be of an adequate timespan that will allow the investor to conduct all the necessary activities. Tsikata (2004) advocated that mineral production rights should enable unhindered recovery of exploration and development costs while also guaranteeing investors a comfortable return on their investment. The observed perception is that mineral-hosting nations prefer to develop mineral policies and supporting legislations that will promote the sustainable exploitation of their mineral resource heritage with strict requirements for private investors to adhere to socio-economic development and environmental protection obligations (Pedro, 2007).

The rate at which a mineral development project proceeds from the exploration phase to mineral development is largely influenced by the mineral-hosting government's policies as well as legislation and administrative capacity. Mineral

legislation which imposes timeframes on a mineral project may impose the appropriate pressure on the project to enable it to meet its project target in the planned time. On the other hand, this feature can also retard project economics and compel investors to secure ore bodies in mineral-hosting nations that have a mineral legislation that does not allow government to set mineral project development timeframes. With this background, it is of strategic importance that both the interests of the investor and that of the host nation are adhered to (Naito et al, 2001; Tsikata, 2004). The mineral right holder should independently develop the mineral resource development project while adhering to the regulatory requirements of that particular mineral-hosting nation. These could include a requirement for the mining project to recruit its labour force from the communities proximate to the mining project and/or employ environmental protection measures in all aspects of the mineral resource development project (Naito et al, 2001).

It is common practise that exploration rights are given for a short duration of time with a majority of exploration rights granted between one and three years (Tsikata, 2004). Even decades ago when mines were small, the time period allowed for exploration was very short and this is still the case with the existence of large mining projects. The latter can be explained to be due to the use of more modern and sophisticated exploration instruments which include geological surveys, tectonic and structural interpretation, airborne and ground geophysics, stream sediment and soil sampling, geochemistry, drilling and geological modelling. These modern tools have proven to have the capacity to detect hidden and exposed ore bodies (Otto and Cordes, 2002).

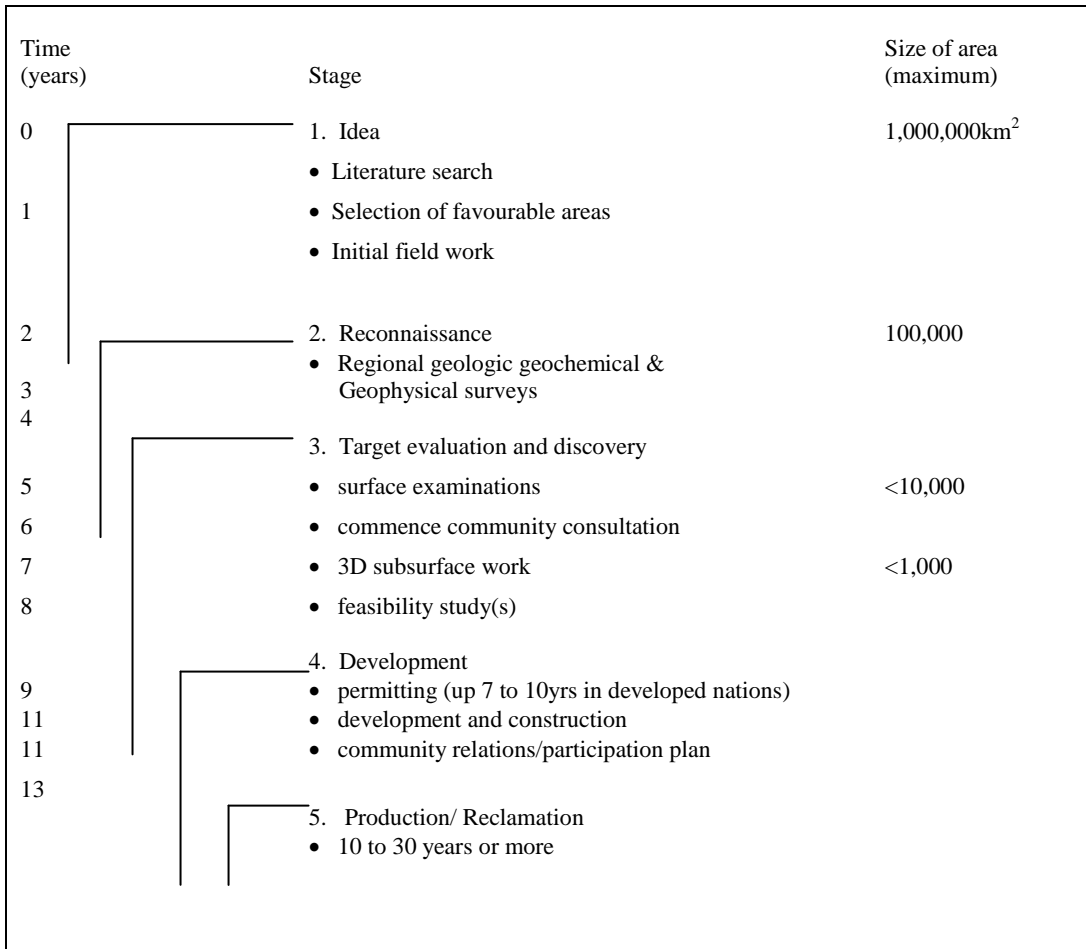
The granting of exploration rights has naturally being associated with an option of renewal of these rights provided the holder has adhered to the required regulatory obligations. Various mechanisms can be imposed by the mineral hosting nations at the exploration right renewal phase which can include the holder being obligated to relinquish a certain percentage of the area covered by the old

exploration right. This is done in order to enable the mineral-hosting nation to discourage the speculative holding of land that may be of interest to other investors (Otto and Cordes, 2002). Furthermore, the mineral-hosting nation can impose structured rental fees. These fees are designed to escalate the longer an area is held under an exploration licence. Not all mineral laws offer an exploration licence holder automatic access to be granted a mining licence. A criterion can be established by holders of exploration rights to be granted a mining right, especially where the exploration right holder has found a commercially exploitable deposit. The final decision as to whether the criteria to be granted a mineral right is catered for can be decided by the courts through the application of both objective judgements based on facts, with the assistance of technical experts (Otto, 1997; Tsikata, 2004).

Tsikata (2004) identified that one of the most concerning aspects regarding security of tenure is whether or not the holder has exclusive rights to the area concerned or the holder has to share the area with other entities. This concern emanates from the fact that certain exploration rights, including the right to conduct aerial reconnaissance surveys, are difficult to make exclusive rights as compared to those that are associated with physical work on a particular property. He noted that it is easier to grant exclusive rights to an entity conducting physical work on land and even grant them exclusive rights to a specific mineral or to all minerals within that particular land. The exploration right needs to clearly illustrate its perimeters, whether the exploration right offers access to all the minerals in that particular area or it is limited to specific minerals. In most cases, it has proven to be less complicated when the exploration right is granted for all minerals and the holder of the right is given the right to negotiate the condition with third parties that may be interested in the minerals other than those that the holder is focused on. In order to explain the different types of tenure that can be granted to a mineral development project, it is useful to explain the exploration and development of a medium to large-scale mine, as illustrated in Table 2 below.

**Table 2: The Exploration and Development of a Medium to Large-scale Mine**

Source: Otto and Cordes (2002)



A mineral resource project can generally be explained in the following phases: namely, prospecting, exploration, construction and development, mining, and mine closure or reclamation. The phases can be administered by a number of different rights, which is referred to as a multi licensing scheme, or by one single right, referred to as a single licensing scheme. In other cases, the type and size of a mineral deposit can determine the type of mineral rights granted by the mineral-hosting nation (Naito et al, 2001). The different types of mineral rights tenure are ad hoc exploration tenure, open-ended or long duration exploration tenure, and extensions to defined exploration tenure. These are discussed below.

### **5.1. Ad hoc exploration tenure**

This approach enables the mineral-hosting nation to grant an exploration right on an ad hoc basis enabling the granter to be flexible in setting the time period for the exploration right. Mineral regimes that utilise MAs are prone to using this ad hoc exploration tenure approach. This approach is full of uncertainty as there are no predefined conditions in relation to the time period for the existence of the right.

### **5.2. Open-ended or long duration exploration tenure**

This approach is associated with set-time duration for the exploration period. In most cases, a period of ten or more years has been allowed. Several mechanisms are utilised which include a defined amount of work which needs to be completed within a specific time period and the imposition of land rental or a land area relinquishment schedule. The practical experience with this approach emanates from the Mining Act of Alberta, Canada, which allows an exploration permit to grant an exploration right for a ten year period. Furthermore, the regulation goes further to state that if the rights holders do not satisfy statutory obligations, which include escalating minimum expenditure work requirements, the permit can be terminated.

### **5.3. Extensions to defined exploration tenure**

This approach sets a standard base period whereby an extension or renewal may be applied for and will only be granted if the applicant meets the established criteria. The standard base period may be illustrated within a mining code or through a model mineral agreement. Another model used to effect this approach may be the automatic right to renewal to enable an applicant to be granted a prospecting licence or a small-scale exploration title. At inception, the initial licence period is two years. After this period, provided the holder has complied with all regulatory provisions of the licence, the Minister is expected to increase the licence term for another two years. This method has been developed to maintain the role of the independent low budget prospector in the mineral-hosting

nations' exploration industry, usually associated with an area that is less than 200 hectares. Another model worth mentioning is the Discretionary Extension (under a Mining Code or a Model agreement). With this model, the holder is granted five year tenure. Extension can be granted for another period and the holder needs to apply for this extension by submitting a comprehensive report illustrating the actual work that has already been completed coupled with the work recommended for the extension period. The COW sets out the following four time-limits during the mineral project development phase.

General survey period	1.5 years from contract signature
Exploration period	3 years
Feasibility study period	1 year (extension possible)
Construction period	3 years (extension possible)
<hr/>	
Total without extension	8.5 years

(Naito et al (2001))

#### **5.4. Continuity of tenure**

The financial intensity and high risk associated with exploration activities ensures that investors in exploration activities require a clear link between being granted an exploration license and being granted the right to mine the mineral resource found. The reality is that the majority of mineral-hosting nations issue single mining licenses related to each phase of the mineral development project namely, of prospecting or exploration through to production and marketing (Otto, 1997). Assurances are offered in some form of binding agreement. This is to ensure that the holder of exploration rights will be granted a corresponding mining right where the holder of the exploration right has the ultimate right to receive a mining right within his respective area of exploration without having to produce proof of the existence of a commercially viable mineral deposit or the entities financial or technical ability to exploit the ore body. Instead the former exploration right holder who gets granted a mining right will be expected to pay a very high fee per

hectare of land being mined, this fee is much higher than the one paid during the exploration phase (Naito et al, 2001).

Certain obligations are usually associated with the granting of a mining right. These can be summarised as an approved Socio-Economic Impact Assessment (SEIA), an Environmental Management Plan (EMP), and a Mining Works Programme (MWP) mainly as legislated obligations and the mining company's social right to operate. In certain cases, the mining rights are transferable to enable owners of the mining right to be able to allocate these rights to an entity that has the optimum capability to develop the ore body. However, some mineral-hosting jurisdictions do not strongly emphasise the link between holding an exploration right and receiving of mining right (Otto, 1997). In these jurisdictions, such as the People's Republic of China (PRC) and India, investors can apply for a mining right within a designated exploration area provided the applicant of the mining right provides compulsory information such as feasibility studies, a mining plan and Environmental Impact Assessment (EIA) as proof that (i) the applicant has both the financial and technical capacity to develop the mineral project, (ii) an adequate environmental management programme will be in place, and (iii) the mining project will contribute towards socio-economic empowerment of communities proximate to its operations (Tsikata, 2004; Naito et al, 2001).

Generally, investors in mining projects favour a regulatory regime that clearly demonstrates a passage from holding an exploration right to being issued with a mining right (Otto and Cordes, 2002). There has been a general discomfort with mineral-hosting nations that leave the mining right granting process to the discretion of the Minister of mineral resources without the existence of a transparent objective process and adjudication procedures which can ultimately provide for recourse to international arbitration in the event of a dispute (Naito et al, 2001).

#### *5.4.1. Maintenance of a mining licence*

For maintaining a license, there are normally fees that are required and these can be subdivided into annual fees based on the project's surface area, and the minimum expenditure requirements (Otto, 1997). With the annual surface area fees model, the mineral right holder is expected to make regular periodic payments to the state, influenced by the size of the surface of the mining project. The periodic amount should be set so that the rate is fair to both the state and the investor and should be a fee that is indexed for inflation and devaluation so as not to make it economically meaningless. To try and come up with a fair rate, Mexico, Mongolia, Indonesia and Madagascar have developed a mechanism which escalates the annual surface fee starting with a lower fee during the early years which grows to a high amount towards and during the later years (Naito et al, 2001).

Common to mineral-hosting nations that boast good administrative capacity is the imposition of minimum expenditure requirements that increase over a period of time. This is characterised with strong monitoring of the work of licence holders. This is an approach that is mostly favoured by investors as the annual fees based on the project's surface area is concerned with investment in value added geological information while the minimum expenditure requirements is simply a sunk costs of the business operation. Naito et al (2001) argued that the annual fee model is objective and very easy to manage while ultimately providing an additional revenue stream to the mineral-hosting nation. Furthermore, he noted that as a policy instrument, it also promotes the serious work on an area or its abandonment. He also offered some insight into the challenges associated with the minimum expenditure requirements as a policy tool. These have been identified as, for example, the fact that there is no single amount that is appropriate for all types of exploration projects and the setting of an appropriate amount for each project requires a qualitative judgement, which makes it difficult to treat all projects equally. Further, the enforcement of the requirement requires government resources, but provides no government revenues (Naito et al, 2001).

#### *5.4.2. Cancellation of procedure*

The cancellation of tenure is a very sensitive issue and a highly contested process. As argued by Otto (1997), the process needs to be clear, transparent and objective and should be explained in full during the application of either an exploration or a mining right. Tsikata (2004) explained that the grounds and processes to be followed in suspending or cancelling a mineral right should be articulated in the mineral legislation and the extent of transgression should be aligned to the area of the law that has been transgressed. He went on to explain the latter by noting that default in the performance of environmental obligations should be associated with the suspension of the environmental license, not the termination of the mineral right. He also argued that the final decision to suspend or cancel should be preceded by a notice to the rights holder and sufficient opportunity to remedy the default.

As discussed above, investors need to be informed of the process and steps to be taken along with punitive measures to be employed by the mineral-hosting nation prior to cancellation or suspending a mineral right. Furthermore, aligning the cancellation process with international best practise is both attractive and comforting to investors. This is so as to allow for arbitration of disputes pertaining to cancellation or planned cancellation to be conducted at an international level, such as utilising the International Centre for the Settlement of Investment Disputes (ICSID) or utilising fair legal processes through the use of a mineral-hosting nation's administrative and judicial tribunals (Naito et al (2001).

It is clear from this chapter that an investor should be assured that the mineral right attained will be sustained for the duration of a project as a mineral project is associated with significant investment prior to receiving any returns. It is therefore necessary for the host nation to develop a mineral regulatory regime that will promote the sustainable exploitation of their mineral resources. However, it is of strategic importance that both the interest of the investor and that of the host

nation are satisfied. This can be achieved by allowing the mineral right holder to develop the mineral resource independently whilst adhering to the prescribed regulatory requirements.

Host nations impose a variety of requirements in the promotion of full, quick exploitation of the mineral resource. However, it is critical for the investor to be assured by the host nation that the holder of the exploration right has the ultimate right to receive a mining right for the respective area of exploration. The exploration right should clearly indicate whether the right offers access to all the minerals in that particular area or is limited. It is less complicated when the exploration right is granted for all minerals. Imposition of minimum fees that increase over time coupled with a strong monitoring of the work of license holder are mostly favoured by the investors, but this requires qualitative judgement as every project is unique.

The procedure for the cancellation of a right should be transparent, objective and be explained in full at the time of applying. Aligning the cancellation process with international best practise is preferred by investors and will go a long way in making the host nation's jurisdiction a preferred destination for investments.

## **6. PARTICIPATION OF NATIONALS**

This chapter investigates the evolution of the mineral industry local content requirements by host nations. The African Mining Vision of 2009's perspective on local content is reviewed. The different tools that can be used to empower locals are also discussed to assess their ability to contribute towards the development of those who reside close to mining operations.

At its inception in the 1960s, mineral-host nations in the developing world regarded local participation in the mining industry as local equity participation in the form of nationalisation of mines. State equity ownership or local businesses offered equity in the domestic industries, largely influenced by nationalistic ideology following the demise of colonialism. The failure of this approach to benefit host nations led to the adoption of a more pragmatic approach. This resulted in the exclusion of direct state participation and highlighted the importance of allowing locals to be offered the opportunity to gain access to equity ownership in the mining projects within its borders. This meant that investors invested in a host nation knowing that a certain percentage of ownership had to be reserved for nationals of the host nation (Barberis, 1998).

The incorporation of host nations' citizens in the mine project life cycle continues to be a prominent feature in modern mineral regulatory regimes and is also being incorporated in MAs (Otto and Cordes, 2002). What is of significance to this section is the African Mining Vision of 2009 (the Vision). The Vision promotes the localisation of the mining industry as an effort to enable the extractive industries to move beyond the promotion of equity ownership and to also focus on its contribution towards the growth and broader development objectives of host nations. Emphasis is made towards the creation of knowledge-based economies and integrated African markets through the employment of linkages that could be down-stream into mineral beneficiation, and manufacturing into mining capital

goods, consumables and services (upstream) or linkages into infrastructure (side stream) (ANC, 2012).

The overall focus of the African Mining Vision 2009 is to promote the integration of the mining industry into the economies of the host nations through the development of important linkages and greater investment into geo-surveying (ANC, 2012). As illustrated by Barberis (1998), integrating a mineral development project into the broader national economy changes the traditional perception of a mine being an isolated project but rather a mine is recognised as a broader economic development project. Heller (2011) stressed the need for host nations to develop the appropriate instruments to coerce the private sector to offer several opportunities in the mining value chain to domestic public and private entities. Moreover this will also establish domestic technical competence that will decrease the dependence on foreign entities while also having direct returns to the national fiscus with a long term strategic focus of developing competent local service providers. This is the process that will also energise and contribute to the much required positive spill-overs from the mining sector to other sectors of the economy (Ndaba, 2010; UNECA, 2004).

Host nations have the important responsibility to utilise the exploitation of their non-renewable mineral resource heritage to develop expertise and experience amongst its population using a variety of tools, which include the following, namely:

- **Quotas:** Through its regulatory function the host nation can coerce the mining industry to comply with a minimum percentage of all employment opportunities, contracts, equity ownership to be designated for local entities or experts.
- **Skills Development Programs:** The mining industry can be mandated with the creation of technical training programs and/or supporting locals to gain access to skills acquisition opportunities.
- **Public Private Sector Research and Development initiatives:** The mining industry partners with the state to develop much required skills to

enable the local training institutions to align their training with industry requirements through the promotion of industry aligned R&D initiatives.

- **Incentives to develop local suppliers:** The mining industry assists in supplier development initiatives to enable locals to be able to meet the procurement requirements of the domestic mining industry.
- **Promoting mineral beneficiation:** The mining industry partners with the state in the development of mining value addition initiatives to create downstream industries and a vibrant manufacturing industry linked to the domestic mining industry (UNECA, 2004).

It is important to state that in this context, the term “locals” signifies those nationals of the host nation who are earmarked to benefit from mineral resource exploitation, regardless of an immediate connection to the actual locality where mineral resource development occurs. There is a need for certain opportunities to be reserved for people residing within the mining jurisdictions in order to strengthen socio-economic and political stability, and local business capabilities (Ndaba, 2010). It is also useful to note that localisation may be associated with some limitations and trade-offs as the utilisation of local labour and local suppliers in the provision of goods and services may lead to an upsurge in project costs or retard project economics. These include additional mineral resource development project costs associated with having to train locals to enable them to be technically competent to be employed at the mine and to also contribute funds to the development of local suppliers. The investment will be of good use to the mineral development project in the long-term as the investor will have a local talent pool to draw skills from to sustain the mining project and can also rely on well capacitated local suppliers for services and products, provided that the local talent and the service providers have not migrated to other mines.

It is clear from this chapter that over the years, host nations have moved away from defining local content as local equity participation by the state (nationalisation of mines of the 1960’s) to locals being offered equity. This has also been recognised in the African Mining Vision of 2009. This vision also emphasises the creation of knowledge based economies, the promotion of

integration of mining industry into economies of host nations through the development of linkages as well as the integration of mineral development projects into the broader national economy. With all the variable tools that host nations have at their disposal, they have a responsibility to use mining in developing expertise and experience amongst their populace.

## 7. ENVIRONMENTAL PROTECTION

This chapter attempts to define the meaning of environmental management pertaining to the mining industry. The chapter goes further to try to understand the different management tools that can be effective in managing the environment. To achieve the latter, the chapter also discusses the different approaches employed by host nations in managing the environment that is affected by mining activities.

Policy to ensure the protection of the environment from mining activities is a highly politicised issue which has gained importance in the twenty-first century (Bell and McGillivray, 2001). UNECA (2004) noted that there is a need to offer environmental protection statutory and constitutional powers. The associated government and governance support emanates from the importance that environmental management was given in the 1992 United Nations Conference on Environment and Development (UNCED). The latter was prompted by growing concerns in finding effective solutions to manage the adverse effects emanating from industrial activities that have contributed to deforestation, global warming, acid rain, Acid Mine Drainage (AMD), the continuous depletion of the ozone layer and the varying degrees of toxic waste (Bell and McGillivray, 2001). The adequate management of the environment has become integrated into a mine's cost structure (Wise, 1995). To understand the issues at hand, one needs to attempt to define the actual meaning of the environment, which is generally understood as our surroundings. However, a specific meaning is that of the physical environment which encompasses space, land, air, wildlife and plants. In actual fact, the environment is understood from an array of perspectives, which include the environmental perspectives, economic perspectives, social and cultural perspectives and the scientific perspectives (Bell and McGillivray, 2001) as discussed below:

- **Environmental perspectives:** This perspective focuses on the need to employ measures to guard the environment at all costs and where possible to extend this protection to safeguarding of human health. The protection of the environment

is an overriding objective regardless of any other perspectives that can be proven by economists and scientists.

- **Economic perspectives:** This perspective is primarily concerned with the employment of costs-benefit analysis to assess the options to pursue economic projects versus the protection of the environment. Economists point to the notion of including stakeholders to assess the associated benefits of a project that has a potential to yield much required economic outcomes such as employment and industrialisation in relation to not disturbing the physical environment.
- **Social and cultural perspectives:** This perspective is largely influenced by the need to establish and respect the socio-cultural relations that people may have with the physical environment; particularly to engage in collective negotiations with those who have social and cultural ties to particular surroundings so as to use their interpretations to all planning pertaining to a certain setting.
- **Scientific perspectives:** This is a natural science approach which promotes resolving environmental concerns through the employment of scientific techniques as an attempt to attain objective and scientifically proven factual information about the physical environment as opposed to relying on subjective environmental, economic, social and cultural judgements.

(Bell and McGillivray, 2001).

All these perspectives have an impact in the manner in which mining activities are executed as well as a direct impact on all aspects of the mining industry. In an attempt to regulate the mining industry in a manner in which it will adhere to all four perspectives (environmental, economic, social and cultural and scientific) mining activities have to comply with mineral-host nations' specific environmental regulatory frameworks which should at least address the following elements:

- Socio Economic Impact Assessment (SEIA).
- Environmental Management Systems and Programmes (EMSP).
- Environmental Impact Assessment (EIAs).

- Environmental Monitoring and Evaluation Programmes (EMEP).
- Mine Site Rehabilitation (MSR).

(UNECA, 2004)

In the mining industry, there are seven topical areas that need to be considered relating to the potential that the industry has to damage the immediate physical environment. These are (i) the management of large-volumes of waste, (ii) planning and management of mine closures, (iii) dealing with environmental aspects of mining legacies, (iv) the actual process of managing the environment, (v) the intensity of energy use in mining activities, (vi) employing adequate mechanisms to effectively manage metals in the physical environment, and (vii) having a clear understanding of the actual mining activity impacts to biological diversity (MMSD, 2002).

The EIA is a management tool which has proven to be effective in managing the environment in the mining industry largely because its development and implementation go beyond the management of the environment, but also considers and incorporates the socio-economic factors around mining operations. However, there have been observed challenges with its implementation as a result of limited knowledge in obtaining baseline hydrological information, evaluating archaeological sites, forecasting for acid drainage or detecting important fauna and flora. The adequate use of an EIA relies on the existence of an Environmental Management System (EMS) which should incorporate the management of the environment into a mining company's overall daily operational activities, culture, processes and procedures. This approach will offer a mining company a well-constructed system to be applied, monitored and evaluated throughout the life cycle of a mineral development project (MMSD, 2002). The EMS should be categorised into the following stages:

- Total organizational commitment.
- Environmental policy and procedure.
- Socio-economic impact assessment.
- Environmental impact assessment.

- Community engagement.
- Setting the correct intentions and targets.
- Developing an appropriate environmental management plan.
- Recording all work and developing an easy to use environmental manual.
- Developing appropriate working control and emergency procedures.
- Training the organisation about the company's EMS.
- Developing and implementing effective emissions and performance monitoring tools.
- Continuously conducting environmental and compliance audits, and reviews.

(MMSD, 2002).

Generally, two approaches are employed by host nations in the management of the environment within the mining sector. The sectorial approach is associated with offering the mining ministry of a host nation the authority of granting environmental licences, as well as the monitoring and evaluation of compliance with the EIA. The other approach is the central approach, where environmental management is centralised to the environmental ministry with environmental legislation and its enforcement being applied commonly across all sectors of the economy (Naito et al, 2001).

Table 3: Environmental Statutes Affecting Mineral Operations in Selected Host Nations from Latin America, Asia and Africa Table 3 below clearly indicates that environmental law has become a political discipline in Latin America, Asia and Africa, as its enforcement has become entangled with a political office propelled by politically charged disputes. Experience to date indicates the following future policy implications, namely:

- Host nations are moving away from the reactive notion in solving environmental problems but rather developing the appropriate legislation and standards that mining companies need to comply with in relation to environmental protection.

- Mining companies are expected to continue developing innovative means to address mining-related environmental impacts and attempts to adopt more environmentally friendly production practises.
- Environmental protection should be part and parcel of a mine’s daily operations, with adequate planning to rehabilitate the mine site to an acceptable state after mining ceases.
- The private sector is already showing various means of collaborating with other public entities and shares resources and expertise in the field of environmental management.

Due to growing concern in finding effective solutions in managing the adverse effects on the environment emanating from mining and other industries, the EIA is a management tool that has proven to be effective in managing the environment in the mining sector. The EIA relies on the existence of an EMS which should be incorporated in the daily operational activities of the mine. In managing the environment, host nations use either the sectorial or the central approach depending on the general approach the nation has towards environmental management. There does not seem to be a defined method of deciding on either methodology by host nations. (Bell and McGillivray, 2001).

**Table 3: Environmental Statutes Affecting Mineral Operations in Selected Host Nations from Latin America, Asia and Africa**

(Naito.et al (2001).

<b>Region and Host Nation</b>	<b>Environmental law</b>	<b>Environmental administration for mining</b>	<b>Inspection and monitoring agency</b>
<b>Latin America</b>			
<b>Chile</b>	Decree 185 of Ministry of Mining (air pollution), Decree 4 (1992) of Ministry of Health (air pollution in Metropolitan region);	National Commission for the Environment (CONAMA)	Ministry of Mining, Ministry of Health

	Law Number 19 300 (frame work for environmental legislation)		
<b>Brazil</b>	National System for the Environment, Law No. 6.938 of August 31, 1981, Law 9.605 of February 12, 1996	Ministry of Environment, National Council for the Environment (CONAMA) – Federal, State and Regional Environmental Agencies	Ministry of Mines and Energy
<b>Asia</b>			
<b>China</b>	Environmental Protection Law; Law on the Prevention and Mitigation of Water Pollution; Law on the Prevention and Mitigation of Air Pollution; Regulations on the Control of Noise Pollution; Regulations on Land Reclamation; Interim Measures on the Collection of Fee for Excessive Release of Pollutants; Measures on Environmental Protection Management on Capital Construction Projects	Ministry of Environment, Ministry of Land and Resources	Ministry of Land and Resources
<b>India</b>	Environment (Protection) Act 1986 and amendment 1991	Ministry of Environment and Forest	Ministry of Environment and Forest
<b>Indonesia</b>	Law No. 23 of 1997 concerning Environmental Management	Directorate General of Mines	Directorate General of Mines
<b>Africa</b>			
<b>Botswana</b>	Mines and Minerals	Mines Department,	Air Pollution

	Act, 1999 (May 21, 1999)	Ministry of Minerals, Energy and Water Affairs	Control Division, Mines Department, Ministry of Minerals, Energy and Water Affairs
<b>Ghana</b>	Mining and Environmental Guidelines 1994	Environmental Protection Agency	Environmental Protection Agency

## **8. FISCAL POLICY AND MINERAL TAXATION**

This chapter discusses fiscal policy and taxation in relation to the mining industry. The different types of mineral taxes are investigated. The chapter aims to understand a balanced and fair approach towards mineral taxation, an approach which will enable the state to collect sufficient revenue while also allowing investors to operate on profitable terms.

The role of a host nation's fiscal policy is primarily centred on the process of using the nation state's budget to guide its economy. Fiscal policy should clearly articulate the manner in which state revenue collection, in the form of taxes and its spending (public expenditure), should be conducted. The actual mechanisms to be employed in altering government's taxation rates and expenditure to directly impact aggregate demand and the broader domestic economy should be considered. These have an impact on the following macroeconomic variables in a national economy:

- The sharing of income.
- Aggregate demand and the rate of economic growth.
- The arrangement of the distribution of resources by the public sector in relation to the private sector (Van Zyl et al 2009)

Mineral-host nations' fiscal policy should illustrate how the mineral resource heritage will be treated to enable it to yield positive economic returns or rent for the host nation. Mineral resource rent can be described as the actual value of a mineral resource deposit, excluding all the costs of production and comprising of the minimum return to capital, needed to realise an investment return. Mineral resource rent is influenced by the quality of the ore (ore grade), prices at a specific point in time as a result of the fluctuating nature of mineral resource prices, and the actual operational costs at the time.

To achieve mineral tax neutrality – an ideal tax system - it is advisable that mineral taxation should be employed in a manner that will ensure it does not modify pre-tax investment decisions. This will require taxation to be imposed at the mineral rent availability stage excluding the taxation of expenditure associated with production (capital and labour) and operational inputs such as water, energy and explosives. In practise, mineral resource taxation relies on unconfirmed payments from the mining houses, which are traditionally taxes imposed on profits or actual cash flow (Daniel, 2002).

The mineral taxation system designed must adhere to both the operational requirements of the mining industry and the expected benefits by the host nation, as the tax policy will have an impact on both the actual speed of development of a mineral resource and the host nation's perception of the mineral development project. In order to merge interests that may vary at certain instances, Daniel (2002) proposed adherence to the following aspects in the development of a mineral taxation system:

- Making adequate incentives for enterprises to explore and invest; and
- Acquiring a rational share of returns over time for the host nation.

In meeting these aims, these are the following supportive guiding principles:

- The fiscal policy must be in line with global standards and be crafted similar to mineral-hosting nations with comparable geological heritage, political and economic conditions.
- The host nation is in a position to increase taxes if they do not impact negatively on its investment climate

(Daniel, 2002).

The actual design of the system should bring about an equitable balance between the following reflections:

1. Decrease risk to the private sector in that rent should be taxed only when it is realised and in relation to the projection of revenues.
2. Explore means to propose and develop adequate fiscal stability agreements where applicable.

(Daniel, 2002).

The distribution of mineral resource rents has become highly politicised and contested with heated disputes centred on who should be getting a bigger share of the revenue between the mining industry stakeholders. These include the employees, communities residing next to mining operations, and central and local governments. The private sector has to act strategically in balancing the requirements of all these stakeholders as when the balance is not managed appropriately, the end result may be riots by community members or even the central government imposing harsh penalties on the mineral development project (Ernst and Young, 2013). It is the role of a host nation's mineral regulatory regime to illustrate the types of taxes to be imposed on the mining industry along with articulating the various incentives and deductions associated with a host nation's taxation regime in order to meet the varying interests from mining industry stakeholders. As advocated by Otto & Cordes (2002) the three main categories of taxes that are levied on mineral enterprises are profit-based taxes, output-based taxes and input-based taxes. These are discussed below.

- **Profit-based taxation:** Relates to the inclusion of dividend taxes, income taxes and additional taxes levied on profit.
- **Output-based taxation:** This tax is also known as a royalty, which is primarily aligned to the sales value of a mine's production, for example a certain type of ad-valorem taxation. Host nations utilise them as they are dependent on a mine's actual production, which in some quarters is argued to be forecasted easily, and also guaranteeing uninterrupted flows of revenue throughout a mine's life cycle. Furthermore, host nations prefer royalties as they are relatively much easier to manage, to collect, to calculate and to monitor and evaluate over a specific time period. However, it has also been noted that they promote efficiency and neutrality in mineral development projects while also having an impact on the actual rates and levels of ore recovery, which negatively impacts project revenues. This increases commercial risks and makes marginal deposits unattractive.

- **Input-based taxation:** These taxes are primarily associated with taxes imposed on mining inputs required for the execution of a mineral development project. These taxes include withholding taxes - or what is termed as sales transaction - and import duties are levied on capital equipment and also imposed on labour and remuneration related tax payments. These taxes have a direct impact on production costs especially during the early years of a mining project. This phase is associated with the importation of all the required capital equipment therefore having a negative impact on the internal rate of return calculations.

A nation's fiscal policy is responsible for demonstrating the manner in which the state will collect revenue, the types of taxes used, and how state funds will be spent. In relation to taxation the state also has specific sectoral taxation methods. The mining sector mainly employs three types of taxes; these are profit-based taxes, output-based taxes and input-based taxes. It is critical for the host nation's mineral regulatory regime to articulate the taxation tools utilised within its domestic mining sector and the various incentives available, which should be globally competitive. Furthermore, the tax regime in place must adhere to operational requirements of the mining industry while simultaneously fulfilling the expectations of the mining industry stakeholders.

## **9. SOUTH AFRICA'S MINERAL REGULATORY REGIME**

This chapter discusses South Africa's current mineral regulatory regime. It defines the role of the state in the South African mineral industry, and discusses the manner in which the South African government issues mineral rights, and the security of tenure in the South African mineral industry. It also assesses how the mineral regulatory regime enables South African nationals to participate in the domestic mining industry. The chapter further illustrates how the law compels the mining industry to employ sustainable environmental management practises. The chapter ends by unpacking South Africa's fiscal and mineral taxation regime.

The political changes that were ushered in South Africa in 1994 made it necessary to prepare the mining industry for the challenges which continued to face all South Africans as the country approached the twenty-first century. In this regard, in September 1995, the Mineral Policy Process Steering Committee (the Steering Committee) was formed, consisting of representatives from both the executive and legislative branches of Government, as well as business and organised labour. The Steering Committee conducted an extensive consultative process to canvass stakeholder opinion for the preparation of a new minerals and mining policy for South Africa. The product thereof became the fore runner to the Mineral and Petroleum Resources Development Act (MPRDA) Act No. 28, 2002.

This Act considers the mineral resources of South Africa as the common heritage of all the people of South Africa, with the State being the custodian thereof for the benefit of all South Africans. Mining in South Africa is therefore regulated mainly by only one piece of legislation, the MPRDA as amended by Act No 49, 2008. Both statute and common law regulate the South African mineral industry, with the MPRDA being the main regulatory framework for the domestic mining industry. It is well documented in the MPRDA that in instances where there is conflict between common law and the MPRDA, the latter will succeed. It is also worth mentioning that the MPRDA does not

abolish common law as interpreting the MPRDA requires the consideration of the common law. Under the MPRDA, the state is the custodian of South Africa's mineral resources and the regulation of the industry is conducted primarily from the national office, located in Pretoria, and the respective regional offices of the Department of Mineral Resources (DMR). Other pieces of legislation, such as the Precious Metals Act, 2005 and the Diamond Act, 1986 only regulate the mining products rather than the act of mining per se. The major issues of the status of the mineral sector of South Africa are therefore defined by the MPRDA and are discussed below.

### **9.1. Defining the Role of the State**

As the custodian of the nation's mineral resources, the State, acting through the Minister of Mineral Resources (the Minister) may grant, issue, refuse, control, administer, and manage any reconnaissance permit, exploration right and production right (MPRDA, 2002).

Currently the State does not fully participate in the exploitation of the mineral resources of the country further and no other agreements, in this regard are applicable in South Africa. This, in essence, stifles participation of new entrants into the sector since a "one size fits all" principle is engendered in the South African regulatory regime. It is worth noting that the South African government has investments in a number of mining ventures, which includes an equity investment in Alexcor Diamond Mining Company, with equity invested through the Industrial Development Corporation (IDC) and the Public Investment Corporation (PIC). Other state investments include the CEF Group of Companies which is state owned. However, there are proposals for state intervention in the form of a discussion paper, the State Intervention in the Minerals Sector (SIMS report), (ANC, 2012) under discussion in the ruling party, the African National Congress (ANC). The SIMS Report proposes a different scenario to the current regime which might influence the current status quo. Such proposals are not included in this research paper as they are not government policy as yet nor are issues raised in the

Mineral and Petroleum Resources Amendment Bill (2013) included as they are not law as yet.

## **9.2. South Africa's mineral regulatory function**

As per the MPRDA, the Minister has the authority to issue, grant, refuse, and administer all rights. The acquiring of rights is on a first come, first served basis which dictates that an application for prospecting right, mining right or mining permit has to be granted if there is no other application for the same right, for the matching mineral and territory. The Minister is able to invite and to illustrate the procedure for the allocation of these rights. Private entities are empowered to obtain a permit to conduct various activities which include reconnaissance, practical and technical cooperation, mining and retention. Private entities have access to acquire prospecting, exploration and mining rights (MPRDA, 2002).

A mining right should be granted exclusively to the holders of a prospecting or retention right. Renewal of prospecting, exploration and mining right is exclusively guaranteed to holders of those rights. However, the legislated renewal process needs to be followed to enable the Minister to renew those rights. A limitation is imposed on a reconnaissance permit in that the holder of such a permit is not granted an exclusive right to be offered a prospecting or a mining right. Access to mineral resources in South Africa, therefore, is through permits and rights. The main principles underpinning the qualification criteria for an applicant to acquire such permits or rights are somewhat identical, namely, before any license or right is granted the applicant must:

- Indicate that he or she has access to financial resources and has the technical ability to conduct the proposed work.
- Indicate that the estimated expenditure is compatible with the proposed operations in relation to work to be done.

- Indicate the ability to comply with the relevant provisions of the Mine Health and Safety Act (MHSA), 1996.
- Consult with interested and affected parties.
- Show consideration to the environment and
- Show, in the case of a mining right, how he or she will substantially and meaningfully expand opportunities for historically disadvantaged persons to enter the minerals sector, promote employment and advance the social and economic welfare of all South Africans and the Mining Charter as contemplated in Section 100 of the MPRDA.

(MPRDA, 2002)

Further to this, any person who intends to beneficiate any mineral mined in the Republic outside the Republic may only do so after a written notice and in consultation with the Minister (MPRDA, 2002).

Any person who wishes to apply must lodge the application at the office of the Regional Manager in whose region the land is situated together with the prescribed non-refundable application fee. On acceptance of the application, the Regional Manager must forward the application to the Minister for consideration who will either grant or refuse it. On refusal, the Minister must forward reasons to the applicant in writing within a prescribed period (MPRDA, 2002).

Different minerals have several restrictions on the time offered for the exploitation of the mineral commodities, coupled with additional limitations on the number of renewals that can be granted. Additional obligations are conferred on the rights holder and these include obligations to the labour force, mine closure rehabilitation and communities adjacent to the mining operations. The most clearly legislated obligation is the notion around the right to enforce optimal exploitation of the mineral resources of the country to coerce those who are granted rights to use them within the time offered for a particular right. The optimal exploitation is reliant on the development of mining,

prospecting, exploration and/or a production work programme that needs to be developed and adhered to throughout the life cycle of a particular right (MPRDA, 2002)

Aside from the time periods agreed upon and which need to be adhered to by holders of particular rights, access to land needs to be carefully negotiated with the landowners and all lawful occupiers of that land, with only the entity that has been granted the mining right having the exclusive right to exploit mineral resources in that particular territory. The ceding, transferring, letting, alienating, disposing or holding by mortgage of a mining permit, mining, prospecting, exploration and production right requires permission from the Minister, which will only be granted based on a valid reason. The entity receiving the right is required to prove that they have the capacity to meet all the legislated obligations associated with holding that particular right. Failure to adhere to the MPRDA constitutes non-compliance, which is associated with the relevant penalty as outlined in the MPRDA. Some other areas of compliance with regards to holding a particular right include:

- An entity in possession of a prospecting right is granted the exclusive right to convert a legally valid prospecting right to a mining right.
- In applying for a mining right the applicant needs to prove that they have the required capacity to engage in a mineral development project aligned to their Mining Work Program (MWP), Environmental Management Plan (EMP) and Social and Labour Plan (SLP) as well as the capacity to meet the legislated requirements of the Mine Health and Safety Act 29 of 1996.

(MPRDA, 2002)

Theoretically, there are no limitations on a foreign entity being granted mining rights. However, the holder of a mining right has to adhere to the Black Economic Empowerment (BEE) requirements of the country, which compel the holder of the right to set aside 26% of equity for Historically Disadvantaged South Africans (HDSAs). Furthermore, the holder of the right does not have an exclusive real right to the surface under which the minerals are found. It is therefore the sole responsibility of the mining

rights holder to engage in negotiations with the landowner and to strike a negotiated settlement. An agreement to be given access to the land by the landowner needs to be concluded before the commencement of prospecting operations. Unresolved disputes usually lead to compensation being concluded through arbitration or a court relevant to the issue being contested (MPRDA, 2002).

### **9.3. Security of Tenure**

Since all mineral rights are vested in the state, the state guarantees security of tenure for a prescribed period under certain conditions. Any permit or right granted may not be ceded or disposed of without the written consent of the Minister, except in the case of change of a controlling interest in listed companies. All permits and rights can be renewed as long as the application states the reasons, period for which the renewal is required, a report reflecting the previous progress achieved or results, the requirements of the approved environmental management programme and the rehabilitation to be completed with the estimated cost thereof (MPRDA, 2002).

Under the MPRDA, no restrictions are placed on the ability to register a mortgage over the prospecting or mining right area. However, a right holder cannot register any security over a prospecting or mining right that is currently in the registration process at the Mineral and Petroleum Resources Titles Registration Office. The written consent of the Minister is required for the alienation, subletting, ceding, transferring, disposing or transferring of a prospecting or mining right except when the controlling interests in a listed company changes. Ministerial consent is not required in the process of using prospecting or mineral rights as collateral to access a loan or when used to guarantee the funding or financing of a prospecting or mineral development project by a bank. This is covered and described in the Bank Act 94 of 1990. All uses of the mortgage of any right need to be lodged with the relevant registration at the Mineral and Petroleum Resources Titles Registration Office (MPRDA, 2002).

#### **9.4. Participation of Nationals**

The Social and Labour Plan (SLP) is a strategy aligned to the principles of the MPRDA. To guarantee real transformation, the MPRDA requires the submission of the SLP as a pre-requisite for the granting of mining or production rights. The SLP requires applicants for mining and production rights to develop and implement comprehensive Human Resources Development Programmes, Mine Community Development Plan, Housing and Living Conditions Plan, Employment Equity Plan, and Downscaling and Retrenchment Management Plan (MPRDA, 2002)

The programmes enshrined in the SLP are developed to promote employment and advancement of the social and economic welfare of all South Africans, whilst ensuring economic growth and socio economic development. The management of downscaling and/or closure is aimed at minimising the impact of commodity cyclical volatility, economic turbulence and physical depletion of the mineral or production resources on individuals, regions and local economies (MPRDA, 2002).

The Broad-Based Socio-Economic Empowerment Charter (Mining Charter) has been developed with the primary purpose of promoting unbiased access to South Africa's mineral assets to all South Africans and to increase opportunities for HDSAs in the South African mining industry. The Mining Charter has been developed to be utilised by all those who affect and are affected by the mining industry, with the following elements being assessed by the regulator:

- **Ownership Element:** HDSAs need to be offered the opportunity to practise effective ownership to enable the racial and gender composition which characterises the ownership of the mining industry to be transformed to reflect the demographics of the country.
- **Procurement and Enterprise Development:** The mining industry needs to open procurement opportunities to HDSAs entities by procuring at least 40% of capital goods from BEE companies by 2014, as well as ensure that 70% of

services and 50% consumables are procured from BEE companies. Multi-National Companies (MNC) who sell capital goods to the South African mining industry need to pay 0.5% of annual income made from local mining companies into a socio-economic development fund to be spent on community development.

- **Beneficiation:** Mining companies need to beneficiate minerals produced in South Africa and contribute to the industrialisation of the country in line with section 26 of the MPRDA. Mining companies can offset the actual value of beneficiation achieved against the portion of its HDSA ownership obligations.
- **Employment Equity:** All mining companies need to work towards achieving a minimum of 40% HDSA demographic representation by 2014 at all management levels, which include executive management (Board of Directors), senior management (EXCO), core and critical skills, middle management and junior management.
- **Human Resource Development (HRD):** Mining companies need to invest a percentage of their annual payroll towards skills development programs, excluding the compulsory skills levy. They should also offer support to South African based research and development activities aligned to innovation in exploration, mining, processing, technology efficiency, beneficiation, and environmental management and rehabilitation.
- **Mine Community Development:** Mining companies need to maintain their social license to operate by engaging in socio economic impact assessments of the areas in which their mines are planned and develop programs to mitigate the negative socio-economic and environmental impact that may emanate from their operations. Mining companies need to collaborate with the local municipalities where their operations occur and to choose Local Economic Development (LED) projects illustrated in municipalities' Integrated Development Plans (IDPs). Their contribution to community development projects should be comparable to the value of their mining project.

- **Housing and Living Conditions:** Mining companies need to ensure that their employees live in decent housing and living places, with particular emphasis on the conversion or upgrading of single sex hostels into family units by 2014. Mining companies should also ensure that there is only one person in every room in the mine's hostel accommodation and expedite the provision of home ownership opportunities for mine employees, working with organised labour.
- **Sustainable Development and Growth of the Mining Industry:** The stakeholders of the mining industry have committed to steering the domestic mining industry towards a sustainable growth and development trajectory by working together to ensure better management of the environment, improve the mining industry's health and safety performance and to improve skills development within the domestic mining industry.

#### **9.5. Environmental Protection**

The MPRDA has, through section 37, incorporated the principles as set out in the National Environmental Management Act (NEMA) to ensure that all phases, which include prospecting and mining, are conducted in accordance with generally accepted principles of Sustainable Development. This has been done by integrating social, economic and environmental factors into the planning and implementation phases, so as to ensure exploitation of mineral resources serves present and future generations. To achieve this, the applicant must assess and evaluate the impact that the activity will have on the environment and submit an environmental impact assessment report and an environmental management plan/programme (EMP). An EMP is defined as a plan to manage and rehabilitate environmental impacts associated with prospecting or mining. Any person mining must comply with an approved Environmental Management Programme (EMPR). The EMPR is prepared following an environmental impact assessment as prescribed in terms of the MPRDA and its Regulations. Currently, decisions to approve (or refuse) EMPs or EMPRs are taken by the DMR. As a result, there is a dual system for governing environmental impacts – one for mining and one for all other types of development activities that are regulated by the Department of

Environmental Affairs (DoE), which may need an environmental authorization in terms of NEMA regulations.

In 2008, an agreement was concluded between the Minister of Environmental Affairs and Tourism and the Minister of Minerals and Energy regarding the transfer of the environmental authorisations (EIA) function in respect of mining activities under the MPRDA to the Department of Environmental Affairs and provincial environment departments under the National Environmental Management Act, 1998 (NEMA). According to this agreement, both Departments would effect the necessary legislative changes to the MPRDA and NEMA respectively and that the transfer of functions would then be effective 18 months from the date on which the last Amendment Act came into effect. The National Environmental Management Amendment Act 62 of 2008 was promulgated on 5 January 2009 and came into effect on 1 May 2009, making all the necessary changes to NEMA. The Minerals and Petroleum Resource Development Amendment Act 49 of 2008 was promulgated on 19 April 2009 (Department of Environmental Affairs Annual Report, 2012/13). Environmental management is governed by various legislations, and an applicant for a prospecting or mining authorization must take into consideration the following legislations:

#### *9.5.1. The Constitution of the Republic of South Africa*

Environmental management and the protection of natural resources are encompassed under Section 24 of Chapter 2 of the Bill of Rights. Any planned development must prove that it takes this chapter into consideration. In terms of the constitution, everyone has a right to an environment that is not harmful to their health or well-being and to have the environment protected for the benefit of present and future generations through legislative and other measures.

#### *9.5.2. White Paper on Environmental Management*

The white paper on environmental policy is the government's policy governing environmental management with an aim to giving effect to constitutional rights. The

vision is for a society that lives in harmony with the environment, considering that there are continuous interactions between society and the environment. With regard to economic development, the policy states that there should always be a win-win situation so that the promotion of economic growth does not downgrade environmental gains. This is achieved through effective decision-making processes which focus on the sustainable use of natural resources. The focus is on sustainable development based on integrated environmental management which addresses:

- People's quality of life;
- The integration of economic development, social justice and environmental sustainability;
- More efficient use of energy resources;
- Sustainable use of social, cultural and natural resources; and
- Public participation in environmental governance.

#### *9.5.3. The National Environmental Management Act (Act 107 of 1998)*

Sustainable development is an important aspect that is emphasised within this Act. The principles of NEMA (Chapter 1 (2) (1) (b)) serve as the framework within which environmental management and implementation must be formulated and developed to be socially, economically and ecologically sustainable. In order for sustainable development to be reached, the integration of social, economic and environmental factors in the planning, implementation and evaluation of decisions is required. It is argued that policy and legislation are fragmented between the spheres of government (CSIR Research Agenda, 2003: 4). However, NEMA states that spheres of government must consult and support one another in order for environmental management to be functional elements of legislation. This will enable the reduction of problems associated with the lack of integration of the environment in policy making.

#### *9.5.4. Environment Conservation Act (Act 73 of 1989) (ECA)*

The ECA considers land development issues and sets frameworks by which the environment can be incorporated into planning policies as areas that need to be protected. Sections 21, 22 and 26 within this Act make provision for environmental assessment and objectives. The objectives are to:

- Ensure that environmental effects of activities are taken into consideration before decisions are taken;
- Promote sustainable development, thus achieving and maintaining an environment that is not harmful to people's health and well-being; and
- Ensure that the identified activities which are undertaken do not have a substantial detrimental effect on the environment.

#### 9.5.5. *The National Water Act (Act 36 of 1998) (NWA)*

*The “National Water Act, 36 of 1998 (NWA) requires almost all water uses (abstraction, storage, waste disposal, discharge, removal of underground water and alteration to water courses) above certain thresholds to be licensed and registered. Water uses for which licensing is required but which are not licensed and registered are illegal and may result in a fine or a directive to cease the specific operation or activity, decommission it and rehabilitate the area. In practice, mines will be called upon to submit an integrated water use licence application together with an integrated water and waste management plan to the Department of Water Affairs (DWA) for authorisation. Mines are also required to comply with the Regulations on Use of Water for Mining and Related Activities Aimed at the Protection of Water Resources promulgated under the NWA.” (Government Gazette No 191982, August 1998)*

#### 9.5.6. *National Environmental Management: Waste Act, 59 of 2008*

*“Waste management activities are regulated by the National Environmental Management: Waste Act, 59 of 2008 (Waste Act). What constitutes a waste management activity is determined by a list of activities published in terms of the Waste Act. The Waste Act specifically excludes from its scope residue deposits and stockpiles*

*as defined in the MPRDA from its application and therefore the Waste Act's applicability to prospecting and mining activities is limited. Residue deposits and stockpiles will be detailed in the relevant EMPR and these are otherwise strictly regulated by the MPRDA and its Regulations. General waste generated at a prospecting or mine site must be treated and disposed of in accordance with the Waste Act. Therefore, a holder of a prospecting or mining right may be required to comply with the general duties imposed upon holders of waste by the Waste Act. These include obligations to avoid the generation of waste and where it cannot be avoided, to minimise the toxicity and amount of waste generated; reduce, re-use, recycle and recover waste; and to take all reasonable measures to ensure that waste is treated and disposed of in an environmentally sound manner and manage the waste in a manner which does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts.” (Government Gazette No. 32000, March 2009)*

#### *9.5.7. National Environmental Management: Air Quality Act, 39 of 2004, (AQA)*

The national law that currently governs air quality is the National Environmental Management: Air Quality Act, 39 of 2004 (AQA). The main objective of the Act is to protect, restore and enhance the air quality in South Africa, and also to reduce risks to human health and prevent the degradation of air quality. National ambient air quality standards have been established to act as a benchmark for measurement. AQA requires that certain activities which impact on air quality be licensed. These activities are contained in a list published in terms of AQA. AQA also contains various air quality management measures including the declaration of priority areas and other measures to control dust, noise and offensive odours. The Act describes various regulatory tools that should be developed to ensure the implementation and enforcement of air quality management plans. These include:

- *Priority Areas*, which are air pollution ‘hot spots’;
- *Listed Activities*, which are ‘problem’ processes that require an Atmospheric Emission License;

- *Controlled Emitters*, which includes the setting of emission standards for ‘classes’ of emitters, such as motor vehicles, incinerators;
- *Control of Noise; and*
- *Control of Odours.*

#### 9.5.8. *The National Heritage Resources Act, 25 of 1999 (NHRA)*

In terms of section 39 (3) (b) (iii) of the MPRDA, there must be an assessment of impacts that mining related activities may have on national heritage resources. The National Heritage Resources Act, 25 of 1999 (NHRA) aims to give effect to the constitutional protection afforded to heritage resources, which include movable and immovable objects of a historical, archaeological, paleontological “*or astronomical interest. Certain graves are afforded special protection and, amongst other things, it is an offence for any person to destroy damage, alter, exhume or remove, from its original position, any graves that are older than 60 years and situated outside of a formal cemetery administered by a local authority without a permit. In addition, as indicated above, certain linear developments (such as the construction of pipelines) require compliance with section 38 of the NHRA which stipulates the minimum requirements for a heritage impact assessment (HIA). Importantly, if an EIA is required under any legislation, including mining legislation, then the results of any HIA must be submitted to the decision maker in the EIA process, who must take into account the comments of the Heritage Resources Agency when determining its application.*” (Government Gazette No. 19974, 1999)

#### 9.5.9. *National Environmental Management: Protected Areas Act, 57 of 2003*

Section 48(1) of the National Environmental Management: Protected Areas Act, 57 of 2003 (NEMPAA) provides that "*despite other legislation, no person may conduct commercial prospecting or mining activities in:*

- *a special nature reserve, national park or nature reserve.*

- *in a protected environment without the written permission of the Minister and the Cabinet member responsible for minerals and energy affairs or in a protected area, referred to in section 9(b), (c) or (d).”*

## 9.6. Fiscal Policy

South Africa has a fiscal framework that is premised on a sustainable counter-cyclical methodology towards administering revenue and expenditure. The government's focus is on the maintenance of social and economic programs in a manner that is not too costly for the state. Taxation primarily comprises of varying levels of payment to government, which includes the national government that uses the South African Revenue Services (SARS) to collect taxes or local government. Revenues collected by the national government emanate from income tax, value added tax (VAT), fuel duty and corporate tax, while revenues collected by the local government emanates from various grants from the national government and various rates collected by municipalities. Mining taxable income is defined in relation to the general taxation principles with applicable changes specific to the minerals sector. The taxation instruments used are illustrated below:

- **Royalties:** In 2008, South Africa introduced a new royalty system which forces every person that wins or recovers a mineral resource from within the Republic of South Africa to pay a royalty for the benefit of the National Revenue Fund in respect of the transfer of the mineral resource. (Government Gazette No. 31635; 2008). The royalty payable is determined by multiplying the gross sales of the extractor in respect of that mineral resource during the year of assessment by the percentage determined in accordance with a formula that allows for less royalty payment for a refined product. The Mineral and Petroleum Resources Royalty Act, which governs the royalty regime, further defines the refined and unrefined conditions of the major mineral resources mined in South Africa. Of interest is that small businesses are exempted from paying royalties where, amongst others,

the extractor's expected imposed royalty does not exceed R100 000 (Government Gazette No. 31635, 2008). The rate employed changes based on the Earnings Before Interest and Taxation (EBIT) and actual gross sales. The maximum rate for refined minerals is 5% and a rate of 7% is employed on unrefined minerals.

- **Corporate Income Tax:** 28% is the standard tax rate with a 10% Secondary Tax on Companies (STC) charged for mining companies.
- **Withholding Taxes (WHT):** Plans are being developed to create a WHT at a rate of 10% which may replace the STC.
- **Capex Expensing:** Mining companies can be given an upfront deduction on all the capital expenditure undertaken. The deduction is only implemented when the mining company has reached production stage which is also subjected to adequate mining taxable income. If the company carries on trading they can carry forward all assessed losses.

With respect to gold mining companies, a specific taxation formula is used which enables companies that are earning taxable income derived exclusively from gold mining activities to be taxed on a gold formula basis., The formula which determines the tax rate is illustrated and explained below:

- *“The gold industry tax formula:  $Y = a - (ab/x)$ ,*
  - *Y= the tax rate to be determined.*
  - *a= the marginal tax rate.*
  - *b= the portion of tax-free revenue and*
  - *x= the ratio of taxable income total income (these are the amounts obtained from gold mining before any excess mining capital regained before the set off any considered loss or deduction which associated with gold mining from the mine concerned.” (van Blerck, 1990).*

There are also a number of ring fencing provisions which apply exclusively to mining, for example, prospecting expenditure incurred outside a mining lease area may be claimable against mining income.

Withstanding the above, there could be fine tuning of policy as the Minister of Finance has set up a commission headed by Judge Dennis Davis that is currently evaluating the current tax system against the internationally accepted standards, principles and practices. The committee is advisory in nature and is not expected to overhaul the current tax regime but will ensure that South Africa's tax regime keeps up with the ever changing tax environment.

In conclusion of this section the different themes are concluded below:

- **The role of the State**

The State is the custodian of mineral rights and the relevant Minister administers policy implementation. Currently the State does not participate in full in the exploitation of the mineral resources of the country. Further, no other agreements, in this regard are applicable in South Africa. The South African government has investments in a number of mining ventures which include an equity investment in Alexcor Diamond Mining Company and equity invested through the IDC and the PIC. Other state investments include the CEF Group of Companies which is state owned. However, there are recent proposals in the form of a discussion paper, the SIMS Report 2012, under continuous discussions in the ANC. The SIMS Report might influence the current status quo. Such proposals are not included in this research paper as they are not government policy as yet.

Both statute and common law regulate the South African mineral industry with the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA) being the main regulatory framework for the domestic mining industry. In instances where there

is conflict between common law and the MPRDA, the latter will prevail. Moreover the MPRDA does not abolish common law as interpreting the MPRDA requires the consideration of the common law. Under the MPRDA the regulation of the industry is conducted primarily from the national office located in Pretoria and the respective regional offices of the Department of Mineral Resources (DMR).

- **Access to Mineral Resources**

The Minister has the authority to issue, grant, refuse and administer all these rights. The acquiring of these rights is on a first come, first served basis which dictates that an application for prospecting right, mining right or mining permit has to be granted if there is no other application for the same right, for the matching mineral and territory. This is coupled with the Minister being able to illustrate the procedure for the allocation of these rights. Private entities are empowered to obtain a permit to conduct various activities which include reconnaissance, practical and technical cooperation, mining and retention. Private entities have access to acquire prospecting, exploration and mining rights. A mining right should be granted exclusively to the holders of a prospecting or retention right. Renewal of prospecting, exploration and mining right is exclusively guaranteed to holders of those rights. A limitation is imposed on a reconnaissance permit in that the holder of such a permit is not granted an exclusive right to be offered a prospecting or a mining right and cannot therefore be automatically engaged in prospecting or mining activities.

Further, “any person who intends to beneficiate any mineral mined in the Republic outside the Republic may only do so after written notice and in consultation with the Minister.” (MPRDA, 2002)

In applying for a mining right the applicant needs to prove that they have the required capacity to engage in a mineral development project aligned to their Mining Work Program (MWP), Environmental Management Plan (EMP), Social and Labour Plan

(SLP) and the capacity to meet the legislated requirements of the Mine Health and Safety Act 29 of 1996.

Theoretically there are no limitations on a foreign entity being granted mining rights, however, any holder of a mining right has to adhere to the Broad Based Socio-Economic Empowerment Charter (Mining Charter) requirements of the country which compels the holder of the right to set aside 26% of equity to Historically Disadvantaged South Africans (HDSA's). Furthermore the holder of the right does not have an exclusive real right on the surface in which the minerals are found. It is encumbered to the mining rights holder to engage in negotiations with the landowner and to strike a negotiated settlement. Agreement to be given access to the land by the landowner needs to be concluded before the commencement of prospecting operations. Ministerial approval is requested for the use of the land for activities that are not covered by the MPRDA. The Minister may investigate any activity on the land which is deemed not to be covered by the right concerned at the time. If a party is found guilty a rectification notice is served and implemented which also leads to the DMR conducting a comprehensive investigation between the rights holder and the landowner. An unresolved dispute usually leads to a compensation being concluded through arbitration or a court relevant to the issue contested Expropriation is only recommended by the DMR to the Minister only when it is deemed that the process will fulfil the MPRDA objectives. The MPRDA clearly articulates that no mineral rights will be given over protected areas unless permission is granted by the Minister.

- **Security of tenure**

Since all mineral rights are vested in the state, the state guarantees security of tenure for a prescribed period under certain conditions. Any permit or right granted may not be ceded or disposed of without the written consent of the Minister, except in the case of change of a controlling interest in listed companies. All permits and rights can be renewed as long as the application states the reasons, period for which the renewal is required, be accompanied by a report reflecting the previous progress achieved or

results, the requirements of the approved environmental management programme and the rehabilitation to be completed and the estimated cost thereof.

- **Participation of Nationals**

This is addressed mainly through the seven pillars of the Mining Charter and the Social and Labour Plans. The Social and Labour Plan (SLP) is a strategy aligned to the principles of the MPRDA to guarantee real transformation. The SLP requires applicants for mining and production rights to develop and implement comprehensive Human Resources Development (HRD) Programmes, Mine Community Development Plan, Housing and Living Conditions Plan, Employment Equity Plan, and Downscaling and Retrenchment Management Plan.

The Broad-Based Socio-Economic (Mining) Charter has been developed with the primary purpose of promoting unbiased access to South Africa's mineral assets to all South African's but with emphasis to HDSA's. The Codes of Good Practise for the Mining Industry have been developed to be utilised by all those who affect and are affected by the Mining industry with achievements of its elements being assessed by the regulator.

Further the mining companies need to maintain their social license to operate by engaging in socio economic impact assessment of the areas in which their mines are planned and develop programs to mitigate the negative socio-economic and environmental impact that may emanate from their operations. In this regard mining companies need to collaborate with the local municipalities where their operations occur and to choose Local Economic Development (LED) projects illustrated in municipalities Integrated Development Plans (IDP's). Their contribution to community development projects should be comparable to value of their mining project.

Mining companies need to also to beneficiate their mineral produced and contribute to the industrialisation of the country in line with section 26 of the MPRDA. Mining

companies can offset the actual value of beneficiation achieved against the ratio of its HDSA ownership obligations which should not exceed 11%.

- **Environmental protection**

All environmental issues are subject to the NEMA which is administered by the DEA. The MPRDA has, through section 37, incorporated the principles as set out in the NEMA to ensure that prospecting and mining must be conducted in accordance with generally accepted principles of Sustainable Development by integrating social, economic and environmental factors into the planning and implementation phases, in order to ensure that exploitation of mineral resources serves present and future generations. In 2008 an agreement was concluded between the Minister of Environmental Affairs and Tourism and the Minister of Minerals and Energy (as they then were) regarding the transfer of the environmental authorizations (EIA) function in respect of mining activities under the MPRDA to the Department of Environmental Affairs and provincial environment departments under the National Environmental Management Act, 1998 (NEMA). According to this agreement, both Departments would effect the necessary legislative changes to the MPRDA and NEMA respectively, and that the transfer of function would then be effective 18 months from the date on which the last amendment act came into effect. The National Environmental Management Amendment Act 62 of 2008 was promulgated on the 5<sup>th</sup> January 2009, and came into effect on the 1<sup>st</sup> May 2009, making all the necessary changes to NEMA. The Minerals and Petroleum Resource Development Amendment Act 49 of 2008 was promulgated on 19 April 2009.

- **Fiscal policy and Taxation**

South Africa has a fiscal framework that is premised on a sustainable countercyclical methodology towards administering revenue and expenditure which is mainly governed by the Tax Act. The mining taxable income is determined in accordance with general tax principles but with modifications such as the capital redemption deduction in respect of mining capital expenditure, ring fencing provisions, the gold formula for gold mining

taxation and prospecting expenditure incurred outside the mining lease area may be claimable against mining income.

## **10. RESULTS OF THE SURVEY CONDUCTED**

A survey was conducted in a form of a questionnaire (Appendix I) which was followed up by one on one discussion with some of the participants. Results of the survey are annexed as Appendix II. The majority of the surveyed respondents (90%) were at senior management/executive level in their organisations, 60% of who were active in mining, 10% in exploration and 30% were consultants in the mining sector. To avoid getting a government perspective on the survey, no government or regulator was involved in the survey as all participants were from listed private companies (30%), or non-listed private companies (70%). The majority of the respondents (40%) were in the employment of large companies employing more than 2 000 people, the remaining 60% of the respondents were well spread from smaller organisations.

### **10.1. Defining the Role of the State**

A somewhat confusing picture emerged under this topic, possibly indicating the confused state the country is presently in regarding this emotive topic. The respondents were divided almost in half on whether the State should be the only custodian of mineral rights, with 50% agreeing, 40% disagreeing and 10% being neutral. The respondents agreed that the state should enforce mandatory joint venturing but not with the State Owned Entities (SOE) as the only way to access mineral deposits. The majority of participants (80%) agreed that the state should have equity in the mineral sector, and that all SOEs should not be privatised (60%) but should be treated in the same manner as any other mining rights holder under the law and compete equally with the private companies. A small majority of respondents at 40% agreed that state enterprises should have preferential rights to certain minerals or areas and that the state could sign mining agreements with each company to allow for individual company's flexibility whilst it operates in the mining sector through a mining enterprise.

## **10.2. Access to Mineral Rights by Companies**

On the granting of rights, all respondents agree that there should be a mining code/law and regulations as the government's principal policy vehicle regarding exploitation of the country's natural resources. The code should give support to national priorities, give clear guidelines on rehabilitation and BEE, which should be broad-based, ensure that the state and communities benefit, ban and limit exports of raw materials and provide support for beneficiation activities, promote SMME development, and incentives for beneficiation, and foster competitive beneficiation with mining having preferential access to infrastructure. The majority also agree that the authority of granting rights should rest with the implementing executive authority, for example the DMR, who should maintain an open registry and grant rights on a first come, first served basis, with no discretionary powers. The executive authority should allow for an open tender process for available rights which will include rights that would have been relinquished if not used. Transfer of prospecting rights to third parties should be allowed. The majority of respondents also agree that financial information should be submitted when applying, though they agree that this practise does discriminate against junior mining companies and HDSA companies.

## **10.3. Security of Tenure**

The majority of the respondents believe that 3 years is a sufficient period within which to carry prospecting before applying for renewal and they would prefer an automatic right to mine what is discovered during the exploration phase subject to compliance with applicable legislation. The main requirement sighted in this regard is an approved EIA/rehabilitation plan. Regarding the treatment of the mining rights of coexisting minerals, the respondents are divided on whether each mineral should be treated separately or not. They agreed that there should be fees payable for a right and they should be escalated during exploration and mining. On the cancellation of rights, the respondents suggest that there should be clear guidelines, cancellation criteria should not be flexible and must be fair and be open to arbitration.

#### **10.4. Participation of Nationals**

In the 1998 Minerals and Mining Policy of South Africa, a document also known as the White Paper for the South African Minerals Industry, it is reflected that in terms of the Constitution, the State is bound to take legislative and other measures to enable the citizens to gain access to rights in land on an equitable basis. In addition, it empowers the State to bring about land rights (including mineral rights) and other related reforms to redress the results of past racial discrimination. In line with this statement, all respondents affirmed this policy direction. The respondents agree that nationals of the country in which mining takes place, who can be trained, should be given relevant skills that can be used at the mines, and entrepreneurs should be developed amongst them, but not ‘tenderpreneurs’. In relation to the development of the infrastructure in the areas where mining takes place, the respondents felt that this is the responsibility of government; however, the mining companies should contribute and develop a symbiotic relationship with the communities. The rights of the locals should be respected but not at the expense of others. One of the respondents suggested that government should consider educating locals about their rights and the implication thereof. There are a number of suggestions regarding the HDSAs; namely:

- HDSAs should strive to be operational, work hard and not expect hand-outs.
- Shares should be reserved for HDSAs.
- HDSAs should be allowed to develop their enterprises.
- ‘Once empowered always empowered’ notion should be applied.
- Community trusts should be established for each mining area.
- Empowerment laws that have a negative effect on empowerment should be revised.
- Apprenticeship programs be developed for the locals to offer the relevant skills and
- Encourage locals to be able to be involved in mineral beneficiation/value add where possible.

90% of the respondents agree that all of the above should be linked to time, for example within the first year of mining 30% of employable youth in the area should have been absorbed into the apprenticeship scheme of mines operating in the area.

### **10.5. Environmental Protection**

The White Paper, 1998, recognised the Department of Environmental Affairs and Tourism as its lead agent for the role of environmental management, and the Department of Water Affairs and Forestry as lead agent for national water resources. However, the majority of respondents believe that only one ministry should be responsible for both mining and environmental issues pertaining to mining, with no separation of the mineral licensing process from the environmental permitting regime. However, there is an understanding that where there is separation of these processes, mineral licensing should be granted first and the environmental considerations should be simultaneously, not in a piecemeal manner. All are in agreement that there should be financial guarantees in a form of a trust fund for environmental liability post mining, and the contribution to such a fund should be done annually and not once off, with the funds being maintained by private banks or the state. At the end of the operations, the funds should either, be refunded back to the companies, be used for community development or be kept either by an agency or state for future rehabilitation. Several recommendations emerged regarding how environmental obligations should be treated in taxation: either they should not be linked to tax, be tax deductible, not taxed at all or 10-15% of revenue be taxed for rehabilitation. All participants were against self-policing as an option as far as environmental issues are concerned, as they feared that self-policing would be open to abuse.

### **10.6. Fiscal Policy and Mineral Taxation**

Participants would prefer operating in a mining environment where there is profit-based taxation and not output-based tax and/or input-based tax. They also agreed that there should be a specified tax holiday.

Most indicated that the MPRDA is not an impediment though it has some ambiguities that need to be corrected. There is a feeling that new entrants of HDSAs are being blocked in preference of existing HDSAs in licensing. Reasons put forward as the cause of this uncertainty in the South African mineral industry are: uncertainty in the legislation, no clear permitting system, never-ending debates on nationalisation, length of time spent before licenses are approved, labour unrests, expected carbon tax, infrastructure(rail) collapse, wage inflation, inconsistency in applying the law, multinationals negative about transformation, and speculators. All agreed that the intentions of the SLP are noble. However, in practice little is happening, indicating frustrations in working with municipalities and traditional communities. The SLP is not specific regarding the type of investment expected and there is too much discretionary hence different interpretations by DMR officials. A suggestion put forward in this regard is that the DMR should look at introducing industry developmental projects.

The reasons put forward by participants for the lack of appetite for beneficiation in South Africa are as follows: a lack of commitment; lack of innovation; huge capex outlay needed; unproductive labour in South Africa; the high returns on benefited products results in multinationals benefiting abroad, where they pay less tax; lack of infrastructure; high electricity costs; and lack of skills base.

When asked what else should be done to ensure that all stakeholders benefit from the mineral endowment of South Africa, participants indicated that there should be a proactive engagement by the DMR; compliance should be enforced especially on the SLP; free enterprise with set benefits for example 10% going to community trusts based on positive cash flow, not profit, should be encouraged; enrichment of individuals should be discouraged; community trusts should be encouraged to play a role as BEE companies; state ownership should be encouraged; Share Option Schemes should be encouraged, and the “once empowered always empowered” notion should be introduced.

**Table 4: Conclusions and Recommendations for South Africa’s Mineral Regulatory Regime**

<b>DEFINE THE ROLE OF THE STATE</b>			
<b>International best practise</b>	<b>MPRDA 2002</b>	<b>MPRDA Amendment Bill 2014</b>	<b>Survey Results</b>
<p>The state’s overall responsibility is to protect the interests of its citizens. The state is enshrined with the important responsibility of utilising its mineral resources for the empowerment of its citizens. It should employ the correct regulatory instruments to utilise its mineral wealth for the empowerment of its people. It can achieve this through adequate mineral regulation and /or direct participation through ownership in its domestic mineral industry by using any of the following five</p>	<p>The State is the custodian of mineral rights and the relevant Minister administers policy implementation. Currently the State does not participate in full in the exploitation of the mineral resources of the country. No other agreements, in this regard are applicable in South Africa. However, there have been proposals in the form of a discussion paper, the State intervention in the minerals sector (SIMS Report 2012) under discussions in the</p>	<p>The MPRDA is being amended in order to review, relook and fix ambiguities that are in the MPRDA guided primarily by the recent court judgements. The amendments allow the Minister to govern various elements of the mineral regulation framework, establish timeframes and the associated policies. There has been no change on the custodianship of the mineral rights as they still remain held by the state.</p>	<p>A somewhat confusing picture emerged under this topic. This probably indicates the confused state the country is presently in regarding this emotive topic. The respondents were divided almost in half on whether the State should be the only custodian of mineral rights, with 50% agreeing, 40% disagreeing and 10% being neutral. The</p>

<p>forms of ownership, these are; compulsory joint venturing, compulsory contracting or participation, preferential competition, non-preferential competition and privatisation.</p> <p>The type of mineral ownership adopted should be aligned to other national policies to achieve policy coherence across the various sectors of the economy. Policy harmonisation is important as the mining sector impacts other sectors of the economy, as it is not a stand-alone sector as it is usually perceived.</p>	<p>ruling party, the African National Congress. The SIMS Report is proposing a different scenario to the current regime which might influence the current status quo. Such proposals are not included in this research paper as they are not government policy as yet.</p> <p>Both statute and common law regulate the South African mineral industry with the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA) being the main regulatory framework for the domestic mining industry. It is well documented in the MPRDA that in instances where there's conflict</p>		<p>respondents agreed that the state should enforce mandatory joint venturing but not with the State Owned Entities (SOE) as the only way to access mineral deposits. The majority of participants (80%) agreed that the state should have equity in the mineral sector, all SOE's should not be privatised (60%) but should be treated in the same manner as any other mining rights holders under the law and compete equally</p>
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	<p>between common law and the MPRDA, the latter will prevail.</p> <p>It is also worth mentioning that the MPRDA does not abolish common law as interpreting the MPRDA requires the consideration of the common law. Under the MPRDA the regulation of the industry is conducted primarily from the national office located in Pretoria and the respective regional offices of the Department of Mineral Resources (DMR)</p>		<p>with the private companies. A small majority of respondents at 40% agreed that state enterprises should have preferential rights to certain minerals or areas and that the state could sign mining agreements with each company to allow for individual company's flexibility whilst it operates in the mining sector through a mining enterprise.</p>
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**Recommendations:**

The State should remain as the custodian of the mineral rights. Direct State intervention is recommended but by not necessarily in shareholding in mining companies, but by ensuring that the key products of key strategic minerals are made available by mining companies for local use or for value addition prior to being exported.

<b>THE MINERAL HOSTING NATION’S REGULATORY FUNCTION</b>			
<b>International best practise</b>	<b>MPRDA 2002</b>	<b>MPRDA Amendment Bill 2014</b>	<b>Survey Results</b>
Sovereign nations have the right to accept and /or to deny investors into the domestic mineral economy. In practice the areas available, how granting of exploration or mining rights is made and by whom and the consideration of the environment are the four factors being used as a	The Minister has the authority to issue, grant, refuse and administer all rights. The acquiring of rights is on a first come, first served basis which dictates that an application for prospecting right, mining right or mining permit has to be granted if	The amendments now offer the Minister authority to regulate any change of control and ownership in both listed and unlisted companies. The amendments are explicit as they state that an entity listed or unlisted, which holds prospecting or mining rights or an interests in those rights cannot cede, transfer or dispose of any of those rights without receiving	On the granting of rights, all respondents agreed that there should be a mining code/law and regulations as the government principal policy vehicle regarding exploitation of the country’s natural resources. The code should give support to national priorities, give clear

<p>             criterion to grant permission to invest. Granting permission to invest relies on the overall host nation's government. This includes all sectors of the economy that will be affected by the venture being satisfied with the investment proposal.           </p> <p>             Various methods are being used in a mineral regulatory framework to articulate the host nation's mineral policy objectives. In other cases certain regulatory devices have to cater for the uniqueness of a mineral development project. MA's are mostly used in these unique cases especially when the mineral regulatory regime is outdated or no longer           </p>	<p>             there is no other application for the same right, for the matching mineral and territory. This is coupled with the Minister being able to illustrate the procedure for the allocation of these rights. Private entities are empowered to obtain a permit to conduct various activities which include reconnaissance, practical and technical cooperation, mining and retention. Private entities have access to acquire prospecting, exploration and mining rights. A mining right should be granted exclusively to the holders of           </p>	<p>             written ministerial consent. The first come first served principle of processing of applications is replaced by the auctioning of rights.           </p> <p>             Applicants for prospecting rights are now compelled to comply with BEE objectives as enshrined in the amended Mining Charter.           </p> <p>             In relation to liquidation, the amendments point to an event whereby a holder of a right gets liquidated or sequestrated which requires the right or permit to be part and parcel of the insolvent estate. Ministerial written consent is required for it to be transferred to a new owner.           </p> <p>             The regulation of the domestic minerals sector has been           </p>	<p>             guidelines on rehabilitation and BEE which should be broad-based, ensure that the state and communities benefit, ban and limit exports of raw materials and provide support for beneficiation activities, promote SMME development, offer incentives for beneficiation and foster competitive beneficiation with mining having preferential access to infrastructure. The majority also agree that the authority of granting rights should rest with the implementing executive authority, the DMR, who should maintain an open registry and grant           </p>
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<p>reflects contemporary political and economic interests. The authority to grant and regulate mining rights should be clearly expressed. This authority can either be delegated to a government unit or to the executive authority. Clear legislated guidelines are essential when authority to grant mining rights is vested in the executive authority.</p> <p>The competitive (tender process) and the free-entry system are generally the two mineral rights allocation methods utilised internationally. To grant access for mineral exploitation host nation can either, free-up</p>	<p>a prospecting or retention right. Renewal of prospecting, exploration and mining right is exclusively guaranteed to holders of those rights. A limitation is imposed on a reconnaissance permit in that the holder of such a permit is not granted an exclusive right to be offered a prospecting or a mining right and cannot therefore be automatically engaged in prospecting or mining activities.</p> <p>Further, “any person who intends to beneficiate any mineral mined in the Republic outside the</p>	<p>overwhelmed with the management of different holders or applicants for rights for different minerals appearing in the same ore body which has been termed as associated minerals. The associated minerals has been defined as follows:</p> <p><i>“ Any mineral which occurs in mineralogical association with, and in the same core deposit as the primary mineral being mined in terms of a mining right, where it is physically impossible to mine the primary mineral without also mining the mineral associated therewith.”</i></p> <p>Concentration of minerals is now a new term used as initially the term concentration of resources was used. This relates to decreasing the granting of additional rights to an entity that may make that entity to dominate in the mining industry.</p>	<p>rights on a first come, first served basis, with no discretionary powers. The executive authority should allow for an open tender process for available rights which will include rights that would have been relinquished if not used. Transfer of prospecting rights to third parties should be allowed. The majority of respondents also agreed that financial information should be submitted when applying though they agree that this practise does discriminate against junior mining companies and HDSA companies.</p>
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<p>known reserves, provide an open title-registry or provide mineral rights through standardised agreements or permits/leases.</p> <p>Mineral regulation is used to coerce the mining industry to compensate the host nation for the removal of its non-renewable resources by using a variety of instruments. These include the imposition of taxes, requirements for mining entities contribution to industrial diversification and the creation of state owned mining entities. In cases where the state both regulates and participates in the mining industry, clear flawless</p>	<p>Republic may only do so after written notice and in consultation with the Minister.” (MPRDA, 2002)</p> <p>In applying for a mining right applicants need to prove that they have required capacity to engage in a mineral development project aligned to their Mining Work Program (MWP), Environmental Management Plan (EMP), Social and Labour Plan (SLP) and the capacity to meet the legislated requirements of the Mine Health and Safety Act 29 of 1996.</p> <p>Theoretically there are no</p>	<p>The Minister is empowered to reject the granting of any right which the Minister may deem as having the potential to lead to a concentration of rights. This now applies for both a mining and a prospecting right.</p>	
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<p>legislated guidelines which explain the exact size of the government's stake and how its shares are acquired coupled with its roles and responsibilities in mineral development project where the state partners with a private entity should be agreed upon upfront.</p> <p>In order for both parties to share the risk associated with a financially intensive mineral investment project, the state's role and responsibilities need to be finalised early during the exploration phase of the project and free equity by the state needs to be discouraged. What is evident is that the</p>	<p>limitations on a foreign entity being granted mining rights. However, any holder of a mining right has to adhere to the Broad Based Socio-Economic Empowerment Charter (Mining Charter) requirements of the country which compels the holder of the right to set aside 26% of equity to Historically Disadvantaged South Africans (HDSAs). Furthermore, the holder of the right doesn't have an exclusive real right on the surface in which the minerals are found. It is encumbered to the mining</p>		
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<p>SMEs should be operated effectively as a fully-fledged entity that is aimed at making profit and also contributing to socio economic requirements. Profits generated by the SME should not only be used to fund state budgetary deficits. As a fully-fledged entity the SME should constantly maintain a strong balance sheet, be allowed to retain a portion of its earnings to fund its operational expenses and expansion.</p> <p>Host nations contractual obligations should clearly stipulate the terms and conditions for investment aimed at linking the mining</p>	<p>rights holder to engage in negotiations with the landowner and to strike a negotiated settlement. Agreement to be given access to the land by the landowner needs to be concluded before the commencement of prospecting operations. Ministerial approval is requested for the use of the land for activities that are not covered by the MPRDA. The Minister may investigate any activity on the land which is deemed not to be covered by the right concerned at the time. If a party is found guilty, a</p>		
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<p>industry with other sectors of the economy. The Indonesian model known as COW seems to be effective as it clearly expresses the monitoring of the contractual obligations throughout the value chain as it outlines the requirements pertaining to the exploration phase, the mining phase and mine closure.</p> <p>Mining fiscal and legislative arrangements may be established solely to provide certainty especially to reassure investors of no fiscal or regulatory changes if and when the political regime changes. These agreements are designated as mineral</p>	<p>rectification notice is served and implemented which also leads to the DMR conducting a comprehensive investigation between the rights holder and the landowner. An unresolved dispute usually leads to a compensation being concluded through arbitration or a court relevant to the issue contested. Expropriation is only recommended by the DMR to the Minister only when it is deemed that the process will fulfil the MPRDA objectives. The MPRDA clearly articulates that no mineral rights will</p>		
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<p>investment stabilisation agreements. The requirement for proof of financial and technical capacity from mineral rights applicants is essential but can be seen to discriminate against new entrants. This can be resolved by using the first come and first served method to enable new entrants to explore, develop or even transfer the mineral right to an entity that has the capacity to develop it further. Transferability of mineral rights is important in encouraging and in growing exploration activities which increase Greenfield projects and a number of future mining</p>	<p>be given over protected areas unless permission is granted by the Minister.</p>		
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projects.			
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**Recommendations:**

The authority of granting and change of control and ownership of rights should remain with the executive authority with no discretionary powers and should be on first come, first served principle. Auctioning of rights is not recommended as the state would have to spend more unnecessary resources. A highly reliable mining cadastre based on a national grid or uniform mapping system is a key to a successful mining regime which could attract investors. State intervention should be minimal in deciding where and when to explore and when to move discoveries into commercial operations thus guaranteeing a security of tenure is critical. It is recommended that the State should consider a dual approach where explorers have the option to apply for either a time limited authorisation or an open-ended authorisation tied to financial obligation.

<b>SECURITY OF TENURE</b>			
<b>International best practise</b>	<b>MPRDA 2002</b>	<b>MPRDA Amendment Bill 2014</b>	<b>Survey Results</b>
<p>It is clear from this chapter that an investor should be assured that the mineral right attained will be sustained for the duration of a project as a mineral project is associated with significant investment prior to receiving any returns. It is therefore necessary for the host nation to develop a mineral policy that will promote the sustainable exploitation of their mineral resource. However, it is of strategic importance that both the interest of the investor and that of the host nation are satisfied. This can be satisfied by allowing the mineral right holder to develop the</p>	<p>Since all mineral rights are vested in the state, the state guarantees security of tenure for a prescribed period under certain conditions. Any permit or right granted may not be ceded or disposed of without the written consent of the Minister, except in the case of change of a controlling interest in listed companies. All permits and rights can be renewed as long as the application states the reasons, period for which the renewal is required, be accompanied by a report reflecting the previous progress achieved or results, the</p>	<p>Security of tenure is guaranteed as was in the MPRDA</p>	<p>The majority of the respondents believe that 3 years is a sufficient period within which to carry prospecting before applying for a renewal and they would prefer an automatic right to mine what is discovered during the exploration phase subject to compliance with applicable legislation. The main requirement sighted in this regard is an</p>

<p>mineral resource independently whilst adhering to the prescribed regulatory requirements. Host nations impose a variety of requirements in the promotion of full, quick exploitation of the mineral resource. However, it is critical for the investor to be assured by the host nation that the holder of the exploration right has the ultimate right to receive a mining right for the respective area of exploration. The exploration right should clearly indicate whether the right offers access to all the minerals in that particular area or is limited. However, it is less complicated when the exploration right is granted for all minerals. Imposition of minimum</p>	<p>requirements of the approved environmental management programme and the rehabilitation to be completed and the estimated cost thereof.</p>		<p>approved EIA/rehabilitation plan. On how mining rights of coexisting minerals should be treated, the respondents are divided on whether each mineral should be treated separately or not. They agreed that, there should be fees payable for a right and they should be escalated during exploration and mining. On the cancellation of rights, the respondents suggest that there should be clear guidelines, cancellation</p>
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<p>fees that increase over time coupled with a strong monitoring of work of license holder are mostly favoured by the investors, but this requires a qualitative judgement as every project is unique. The procedure for the cancellation of a right should be transparent, objective and be explained in full at the time of applying. Aligning the cancellation process with international best practise is preferred by investors and will go a long way in making the host nation's jurisdiction a preferred destination for investments.</p>			<p>criteria should not be flexible and must be fair and be open to arbitration.</p>
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**Recommendations:**

There are adequate safe guards in the MPRDA, the constitution and also access to courts are enough guarantees for the security of tenure and nothing further should be considered in this regard. The Amendment Bill is also moving in the right direction in regulating the mine dumps, but it is recommended that a transitional or a rights conversion process for mine dumps be considered as without such a process the amendments may constitute unlawful expropriation of existing rights over mine dumps. The Amendment Bill has also adequately catered for the coexisting minerals.

<b>PARTICIPATION OF NATIONALS</b>			
<b>International best practise</b>	<b>MPRDA 2002</b>	<b>MPRDA Amendment Bill 2014</b>	<b>Survey Results</b>
It is clear from this chapter that during the years, host nations have moved away from defining local content as local equity participation by the state (nationalisation of mines of the 1960's) to locals being offered equity. This has also been recognised in the	This is addressed mainly through the seven pillars of the Mining Charter and the Social and Labour Plans. The Social and Labour Plan (SLP) is a strategy aligned to the principles of the MPRDA to guarantee real transformation. The SLP	Participation of nationals is still guided by the mining charter and the SLP's. However, the new section 23(2) of the amendments allows the Minister to be empowered in the process of granting a right to consider the socio-economic requirements of the area in which the right is being	In the 1998 Minerals and Mining Policy of South Africa, a document also known as the White Paper for the South African Minerals Industry, it is reflected that "in terms of the Constitution, the State is bound to take legislative and other measures

<p>African Mining Vision of 2009. This vision also emphasises the creation of knowledge based economies, the promotion of integration of mining industry into economies of host nations through the development of linkages and also the integration of mineral development projects into the broader national economy. With all the variable tools that host nations have at their disposal, they have a responsibility to use mining in developing expertise and experience amongst their populace.</p>	<p>requires applicants for mining and production rights to develop and implement comprehensive Human Resources Development (HRD) Programmes, Mine Community Development Plan, Housing and Living Conditions Plan, Employment Equity Plan, and Downscaling and Retrenchment Management Plan.</p> <p>The Broad-Based Socio-Economic (Mining) Charter has been developed with the primary purpose of promoting unbiased access to South Africa's mineral</p>	<p>applied for. The Minister is authorised to direct the applicant of that right to address those socio economic challenges.</p> <p>The Historically Disadvantaged Person's (HDP) definition which in the MPRDA meant any person or community that was unfairly discriminated against before the new Constitution became law, has now being replaced with a far more reaching definition which now excludes white women. The new definition now explains that HDP's refers to people or a category or community that had no franchise in national elections before the new Constitution came into law which should represent the country's demographics.</p>	<p>to enable the citizens to gain access to rights in land on an equitable basis. In addition, it empowers the State to bring about land rights (including mineral rights) and other related reforms to redress the results of past racial discrimination." In line with this statement, all respondents affirmed this policy direction. The respondents agree that nationals where mining takes place, who can be trained, should be given relevant skills that can be used at the mines and entrepreneurs should be developed amongst them but not 'tenderpreneurs'. In relation</p>
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	<p>assets to all South Africans but with emphasis to HDSA's. The Codes of Good Practise for the Mining Industry have been developed to be utilised by all those who affect and are affected by the Mining industry with achievements of its elements being assessed by the regulator.</p> <p>Further, the mining companies need to maintain their social license to operate by engaging in socio economic impact assessment of the areas in which their mines are planned and develop programs to mitigate the</p>	<p>In relation to beneficiation, the Minister is given authority to set the percentage of beneficiation required for every mineral and the costs for the value addition process. This will be done through a Ministerial notice placed in the government gazette. Certain mineral commodities will be deemed as strategic and through a Ministerial notice will be gazetted. Such strategic mineral commodities will not be exported without receiving written approval from the Minister.</p> <p>The amendments also place regulatory restriction on exports of minerals as the Minister is required to give written consent for the export of any designated</p>	<p>to the development of the infrastructure in the areas where mining takes place, the respondents felt that this is the responsibility of government, though, the mining companies should contribute and develop a symbiotic relationship with the communities. The rights of the locals should be respected but not at the expense of others. One of the respondents suggested that government should consider teaching locals on their rights and the implication thereof. There are a number of suggestions regarding the HDSAs; namely, they:</p>
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	<p>negative socio-economic and environmental impact that may emanate from their operations. In this regard mining companies need to collaborate with local municipalities where their operations occur and to choose Local Economic Development (LED) projects illustrated in municipalities Integrated Development Plans (IDP's). Their contribution to community development projects should be comparable to value of their mining project.</p> <p>Mining companies need to also benefit mineral</p>	<p>mineral mined.</p>	<ul style="list-style-type: none"> <li>• Should strive to be operational and not expect handouts but work hard.</li> <li>• Shares be reserved for HDSAs.</li> <li>• HDSAs be allowed to develop their enterprises.</li> <li>• 'Once empowered always empowered' notion should be applied.</li> <li>• Community trust be established for each mining area.</li> <li>• Empowerment laws that have negative</li> </ul>
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	<p>produced and contribute to the industrialisation of the country in line with section 26 of the MPRDA. Mining companies can offset the actual value of beneficiation achieved against the ratio of their HDSA ownership obligations. However, these offsets should not exceed 11%.</p>		<p>effect on empowerment should be revised.</p> <ul style="list-style-type: none"> <li>• Apprenticeship programs be developed for the locals to offer the relevant skills and</li> <li>• Encourage locals to be involved in mineral beneficiation/value add where possible.</li> </ul> <p>Ninety per cent of the respondents agree that all of the above should be linked to time e.g. within the first year of mining, 30% of employable youth in the area should have been absorbed</p>
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			into the apprenticeship scheme of mines operating in the area.
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**Recommendations:**

Signing of Mining Agreements is critical in that MAs can allow different conditions in different circumstances unlike the current rigid system where one size fits all. The MPRDA should be strengthened by detailing how communities where mining is taking place should be involved. LEDs must be strengthened in areas of mining. Legislation must enforce the existence of implementation monitoring bodies that have teeth and accountable to the national government.

In encouraging local beneficiation the state should establish, either in the form of joint ventures, beneficiation companies. It is further recommended that the state should incentivise beneficiation in a form of reduced royalties for all mineral depending on the level of beneficiation conducted in the country.

<b>ENVIRONMENTAL PROTECTION</b>			
<b>International best practise</b>	<b>MPRDA 2002</b>	<b>MPRDA Amendment Bill 2014</b>	<b>Survey Results</b>
<p>Due to a growing concern in finding effective solutions in managing the adverse effects on environment emanating from mining and other industries, the EIA is a management tool that has proven to be effective in managing the environment in the mining sector. The EIA relies on the existence of an EMS which should be incorporated in the daily operational activities of the mine. In managing the environment, host nations use either the sectorial or the central</p>	<p>All environmental issues are subject to the NEMA which is administered by the DEA and the MPRDA has through section 37 incorporated the principles as set out in the National Environmental Management Act to ensure that prospecting and mining must be conducted in accordance with generally accepted principles of Sustainable Development by integrating social, economic and environmental factors into the planning and implementation</p>	<p>The Bill has adopted a sectorial approach where the ministry responsible for mining is delegated to be responsible for the evaluation, approval and monitoring for environmental impact assessment and mitigation plans. In relation to Environmental liability the amended act requires that the holder of any rights, even a retention permit and a previous holder of an old order right or previous owner of work that stopped is still liable for all the environmental degradation,</p>	<p>The White Paper, 1998, recognised the Department of Environmental Affairs and Tourism as its lead agent for the role of environmental management and the Department of Water Affairs and Forestry as lead agent for national water resources. However, the majority of respondents believe</p>

<p>approach depending on the general approach the nation has towards environmental management. There does not seem to be a defined method of deciding on either methodology by host nations.</p>	<p>phases, in order to ensure that exploitation of mineral resources serves present and future generations. In 2008 an agreement was concluded between the Minister of Environmental Affairs and Tourism and the Minister of Minerals and Energy (as they then were) regarding the transfer of the environmental authorizations (EIA) function in respect of mining activities under the MPRDA to the Department of Environmental Affairs and provincial environment departments under the National Environmental Management Act, 1998 (NEMA). According to this</p>	<p>ecological ruin, any forms of pollution, the pumping and treatment of polluted or used water and the rehabilitation and closure of the site. Furthermore, the Minister will issue a certificate, bearing in mind that a share of the financial provision needs to be set aside for any environmental problems that may emerge in the future for a period of 20 years, after having received a closure certificate.</p>	<p>that only one ministry should be responsible for both mining and environmental issues pertaining to mining with no separation of the mineral licensing process from the environmental permitting regime. However, there is an understanding that, where there is separation of these processes, mineral licensing should be granted first and the environmental considerations should be at once not in a</p>
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	<p>agreement, both Departments would effect the necessary legislative changes to the MPRDA and NEMA respectively, and that the transfer of function would then be effective 18 months from the date on which the last amendment act came into effect. The National Environmental Management Amendment Act 62 of 2008 was promulgated on the 5<sup>th</sup> January 2009, and came into effect on the 1<sup>st</sup> May 2009, making all the necessary changes to NEMA. The Minerals and Petroleum Resource Development Amendment Act 49 of 2008 was promulgated on 19 April 2009.</p>		<p>piecemeal. All are in agreement that there should be financial guarantees in a form of a trust fund for environmental liability post mining and the contribution to such a fund should be done annually and not once off with the funds being maintained by private banks or the state. At the end of the operations, the funds should either, be refunded back to the companies, be used for community development or be</p>
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			<p>kept either by an agency or state for future rehabilitation. Several recommendations came about on how environmental obligations should be treated in taxation, it was either that they should not be linked to tax, be tax deductible, not taxed at all or 10-15% of revenue be taxed for rehabilitation. All participants were against self-policing as an option as far as environmental issues</p>
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			are concerned, as they feared that self-policing would be open to abuse.
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**Recommendations**

A sectorial approach is recommended, where the ministry responsible for mining is delegated to be responsible for the evaluation, approval and monitoring for environmental impact assessments and mitigation plans. It should be only in cases of appeal where the Department of Environmental Affairs (DEA) is allowed to intervene. However, the amendment and improvement of the relevant legislation should remain the responsibility of the DEA. The same should also apply in the case of the water licensing regime for mining.

**FISCAL POLICY AND MINERAL TAXATION**

<b>International best practise</b>	<b>MPRDA 2002</b>	<b>MPRDA Amendment Bill 2014</b>	<b>Survey Results</b>
<p>A nation’s fiscal policy is responsible for illustrating the manner in which the state will collect revenue and the types of taxes used and how state funds will be spent. In relation to taxation the state also has specific sectoral taxation methods. The mining sector mainly employs three types of taxes; these are profit-based taxes, output-based taxes and input-based taxes. It is critical for the host nation’s mineral policy framework to</p>	<p>South Africa has a fiscal framework that is premised on a sustainable counter cyclical methodology towards administering revenue and expenditure which is mainly governed by the Tax Act. The mining taxable income is determined in accordance with general tax principles but with modifications like the capital redemption deduction in respect of mining capital expenditure, ring fencing provisions, the gold formula for gold mining taxation and prospecting expenditure</p>	<p>Fiscal policy and taxation are outside the scope of the MPRDA Amendment Bill. However, it should be noted that the Minister of Finance appointed Judge Davis to chair a commission on taxation in South Africa which is expected to make recommendations also on the future mining taxation in South Africa.</p>	<p>Participants would prefer operating in a mining environment where there is profit- based taxation and not output-based tax and or input-based tax and they also agreed that there should be a specified tax holiday.</p> <p>Most indicated that the MPRDA is not an impediment though it has some ambiguities that need to be corrected. There is a feeling that new entrants of HDSAs are being blocked in preference of existing HDSAs</p>

<p>articulate the taxation tools utilised within its domestic mining sector and the various incentives available, which should be globally competitive. Furthermore, the tax regime in place must adhere to operational requirements of the mining industry but at the same time fulfil the expectations of the mining industry stakeholders.</p>	<p>incurred outside the mining lease area may be claimable against mining income.</p>		<p>in licensing. Reasons put forward as the cause of uncertainty in the South African mineral industry are, uncertainty in the legislation, no clear permitting system, never- ending debates on nationalisation, length of time spent before licenses are approved, labour unrests, expected carbon tax, infrastructure(rail) collapse, wage inflation, inconsistency in applying the law, multinationals negative about transformation and speculators. All agreed that the intentions of the SLPs are noble, however, in practice little is happening indicating</p>
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			<p>frustrations in working with municipalities and traditional communities and not specific on what type of investment should be put and too much discretion, hence different interpretations by DMR officials. A suggestion put forward in this regard is that the DMR should look at introducing industry developmental projects.</p> <p>On reasons why there is lack of appetite on beneficiation in South Africa, participants indicated a lack of commitment, lack of innovation, huge capex outlay needed and unproductive labour in South Africa. Due</p>
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			<p>to high returns on benefited products, multinationals benefit abroad where they pay less tax. Lack of infrastructure; high electricity costs and lack of skills base are some of the issues raised as to why beneficiation is not happening in South Africa.</p> <p>When asked what else should be done to ensure that all stakeholders benefit from mineral endowment of South Africa, participants indicated that there should be a proactive engagement by the DMR, compliance should be enforced especially on the SLP, free enterprise with set</p>
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			benefits e.g. 10% going to community trusts based on positive cash flow, not profit, should be encouraged, enrichment of individuals should be discouraged, community trusts should be encouraged to play a role as BEE companies, state ownership should be encouraged, Share Option Schemes should be encouraged, and the “once empowered always empowered” notion should be introduced.
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**Recommendations:**

Considering the cyclical nature of the mining sector, it is recommended that a tax system based on a scale where a high percentage tax is paid when profits are high but diminishes with the decrease in profits of a mining operation is implemented. All minerals should be subjected to royalties. However, all beneficiated products should attract less royalty payments depending on the level of refining with the most value added products attracting no royalties. This will help in encouraging local beneficiation.

## **11. RESEARCH PROJECT RECOMMENDATIONS**

As reflected in Table 4, changes required by the study would be minimal and can easily be accommodated in future amendments of the MPRDA from its current form in making the sector more attractive than it is currently. This research project has attempted to answer its main research question which guided this study. These questions and answers are discussed below and comprehensive recommendations are given.

**(a) Is the MPRDA a suitable mining legislative framework to enable the minerals sector to adequately contribute to the sustainable exploitation of South Africa's mineral resources?**

Yes, the MPRDA is a suitable legislative framework aligned to international best practise. However, it can be enhanced by incorporating the recommendations from this research projects which are outlined below.

**(b) Have there been difficulties in the implementation of the Act?**

Yes, there are several gaps in implementation of the MPRDA which were highlighted in the research survey conducted. Recommendations have been given to fill these gaps.

**(c) Is there merit in looking at an alternative mineral policy and legislative framework that will be effective in enabling the sustainable exploitation of South Africa's mineral wealth?**

There is no need for an overhaul of the entire mineral policy and legislative framework. However, it is necessary that continuous amendments are employed in line with lessons learned from practical experiences. The recommendations from this study also offer several areas of improvement.

### **11.1. The role of the state**

The State should remain as the custodian of the mineral rights. Direct State intervention is recommended but not necessarily in the direct shareholding in mining companies, but by ensuring that the key products of key strategic minerals are made available by mining companies for local use or for value addition prior to being exported.

### **11.2. The Mineral-host nations regulatory function**

The authority of granting and change of control and ownership of rights should remain with the executive authority with no discretionary powers and should be on first come, first served principle. Auctioning of rights is not recommended as the state would have to spend more unnecessary resources. A highly reliable mining cadastre based on a national grid or uniform mapping system is key to a successful mining regime which could attract investors. State intervention should be minimal in deciding where and when to explore and when to move discoveries into commercial operations, thus guaranteeing a security of tenure is critical. It is recommended that the State should consider a dual approach where explorers have the option to apply for either a time limited authorisation or an open-ended authorisation tied to financial obligation.

### **11.3. Security of tenure**

There are adequate safe guards in the MPRDA, the constitution and access to courts that guarantees the security of tenure and nothing further should be considered in this regard. The Amendment Bill is moving in the right direction in regulating mine dumps, but it is recommended that a transitional or a rights conversion process for mine dumps be considered as without such a process the amendments may constitute unlawful expropriation of existing rights over mine dumps. The Amendment Bill also adequately addresses the critical issue of coexisting minerals.

#### **11.4. Participation of Nationals**

Signing of Mining Agreements is critical and is recommended, as MAs can allow different conditions in different circumstances unlike the current rigid system where one size fits all. The MPRDA should be strengthened by detailing how communities where mining is taking place should be involved. LEDs must be strengthened in areas of mining. Legislation must enforce the existence of implementation and monitoring bodies that have teeth and are accountable to national government.

In encouraging local beneficiation the state should establish beneficiation companies, in the form of joint ventures. It is further recommended that the state should incentivise beneficiation by reducing royalties for all minerals depending on the level of beneficiation conducted in the country.

#### **11.5. Environmental protection**

A sectorial approach is recommended, where the ministry responsible for mining is delegated to be responsible for the evaluation, approval and monitoring of environmental impact assessments and mitigation plans. It should be only in cases of appeal where the DEA is allowed to intervene. However, the amendment and improvement of the relevant legislation should remain the responsibility of the DEA. The same sectorial approach should also apply for the water licensing regime.

#### **11.6. Fiscal policy and Mineral Taxation**

Considering the cyclical nature of the mining sector it is recommended that a tax system based on a scale is implemented, where a high percentage tax is paid when profits are high and diminishes with the decrease in profits of a mining operation. Further, all minerals should be subjected to royalties. However, all beneficiated products should attract less royalty payments depending on the level of refining, with the most value added product attracting no royalties. This will go a long way in encouraging local beneficiation.

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**APPENDIX I A (Questionnaire as forwarded to the Participants)**

**The future appropriate and competitive mining policy of South Africa**

**General information**

Top of Form

Person's name (Optional)

Bottom of Form

Top of Form

Company or organisation type

Bottom of Form

Top of Form

Company ownership

Bottom of Form

Top of Form

Number of employees:

Bottom of Form

Top of Form

Your position in the company

## The role of the State in Ownership

Listed below are the different roles the state can play in the mining sector, please indicate to what degree you agree/disagree with the statements by circling the appropriate response:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The state should be the only custodian of Mineral rights	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The state should enforce mandatory joint venturing	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Private companies should have joint ventures with state owned entities as the only way to acquire access to mineral deposits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The state or state enterprises should have preferential rights to certain minerals or areas	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The state should allow private parties to obtain rights to explore or exploit minerals in competition with state bodies	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The state should remain as an operator in the mining sector through ownership of a mining enterprise	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The state owned mining enterprises should be treated in the same manner as any other mining rights holder under the law and must compete equally	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
All state owned enterprises in the minerals sector should be privatised	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The state should have no equity participation in the minerals sector	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government should sign mining agreements with each company operating in its state to allow for individual flexibility.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Granting of rights

Please use the 'drop down' list to choose your answer

Who should be delegated with the authority of granting mineral rights

A special designated agency

Do you believe that the state should have a mining code/law and regulations as the government principal policy vehicle regarding exploitation of the country's natural resources

Yes

If yes above what do you think should be contained in the mining code

If no above how should the mineral resources exploitation be regulated

Should the state maintain an open registry i.e. providing access to information about which areas are available, taken and which applications are pending

Yes

Grant rights in a first come first served basis/ some non-discretionary basis

Yes

Allow transfers of prospecting rights to 3<sup>rd</sup> parties

Yes

Allow for an open tender for available rights

Yes

Allow for a close bidding process for available rights

Yes

Providing rights through standardized agreements or contracts/permits/leases

Yes

Is it necessary to submit technical information with the applications of prospecting and mining rights submission

Is it necessary to submit financial information with exploration and mining rights submission

Does submission of both technical and financial information tend to favour majors and discriminate against junior mining companies and HDSA's companies

Should transferability of prospecting and mining rights be not restricted in order to encourage active exploration programmes

First come first serve principle with no restriction at all

Should RSA enforce/encourage relinquishment of rights if not used at a forced rate e.g. 1<sup>st</sup> year 25%, 2<sup>nd</sup> year 50% etc. or use escalation in the annual renewal for exploration areas

Allow transfer of exploration right to 3<sup>rd</sup> parties or sell

### Security of Tenure

Please use the 'drop down' list to choose your answer

What is a sufficient period within which to carry prospect before applying for a renewal

Do you prefer automatic right to mine what is discovered subject to compliance with applicable regulations

As a mining company as far as the security of tenure is concerned what would you prefer for prospecting

As a prospecting right holder

Is it good to have an exclusive right to obtain a mining right within your exploration area without demonstrating any further commercial, technical or financial ability to develop it or you should also have the following:

How should the mining right of coexisting minerals be treated

**E. Fees payable**

*Please use the 'drop down' list to choose your answer*

Should there be fees payable depending on the size of the prospecting/mining area

Should these be escalated during subsequent years of exploration and/ mining.

Should fees be set at a minimum amount to be spent by a company allocated an area for prospecting or mining that escalates over time

Cancellation of rights – what mechanism should be put in place in order to have a clear and transparent process in the cancellation of right? E.g. open to arbitration process recourse to local judicial process, international arbitration process.

**Participation of Nationals/ Natives/ Aborigines/ HDSA 's**

*In your own words give an indication of your preferences*

Your attitude towards employment of locals and training them to achieve required levels for operations.

Developing local entrepreneurs who can supply the mining activities in the area

Empower locals to participate in mineral beneficiation/increase value addition

Encouraging for the processing of minerals

Provision of service not directly related to mining e.g. medical care and educational for local people

Protection of rights of locals

Development of local infrastructure

Should the above be tied to time

How else could HDSA participate in the sector

### Environment

Please use the 'drop down' list to choose your answer

Do you prefer a central approach i.e. only one ministry responsible for all mining issues and environmental issues pertaining to mining only

Do you prefer a sectorial approach where responsibilities for the evaluation, approval and monitoring for EIA and mitigation plans goes to the Sector ministry

Do you prefer separation between mineral licensing process from Environmental permitting regime

Where they're separated should mineral licensing be guaranteed first

Where they're separated should Environment permitting regime be first

Should all environmental considerations pertaining to mining be conducted by a single environmental ministry be done in a piece meal

Should environmental considerations be done at once for all mining work to be undertaken.

Should there be environmental financial guarantees in a form of Trust funds

**If yes:**

Should the contribution be annually

Should the contribution be once off

What quantum of contribution

Who should maintain the funds

What should happen to the funds at the end of operation

How should environmental obligations be treated in taxation

Is self policing an option as far as environmental users are concerned

Fiscal policy and mineral Taxation (Tax holiday – how long)

Please use the ‘drop down’ list to choose your answer

Would you prefer operating in a mining environment where there is:

Profit based taxation – inclusive of corporate income taxes, dividend taxes and additional profit taxes

Output based taxation – e.g. royalties usually related to the sales value of mining production

Input based taxation – There are levies on inputs to the mining process and includes sales transactions or withholding taxes, import duties on capital equipment or suppliers and labour and wage related tax payment

Should there be a specified tax holiday

General

Please fill in the blanks in your own words

What do you think causes uncertainty in the South African Minerals sector

Why do you think there is lack of appetite for beneficiation in South Africa

Is the Mineral and Petroleum Resources Development Act (MPRDA) an impediment to the mining sector

Is the lack of capacity in the Department of Mineral Resources (DMR) an impediment

Is the social and labour plan a good tool in redressing some of the socio-economic ills of the past

What else should be done to ensure that all stakeholders benefit from minerals endowment of South Africa

Bottom of Form

Thank you for answering the questionnaire if you are interested in receiving feedback please forward your contact details when forwarding this form.

Top of Form

Bottom of Form

## APPENDIX I B (Questionnaire showing all questions and possible answers)

### The future appropriate and competitive mining policy of South Africa

<p><b>A. General information</b></p> <p>1. Company or organisation type</p> <ul style="list-style-type: none"><li>- Exploration</li><li>- Mining</li><li>- Smelter</li><li>- Beneficiator</li><li>- Regulatory</li><li>- Other</li></ul>
<p>2. Company ownership</p> <ul style="list-style-type: none"><li>- Listed</li><li>- Private but not listed</li><li>- State owned</li><li>- Other</li></ul>
<p>3. Number of employees</p> <ul style="list-style-type: none"><li>- Less than 10</li><li>- Between 11 and 100</li><li>- 100-1000</li><li>- 1000-2000</li><li>- Above 2000</li></ul>
<p>4. Your position in the company</p> <ul style="list-style-type: none"><li>- Senior management</li><li>- Middle management</li><li>- Senior supervisory</li><li>- Supervisory</li><li>- Professional</li></ul>
<p><b>B. The role of the State in Ownership</b></p> <p>Listed below are the different roles the state can play in the mining sector, please indicate to what degree you agree/disagree with the statements.</p> <ul style="list-style-type: none"><li>● The state should be the only custodian of Mineral rights<ul style="list-style-type: none"><li>- Strongly disagree</li><li>- Disagree</li><li>- Neutral</li><li>- Agree</li><li>- Strongly agree</li></ul></li></ul>
<ul style="list-style-type: none"><li>● The state should enforce mandatory joint venturing<ul style="list-style-type: none"><li>- Strongly disagree</li><li>- Disagree</li><li>- Neutral</li><li>- Agree</li><li>- Strongly agree</li></ul></li></ul>

<ul style="list-style-type: none"> <li>● Private companies should have joint ventures with state owned entities as the only way to acquire access to mineral deposits <ul style="list-style-type: none"> <li>- Strongly disagree</li> <li>- Disagree</li> <li>- Neutral</li> <li>- Agree</li> <li>- Strongly agree</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● The state or state enterprises should have preferential rights to certain minerals or areas <ul style="list-style-type: none"> <li>- Strongly disagree</li> <li>- Disagree</li> <li>- Neutral</li> <li>- Agree</li> <li>- Strongly agree</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● The state should allow private parties to obtain rights to explore or exploit minerals in competition with state bodies <ul style="list-style-type: none"> <li>- Strongly disagree</li> <li>- Disagree</li> <li>- Neutral</li> <li>- Agree</li> <li>- Strongly agree</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● The state should remain as an operator in the mining sector through ownership of a mining enterprise <ul style="list-style-type: none"> <li>- Strongly disagree</li> <li>- Disagree</li> <li>- Neutral</li> <li>- Agree</li> <li>- Strongly agree</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● The state owned mining enterprises should be treated in the same manner as any other mining rights holder under the law and must compete equally <ul style="list-style-type: none"> <li>- Strongly disagree</li> <li>- Disagree</li> <li>- Neutral</li> <li>- Agree</li> <li>- Strongly agree</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● All state owned enterprises in the minerals sector should be privatized <ul style="list-style-type: none"> <li>- Strongly disagree</li> <li>- Disagree</li> <li>- Neutral</li> <li>- Agree</li> <li>- Strongly agree</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● The state should have no equity participation in the minerals sector <ul style="list-style-type: none"> <li>- Strongly disagree</li> <li>- Disagree</li> <li>- Neutral</li> <li>- Agree</li> <li>- Strongly agree</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>• Government should sign mining agreements with each company operating in its state to allow for individual flexibility. <ul style="list-style-type: none"> <li>- Strongly disagree</li> <li>- Disagree</li> <li>- Neutral</li> <li>- Agree</li> <li>- Strongly agree</li> </ul> </li> </ul>
<p><b>C. Granting of rights</b></p> <ul style="list-style-type: none"> <li>• Who should be delegated with the authority of granting mineral rights <ul style="list-style-type: none"> <li>- Implementing executive authority (e.g. the DMR)</li> <li>- Government officials with clear guidelines / with no discretion</li> <li>- A special designated agency</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Do you believe that the state should have a mining code/law and regulations as the government principal policy vehicle regarding exploitation of the country's natural resources <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• If yes above what do you think should be contained in the mining code</li> </ul>
<ul style="list-style-type: none"> <li>• If no above how should the mineral resources exploitation be regulated</li> </ul>
<ul style="list-style-type: none"> <li>• Should the state maintain an open registry i.e. providing access to information about which areas are available, taken and which applications are pending <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Grant rights on a first come first served basis/ some non-discretionary basis <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Allow transfers of prospecting rights to 3rd parties <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Allow for an open tender for available rights <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Allow for a close bidding process for available rights <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Providing rights through standardized agreements or contracts/ permits/ leases <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Is it necessary to submit technical information with the applications of prospecting and mining rights submission <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Is it necessary to submit financial information with exploration and mining rights submission <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>• Does submission of both technical and financial information tend to favour majors and discriminate against junior mining companies and HDSA's companies <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Should transferability of prospecting and mining rights be not restricted in order to encourage active exploration programmes <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• First come first serve principle with no restriction at all <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Should RSA enforce/encourage relinquishment of rights if not used at a forced rate e.g. 1st year 25%, 2nd year 50% etc. or use escalation in the annual renewal for exploration areas <ul style="list-style-type: none"> <li>- Enforce</li> <li>- Encourage</li> <li>- Use escalation in the annual renewal for changed exploration</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Allow transfer of exploration right to 3rd parties or sell <ul style="list-style-type: none"> <li>- Transfer</li> <li>- Sell</li> </ul> </li> </ul>
<p><b>D. Security of Tenure</b></p> <ul style="list-style-type: none"> <li>• What is a sufficient period within which to carry prospect before applying for a renewal <ul style="list-style-type: none"> <li>- 2 years</li> <li>- 3years</li> <li>- 5years</li> <li>- &gt;5years</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Do you prefer automatic right to mine what is discovered subject to compliance with applicable regulations <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• As a mining company as far as the security of tenure is concerned what would you prefer for prospecting <ul style="list-style-type: none"> <li>- Open ended</li> <li>- Long duration exploration term with a minimum work commitment</li> <li>- Escalating annual work commitment</li> <li>- Land rental escalating</li> <li>- Approved work plan</li> <li>- Extension to defined exploration tenure where there is an extended period of tenure. This can be automatic/ discretionary extension</li> <li>- A dual approval of the two above</li> </ul> </li> </ul>
<p><b>E. As a prospecting right holder</b></p> <ul style="list-style-type: none"> <li>• Is it good to have an exclusive right to obtain a mining right within your exploration area without demonstrating any further commercial, technical or financial ability to develop it or you should also have the following: <ul style="list-style-type: none"> <li>- Approved EIA/rehabilitation plan</li> <li>- Mining rights be truly transferable to 3rd parties</li> <li>- No automatic progression guaranteed</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>• How should the mining right of coexisting minerals be treated <ul style="list-style-type: none"> <li>- Each mineral be treated as a separate right</li> <li>- The right be treated as one for both minerals</li> </ul> </li> </ul>
<p><b>F. Fees payable</b></p> <ul style="list-style-type: none"> <li>• Should there be fees payable depending on the size of the prospecting/mining area <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Should these be escalated during subsequent years of exploration and/ mining. <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Should fees be set at a minimum amount to be spent by a company allocated an area for prospecting or mining that escalates over time <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Cancellation of rights – what mechanism should be put in place in order to have a clear and transparent process in the cancellation of right? e.g. open to arbitration process recourse to local judicial process, international arbitration process.</li> </ul>
<p><b>G. Participation of Nationals/ Natives/ Aborigines/ HDSA ‘s</b></p> <p>In your own words give an indication of your preferences</p> <ul style="list-style-type: none"> <li>• Your attitude towards employment of locals and training them to achieve required levels for operations.</li> </ul>
<ul style="list-style-type: none"> <li>• Developing local entrepreneurs who can supply the mining activities in the area</li> </ul>
<ul style="list-style-type: none"> <li>• Empower locals to participate in mineral beneficiation/increase value addition</li> </ul>
<ul style="list-style-type: none"> <li>• Encouraging for the processing of minerals</li> </ul>
<ul style="list-style-type: none"> <li>• Provision of service not directly related to mining e.g. medical care and educational for local people</li> </ul>
<ul style="list-style-type: none"> <li>• Protection of rights of locals</li> </ul>
<ul style="list-style-type: none"> <li>• Development of local infrastructure</li> </ul>
<ul style="list-style-type: none"> <li>• Should the above be tied to time <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• How else could HDSA participate in the sector</li> </ul>
<p><b>H. Environment</b></p> <ul style="list-style-type: none"> <li>• Do you prefer a central approach i.e. only one ministry responsible for all mining issues and environmental issues pertaining to mining only <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>• Do you prefer a sectorial approach where responsibilities for the evaluation, approval and monitoring for EIA and mitigation plans goes to the Sector ministry <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Do you prefer separation between mineral licensing process from Environmental permitting regime <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Where they're separated should mineral licensing be guaranteed first <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Where they're separated should Environment permitting regime be first <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Should all environmental considerations pertaining to mining be conducted by a single environmental ministry be done in a piece meal <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Should environmental considerations be done at once for all mining work to be undertaken. <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Should there be environmental financial guarantees in a form of Trust funds <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<p><b>If yes:</b></p> <ul style="list-style-type: none"> <li>• Should the contribution be annually <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Should the contribution be once off <ul style="list-style-type: none"> <li>- Yes</li> <li>- No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• What quantum of contribution <ul style="list-style-type: none"> <li>- 30%</li> <li>- 50% to 70%</li> <li>- 100%</li> <li>- above 100%</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Who should maintain the funds <ul style="list-style-type: none"> <li>- Mining house</li> <li>- Government</li> <li>- Special agency</li> <li>- Private Banks</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• What should happen to the funds at the end of operation</li> </ul>
<ul style="list-style-type: none"> <li>• How should environmental obligations be treated in taxation</li> </ul>
<ul style="list-style-type: none"> <li>• Is self-policing an option as far as environmental users are concerned</li> </ul>

<p><b>I. Fiscal policy and mineral Taxation (Tax holiday – how long)</b></p> <p>Would you prefer operating in a mining environment where there is:</p> <ul style="list-style-type: none"> <li>• Profit based taxation – inclusive of corporate income taxes, dividend taxes and additional profit taxes <ul style="list-style-type: none"> <li>– Yes</li> <li>– No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Output based taxation – e.g. royalties usually related to the sales value of mining production <ul style="list-style-type: none"> <li>– Yes</li> <li>– No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Input based taxation – There are levies on inputs to the mining process and includes sales transactions or withholding taxes, import duties on capital equipment or suppliers and labour and wage related tax payment <ul style="list-style-type: none"> <li>– Yes</li> <li>– No</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Should there be a specified tax holiday <ul style="list-style-type: none"> <li>– Yes</li> <li>– No</li> </ul> </li> </ul>
<p><b>J. General</b></p> <ul style="list-style-type: none"> <li>• What do you think causes uncertainty in the South African Minerals sector</li> </ul>
<ul style="list-style-type: none"> <li>• Why do you think there is lack of appetite for beneficiation in South Africa</li> </ul>
<ul style="list-style-type: none"> <li>• Is the Mineral and Petroleum Resources Development Act (MPRDA) an impediment to the mining sector</li> </ul>
<ul style="list-style-type: none"> <li>• Is the lack of capacity in the Department of Mineral Resources (DMR) an impediment</li> </ul>
<ul style="list-style-type: none"> <li>• Is the social and labour plan a good tool in redressing some of the socio-economic ills of the past</li> </ul>
<ul style="list-style-type: none"> <li>• What else should be done to ensure that all stakeholders benefit from minerals endowment of South Africa</li> </ul>

**APPENDIX II (Survey results)**

**The future appropriate and competitive mining policy of South Africa**

<b>K. General information</b>	<b>Results</b>
5. Company or organisation type	
– Exploration	10%
– Mining	60%
– Smelter	0%
– Beneficiator	0%
– Regulatory	0%
– Other	30%
6. Company ownership	
– Listed	30%
– Private but not listed	60%
– State owned	0%
– Other	10%
7. Number of employees	
– Less than 10	20%
– Between 11 and 100	20%
– 100-1000	10%
– 1000-2000	10%
– Above 2000	40%

8. Your position in the company	Results
– Senior management & Executives	90%
– Middle management	0%
– Senior supervisory	0%
– Supervisory	10%
– Professional	0%
<b>L. The role of the State in Ownership</b>	
Listed below are the different roles the state can play in the mining sector, please indicate to what degree you agree/disagree with the statements.	
● The state should be the only custodian of Mineral rights	
– Strongly disagree	20%
– Disagree	20%
– Neutral	10%
– Agree	20%
– Strongly agree	30%
● The state should enforce mandatory joint venturing	
– Strongly disagree	0%
– Disagree	20%
– Neutral	10%
– Agree	40%
– Strongly agree	30%

	<b>Results</b>
<ul style="list-style-type: none"> <li>● Private companies should have joint ventures with state owned entities as the only way to acquire access to mineral deposits</li> </ul>	
<ul style="list-style-type: none"> <li>- Strongly disagree</li> </ul>	10%
<ul style="list-style-type: none"> <li>- Disagree</li> </ul>	70%
<ul style="list-style-type: none"> <li>- Neutral</li> </ul>	0%
<ul style="list-style-type: none"> <li>- Agree</li> </ul>	10%
<ul style="list-style-type: none"> <li>- Strongly agree</li> </ul>	10%
<ul style="list-style-type: none"> <li>● The state or state enterprises should have preferential rights to certain minerals or areas</li> </ul>	
<ul style="list-style-type: none"> <li>- Strongly disagree</li> </ul>	10%
<ul style="list-style-type: none"> <li>- Disagree</li> </ul>	40%
<ul style="list-style-type: none"> <li>- Neutral</li> </ul>	20%
<ul style="list-style-type: none"> <li>- Agree</li> </ul>	10%
<ul style="list-style-type: none"> <li>- Strongly agree</li> </ul>	20%
<ul style="list-style-type: none"> <li>● The state should allow private parties to obtain rights to explore or exploit minerals in competition with state bodies</li> </ul>	
<ul style="list-style-type: none"> <li>- Strongly disagree</li> </ul>	0%
<ul style="list-style-type: none"> <li>- Disagree</li> </ul>	0%
<ul style="list-style-type: none"> <li>- Neutral</li> </ul>	30%
<ul style="list-style-type: none"> <li>- Agree</li> </ul>	0%
<ul style="list-style-type: none"> <li>- Strongly agree</li> </ul>	70%

	<b>Results</b>
<ul style="list-style-type: none"> <li>● The state should remain as an operator in the mining sector through ownership of a mining enterprise</li> </ul>	
<ul style="list-style-type: none"> <li>– Strongly disagree</li> </ul>	0%
<ul style="list-style-type: none"> <li>– Disagree</li> </ul>	40%
<ul style="list-style-type: none"> <li>– Neutral</li> </ul>	10%
<ul style="list-style-type: none"> <li>– Agree</li> </ul>	10%
<ul style="list-style-type: none"> <li>– Strongly agree</li> </ul>	40%
<ul style="list-style-type: none"> <li>● The state owned mining enterprises should be treated in the same manner as any other mining rights holder under the law and must compete equally</li> </ul>	
<ul style="list-style-type: none"> <li>– Strongly disagree</li> </ul>	0%
<ul style="list-style-type: none"> <li>– Disagree</li> </ul>	40%
<ul style="list-style-type: none"> <li>– Neutral</li> </ul>	10%
<ul style="list-style-type: none"> <li>– Agree</li> </ul>	40%
<ul style="list-style-type: none"> <li>– Strongly agree</li> </ul>	10%
<ul style="list-style-type: none"> <li>● All state owned enterprises in the minerals sector should be privatized</li> </ul>	
<ul style="list-style-type: none"> <li>– Strongly disagree</li> </ul>	30%
<ul style="list-style-type: none"> <li>– Disagree</li> </ul>	30%
<ul style="list-style-type: none"> <li>– Neutral</li> </ul>	10%
<ul style="list-style-type: none"> <li>– Agree</li> </ul>	20%
<ul style="list-style-type: none"> <li>– Strongly agree</li> </ul>	10%

<ul style="list-style-type: none"> <li>• The state should have no equity participation in the minerals sector</li> </ul>	<b>Results</b>
<ul style="list-style-type: none"> <li>– Strongly disagree</li> </ul>	30%
<ul style="list-style-type: none"> <li>– Disagree</li> </ul>	50%
<ul style="list-style-type: none"> <li>– Neutral</li> </ul>	0%
<ul style="list-style-type: none"> <li>– Agree</li> </ul>	20%
<ul style="list-style-type: none"> <li>– Strongly agree</li> </ul>	0%
<ul style="list-style-type: none"> <li>• Government should sign mining agreements with each company operating in its state to allow for individual flexibility.</li> </ul>	
<ul style="list-style-type: none"> <li>– Strongly disagree</li> </ul>	20%
<ul style="list-style-type: none"> <li>– Disagree</li> </ul>	20%
<ul style="list-style-type: none"> <li>– Neutral</li> </ul>	30%
<ul style="list-style-type: none"> <li>– Agree</li> </ul>	20%
<ul style="list-style-type: none"> <li>– Strongly agree</li> </ul>	10%
<b>M. Granting of rights</b>	
<ul style="list-style-type: none"> <li>• Who should be delegated with the authority of granting mineral rights</li> </ul>	
<ul style="list-style-type: none"> <li>– Implementing executive authority (e.g. the DMR)</li> </ul>	60%
<ul style="list-style-type: none"> <li>– Government officials with clear guidelines / with no discretion</li> </ul>	10%
<ul style="list-style-type: none"> <li>– A special designated agency</li> </ul>	30%
<ul style="list-style-type: none"> <li>• Do you believe that the state should have a mining code/law and regulations as the government principal policy vehicle regarding exploitation of the country's natural resources</li> </ul>	
<ul style="list-style-type: none"> <li>– Yes</li> </ul>	100%
<ul style="list-style-type: none"> <li>– No</li> </ul>	0%

• If yes above what do you think should be contained in the mining code	<b>Results</b>
– Incentive for beneficiation foster competitive beneficiation preferential access to infrastructure	
– Ban an export of raw; state have equity, SMME promotion; clear scope of the law	
– Support to national priorities, clear guidelines also on rehabilitation; clear codes for BEE; Incentives for beneficiation, foster competitive beneficiation	
– Preferential access to infrastructure	
• If no above how should the mineral resources exploitation be regulated	N/A
• Should the state maintain an open registry i.e. providing access to information about which areas are available, taken and which applications are pending	
– Yes	90%
– No	10%
• Grant rights on a first come first served basis/ some non-discretionary basis	
– Yes	90%
– No	10%
• Allow transfers of prospecting rights to 3rd parties	
– Yes	70%
– No	20%
– Unknown	10%
• Allow for an open tender for available rights	
– Yes	60%
– No	40%

	<b>Results</b>
<ul style="list-style-type: none"> <li>• Allow for a close bidding process for available rights <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	20%
<ul style="list-style-type: none"> <li>- No</li> </ul>	60%
<ul style="list-style-type: none"> <li>- Unknown</li> </ul>	20%
<ul style="list-style-type: none"> <li>• Providing rights through standardized agreements or contracts/ permits/ leases <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	90%
<ul style="list-style-type: none"> <li>- No</li> </ul>	10%
<ul style="list-style-type: none"> <li>• Is it necessary to submit technical information with the applications of prospecting and mining rights submission <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	90%
<ul style="list-style-type: none"> <li>- No</li> </ul>	10%
<ul style="list-style-type: none"> <li>• Is it necessary to submit financial information with exploration and mining rights submission <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	90%
<ul style="list-style-type: none"> <li>- No</li> </ul>	10%
<ul style="list-style-type: none"> <li>• Does submission of both technical and financial information tend to favour majors and discriminate against junior mining companies and HDSA's companies <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	80%
<ul style="list-style-type: none"> <li>- No</li> </ul>	20%
<ul style="list-style-type: none"> <li>• Should transferability of prospecting and mining rights be not restricted in order to encourage active exploration programmes <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	50%
<ul style="list-style-type: none"> <li>- No</li> </ul>	50%
<ul style="list-style-type: none"> <li>• First come first serve principle with no restriction at all <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	50%
<ul style="list-style-type: none"> <li>- No</li> </ul>	50%

<ul style="list-style-type: none"> <li>• Should RSA enforce/encourage relinquishment of rights if not used at a forced rate e.g. 1st year 25%, 2nd year 50% etc. or use escalation in the annual renewal for exploration areas</li> </ul>	<b>Results</b>
<ul style="list-style-type: none"> <li>– Enforce</li> </ul>	80%
<ul style="list-style-type: none"> <li>– Encourage</li> </ul>	20%
<ul style="list-style-type: none"> <li>– Use escalation in the annual renewal for changed exploration</li> </ul>	0%
<ul style="list-style-type: none"> <li>• Allow transfer of exploration right to 3rd parties or sell</li> </ul>	
<ul style="list-style-type: none"> <li>– Transfer</li> </ul>	20%
<ul style="list-style-type: none"> <li>– Sell</li> </ul>	20%
<ul style="list-style-type: none"> <li>– Unknown</li> </ul>	60%
<b>N. Security of Tenure</b>	
<ul style="list-style-type: none"> <li>• What is a sufficient period within which to carry prospect before applying for a renewal</li> </ul>	
<ul style="list-style-type: none"> <li>– 2 years</li> </ul>	20%
<ul style="list-style-type: none"> <li>– 3years</li> </ul>	60%
<ul style="list-style-type: none"> <li>– 5years</li> </ul>	20%
<ul style="list-style-type: none"> <li>– &gt;5years</li> </ul>	0%
<ul style="list-style-type: none"> <li>• Do you prefer automatic right to mine what is discovered subject to compliance with applicable regulations</li> </ul>	
<ul style="list-style-type: none"> <li>– Yes</li> </ul>	70%
<ul style="list-style-type: none"> <li>– No</li> </ul>	30%

	<b>Results</b>
<ul style="list-style-type: none"> <li>● As a mining company as far as the security of tenure is concerned what would you prefer for prospecting</li> </ul>	
<ul style="list-style-type: none"> <li>- Open ended</li> </ul>	0%
<ul style="list-style-type: none"> <li>- Long duration exploration term with a minimum work commitment</li> </ul>	10%
<ul style="list-style-type: none"> <li>- Escalating annual work commitment</li> </ul>	20%
<ul style="list-style-type: none"> <li>- Land rental escalating</li> </ul>	0%
<ul style="list-style-type: none"> <li>- Approved work plan</li> </ul>	20%
<ul style="list-style-type: none"> <li>- Extension to defined exploration tenure where there is an extended period of tenure. This can be automatic/ discretionary extension</li> </ul>	30%
<ul style="list-style-type: none"> <li>- A dual approval of the two above</li> </ul>	20%
<p><b>As a prospecting right holder</b></p>	
<ul style="list-style-type: none"> <li>● Is it good to have an exclusive right to obtain a mining right within your exploration area without demonstrating any further commercial, technical or financial ability to develop it or you should also have the following:</li> </ul>	
<ul style="list-style-type: none"> <li>- Approved EIA/rehabilitation plan</li> </ul>	60%
<ul style="list-style-type: none"> <li>- Mining rights be truly transferable to 3rd parties</li> </ul>	20%
<ul style="list-style-type: none"> <li>- No automatic progression guaranteed</li> </ul>	20%
<ul style="list-style-type: none"> <li>● How should the mining right of coexisting minerals be treated</li> </ul>	
<ul style="list-style-type: none"> <li>- Each mineral be treated as a separate right</li> </ul>	50%
<ul style="list-style-type: none"> <li>- The right be treated as one for both minerals</li> </ul>	50%
<p><b>O. Fees payable</b></p>	
<ul style="list-style-type: none"> <li>● Should there be fees payable depending on the size of the prospecting/mining area</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes</li> </ul>	100%
<ul style="list-style-type: none"> <li>- No</li> </ul>	0%
<ul style="list-style-type: none"> <li>● Should these be escalated during subsequent years of exploration and/ mining.</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes</li> </ul>	70%
<ul style="list-style-type: none"> <li>- No</li> </ul>	30%

	<b>Results</b>
<ul style="list-style-type: none"> <li>● Should fees be set at a minimum amount to be spent by a company allocated an area for prospecting or mining that escalates over time <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	20%
<ul style="list-style-type: none"> <li>- No</li> </ul>	20%
<ul style="list-style-type: none"> <li>- Unknown</li> </ul>	60%
<ul style="list-style-type: none"> <li>● Cancellation of rights – what mechanism should be put in place in order to have a clear and transparent process in the cancellation of right? e.g. open to arbitration process recourse to local judicial process, international arbitration process. <ul style="list-style-type: none"> <li>- Fair as per constitution open to arbitration</li> <li>- Clarity and non- flexibility of cancellation criteria</li> <li>- Should be clear guidelines/milestones arbitration; discretion of state</li> </ul> </li> </ul>	
<p><b>P. Participation of Nationals/ Natives/ Aborigines/ HDSA ‘s</b></p> <p>In your own words give an indication of your preferences</p> <ul style="list-style-type: none"> <li>● Your attitude towards employment of locals and training them to achieve required levels for operations. <ul style="list-style-type: none"> <li>- Train and employ depending on their skills</li> <li>- Train those that are trainable</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>● Developing local entrepreneurs who can supply the mining activities in the area <ul style="list-style-type: none"> <li>- Set a percentage</li> <li>- Should be nurtured but not tenderpreneurs</li> <li>- Can assist in job creation</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>● Empower locals to participate in mineral beneficiation/increase value addition <ul style="list-style-type: none"> <li>- Set a target percentage</li> <li>- Yes if they have skills</li> <li>- Compulsory</li> <li>- Yes depending on commodities</li> </ul> </li> </ul>	

<ul style="list-style-type: none"> <li>• Encouraging for the processing of minerals</li> </ul>	<b>Results</b>	
<ul style="list-style-type: none"> <li>– Yes if viable need incentives</li> </ul>		
<ul style="list-style-type: none"> <li>– Yes all should process minerals</li> </ul>		
<ul style="list-style-type: none"> <li>– A must yes if we can be competitive; yes if it would help in combating ghost towns</li> </ul>		
<ul style="list-style-type: none"> <li>– Yes subject to competitiveness</li> </ul>		
<ul style="list-style-type: none"> <li>• Provision of service not directly related to mining e.g. medical care and educational for local people</li> </ul>	<b>Results</b>	
<ul style="list-style-type: none"> <li>– Set a percentage target</li> </ul>		
<ul style="list-style-type: none"> <li>– Yes there should be symbiotic relationship</li> </ul>		
<ul style="list-style-type: none"> <li>– Outsource to create jobs</li> </ul>		
<ul style="list-style-type: none"> <li>– JV between state and mining company</li> </ul>		
<ul style="list-style-type: none"> <li>• Protection of rights of locals</li> </ul>		
<ul style="list-style-type: none"> <li>– Yes if skills available</li> </ul>		
<ul style="list-style-type: none"> <li>– State to create agency to educate locals on rights</li> </ul>		
<ul style="list-style-type: none"> <li>– Yes train the trainable locals</li> </ul>		
<ul style="list-style-type: none"> <li>• Development of local infrastructure</li> </ul>		
<ul style="list-style-type: none"> <li>– Yes set a target percentage</li> </ul>		
<ul style="list-style-type: none"> <li>– Private sector should contribute</li> </ul>		
<ul style="list-style-type: none"> <li>– Yes education and training compulsory</li> </ul>		
<ul style="list-style-type: none"> <li>– Responsibility of the state</li> </ul>		
<ul style="list-style-type: none"> <li>• Should the above be tied to time</li> </ul>		
<ul style="list-style-type: none"> <li>– Yes</li> </ul>		90%
<ul style="list-style-type: none"> <li>– No</li> </ul>		10%

<ul style="list-style-type: none"> <li>• How else could HDSA participate in the sector</li> </ul>	<b>Results</b>
<ul style="list-style-type: none"> <li>- Improving themselves</li> </ul>	
<ul style="list-style-type: none"> <li>- Not expect hand outs</li> </ul>	
<ul style="list-style-type: none"> <li>- Enterprise development and once empowered always empowered</li> </ul>	
<ul style="list-style-type: none"> <li>- Community trust</li> </ul>	
<ul style="list-style-type: none"> <li>- Reserve shares for HDSA only</li> </ul>	
<ul style="list-style-type: none"> <li>- Be operational increase level of entrepreneurship in HDSA's</li> </ul>	
<ul style="list-style-type: none"> <li>- Through apprenticeship programs</li> </ul>	
<ul style="list-style-type: none"> <li>- Revision of empowerment laws that have negative effect to empowerment</li> </ul>	
<ul style="list-style-type: none"> <li>- By shareholding for the development of the area</li> </ul>	
<ul style="list-style-type: none"> <li>- Development of spatial development framework</li> </ul>	
<b>Q. Environment</b>	
<ul style="list-style-type: none"> <li>• Do you prefer a central approach i.e. only one ministry responsible for all mining issues and environmental issues pertaining to mining only</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes</li> </ul>	90%
<ul style="list-style-type: none"> <li>- No</li> </ul>	10%
<ul style="list-style-type: none"> <li>• Do you prefer a sectorial approach where responsibilities for the evaluation, approval and monitoring for EIA and mitigation plans goes to the Sector ministry</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes</li> </ul>	40%
<ul style="list-style-type: none"> <li>- No</li> </ul>	60%
<ul style="list-style-type: none"> <li>• Do you prefer separation between mineral licensing process from Environmental permitting regime</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes</li> </ul>	20%
<ul style="list-style-type: none"> <li>- No</li> </ul>	80%

	<b>Results</b>
<ul style="list-style-type: none"> <li>• Where they're separated should mineral licensing be guaranteed first</li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	80%
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- No</li> </ul> </li> </ul>	20%
<ul style="list-style-type: none"> <li>• Where they're separated should Environment permitting regime be first</li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	20%
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- No</li> </ul> </li> </ul>	80%
<ul style="list-style-type: none"> <li>• Should all environmental considerations pertaining to mining be conducted by a single environmental ministry be done in a piece meal</li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	40%
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- No</li> </ul> </li> </ul>	60%
<ul style="list-style-type: none"> <li>• Should environmental considerations be done at once for all mining work to be undertaken.</li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	70%
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- No</li> </ul> </li> </ul>	30%
<ul style="list-style-type: none"> <li>• Should there be environmental financial guarantees in a form of Trust funds</li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	100%
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- No</li> </ul> </li> </ul>	0%
<b>If yes:</b>	
<ul style="list-style-type: none"> <li>• Should the contribution be annually</li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	100%
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- No</li> </ul> </li> </ul>	0%
<ul style="list-style-type: none"> <li>• Should the contribution be once off</li> </ul>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- Yes</li> </ul> </li> </ul>	20%
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>- No</li> </ul> </li> </ul>	80%

<ul style="list-style-type: none"> <li>• What quantum of contribution</li> </ul>	<b>Results</b>
<ul style="list-style-type: none"> <li>- 30%</li> </ul>	80%
<ul style="list-style-type: none"> <li>- 50% to 70%</li> </ul>	10%
<ul style="list-style-type: none"> <li>- 100%</li> </ul>	0%
<ul style="list-style-type: none"> <li>- above 100%</li> </ul>	10%
<ul style="list-style-type: none"> <li>• Who should maintain the funds</li> </ul>	
<ul style="list-style-type: none"> <li>- Mining house</li> </ul>	10%
<ul style="list-style-type: none"> <li>- Government</li> </ul>	30%
<ul style="list-style-type: none"> <li>- Special agency</li> </ul>	20%
<ul style="list-style-type: none"> <li>- Private Banks</li> </ul>	40%
<ul style="list-style-type: none"> <li>• What should happen to the funds at the end of operation</li> </ul>	
<ul style="list-style-type: none"> <li>- Rehab and community development balance back to company</li> </ul>	
<ul style="list-style-type: none"> <li>- Refunded after rehabilitation</li> </ul>	
<ul style="list-style-type: none"> <li>- Kept by government for future rehabilitation</li> </ul>	
<ul style="list-style-type: none"> <li>- Returned to contributors</li> </ul>	
<ul style="list-style-type: none"> <li>- Reconciled to actual liability</li> </ul>	
<ul style="list-style-type: none"> <li>- Use it for rehab</li> </ul>	
<ul style="list-style-type: none"> <li>• How should environmental obligations be treated in taxation</li> </ul>	
<ul style="list-style-type: none"> <li>- Not linked</li> </ul>	
<ul style="list-style-type: none"> <li>- Tax incentive</li> </ul>	
<ul style="list-style-type: none"> <li>- Tax deductible</li> </ul>	
<ul style="list-style-type: none"> <li>- Must have a tax benefit</li> </ul>	
<ul style="list-style-type: none"> <li>- 10–15% revenue taxed for rehabilitation</li> </ul>	
<ul style="list-style-type: none"> <li>- Not taxed at all</li> </ul>	

<ul style="list-style-type: none"> <li>Is self-policing an option as far as environmental users are concerned</li> </ul>	Results
<ul style="list-style-type: none"> <li>– Yes with 3<sup>rd</sup> party monitoring</li> </ul>	
<ul style="list-style-type: none"> <li>– Yes</li> </ul>	
<ul style="list-style-type: none"> <li>– No open to abuse</li> </ul>	
<b>R. Fiscal policy and mineral Taxation (Tax holiday – how long)</b>	
Would you prefer operating in a mining environment where there is:	
<ul style="list-style-type: none"> <li>Profit based taxation – inclusive of corporate income taxes, dividend taxes and additional profit taxes</li> </ul>	
<ul style="list-style-type: none"> <li>– Yes</li> </ul>	90%
<ul style="list-style-type: none"> <li>– No</li> </ul>	10%
<ul style="list-style-type: none"> <li>Output based taxation – e.g. royalties usually related to the sales value of mining production</li> </ul>	
<ul style="list-style-type: none"> <li>– Yes</li> </ul>	20%
<ul style="list-style-type: none"> <li>– No</li> </ul>	80%
<ul style="list-style-type: none"> <li>Input based taxation – There are levies on inputs to the mining process and includes sales transactions or withholding taxes, import duties on capital equipment or suppliers and labour and wage related tax payment</li> </ul>	
<ul style="list-style-type: none"> <li>– Yes</li> </ul>	30%
<ul style="list-style-type: none"> <li>– No</li> </ul>	60%
<ul style="list-style-type: none"> <li>– Unknown</li> </ul>	10%
<ul style="list-style-type: none"> <li>Should there be a specified tax holiday</li> </ul>	
<ul style="list-style-type: none"> <li>– Yes</li> </ul>	70%
<ul style="list-style-type: none"> <li>– No</li> </ul>	20%
<ul style="list-style-type: none"> <li>– Unknown</li> </ul>	10%

<b>S. General</b>	<b>Results</b>
<ul style="list-style-type: none"> <li>• What do you think causes uncertainty in the South African Minerals sector</li> </ul>	
<ul style="list-style-type: none"> <li>– No clear permitting system uncertainty in legislatures</li> </ul>	
<ul style="list-style-type: none"> <li>– Never ending debates</li> </ul>	
<ul style="list-style-type: none"> <li>– Nationalisation</li> </ul>	
<ul style="list-style-type: none"> <li>– Length of time to improve</li> </ul>	
<ul style="list-style-type: none"> <li>– Labour unrest, infrastructure rail collapse, carbon taxes, wage inflation</li> </ul>	
<ul style="list-style-type: none"> <li>– Speculators, multinationals negative about transformation</li> </ul>	
<ul style="list-style-type: none"> <li>– Labour dynamics and policy interpretation</li> </ul>	
<ul style="list-style-type: none"> <li>– Flawed legislation opportunistic multi nationals ambiguity in legislation industries</li> </ul>	
<ul style="list-style-type: none"> <li>– Corruption at DMR</li> </ul>	
<ul style="list-style-type: none"> <li>– Inconsistence in applying the law</li> </ul>	
<ul style="list-style-type: none"> <li>• Why do you think there is lack of appetite for beneficiation in South Africa</li> </ul>	
<ul style="list-style-type: none"> <li>– Fair domestic industries</li> </ul>	
<ul style="list-style-type: none"> <li>– No clear rules</li> </ul>	
<ul style="list-style-type: none"> <li>– Lack of commitment and innovation</li> </ul>	
<ul style="list-style-type: none"> <li>– Labour unproductive huge Capex demand</li> </ul>	
<ul style="list-style-type: none"> <li>– Vested interest</li> </ul>	
<ul style="list-style-type: none"> <li>– Lack of electricity</li> </ul>	
<ul style="list-style-type: none"> <li>– Unfair labour practice</li> </ul>	
<ul style="list-style-type: none"> <li>– High return hence repatriate to abroad where tax is less</li> </ul>	
<ul style="list-style-type: none"> <li>– Overseas infrastructure PGM are well established</li> </ul>	
<ul style="list-style-type: none"> <li>– Not enough research done</li> </ul>	
<ul style="list-style-type: none"> <li>– Lack of skills base</li> </ul>	

	<b>Results</b>
<ul style="list-style-type: none"> <li>● Is the Mineral and Petroleum Resources Development Act (MPRDA) an impediment to the mining sector</li> </ul>	
<ul style="list-style-type: none"> <li>- To an extent allowing individuals to remain BEE's and also allowing new BEE's</li> </ul>	
<ul style="list-style-type: none"> <li>- No but can be improved</li> </ul>	
<ul style="list-style-type: none"> <li>- No</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes</li> </ul>	
<ul style="list-style-type: none"> <li>- No but sort ambiguity</li> </ul>	
<ul style="list-style-type: none"> <li>- No but sort ambiguity</li> </ul>	
<ul style="list-style-type: none"> <li>- Partly, as its not specific in part</li> </ul>	
<ul style="list-style-type: none"> <li>● Is the lack of capacity in the Department of Mineral Resources (DMR) an impediment</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes very serious</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes most employees never ever worked on the mines</li> </ul>	
<ul style="list-style-type: none"> <li>● Is the social and labour plan a good tool in redressing some of the socio-economic ills of the past</li> </ul>	
<ul style="list-style-type: none"> <li>- Not good enough look into industrial projects</li> </ul>	
<ul style="list-style-type: none"> <li>- Good but implementation</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes should be transparent</li> </ul>	
<ul style="list-style-type: none"> <li>- Yes but too discretionary to officials</li> </ul>	
<ul style="list-style-type: none"> <li>- Not sure</li> </ul>	
<ul style="list-style-type: none"> <li>- In theory yes</li> </ul>	
<ul style="list-style-type: none"> <li>- Not clear as to what investment should be put</li> </ul>	
<ul style="list-style-type: none"> <li>- Intent good but practical problem with municipalities</li> </ul>	
<ul style="list-style-type: none"> <li>- Traditional communities not organized</li> </ul>	

<ul style="list-style-type: none"> <li>• What else should be done to ensure that all stakeholders benefit from minerals endowment of South Africa</li> </ul>	<b>Results</b>
<ul style="list-style-type: none"> <li>- First come first served no favours</li> </ul>	
<ul style="list-style-type: none"> <li>- Enrichment of individuals discouraged</li> </ul>	
<ul style="list-style-type: none"> <li>- Once empowered already be introduced</li> </ul>	
<ul style="list-style-type: none"> <li>- Proactive engagement by DMR</li> </ul>	
<ul style="list-style-type: none"> <li>- Full enterprise with set benefits e.g. 10% going to community Trust based on positive cash flow not profit</li> </ul>	
<ul style="list-style-type: none"> <li>- Enforce compliance especially on labour plans</li> </ul>	