

Global Mining Guide - South Africa

Global Mining Guide

Contents

Overview	3
Summary	3
Legal framework for mining.....	4
Restrictions on foreign investment	5
Government or local participation requirements	7
Land tenure and priority	13
Indigenous or local community rights	13
Environmental protection and rehabilitation obligations.....	15
Exploration licenses.....	17
Holding tenements.....	21
Development/production tenements.....	21
Assignment of and security over tenements.....	24
Royalties.....	25
Mineral reporting and classification	26
Other key issues.....	26
Useful websites	30

Overview

Law - Mixed legal system

Member of New York Convention - Yes

Foreign investment regulation - Yes

Local party ownership requirement - Yes

Indigenous and local community rights - Yes

Land tenure - Mining rights are separate from surface and/or land rights

Environmental protection regulation - High

Rehabilitation bonds or guarantees - Yes

Exploration license - Typically three years with one extension of a further three years

Mining license - Typically 30 years with one extension of a further 30 years

Able to use tenement as security - Yes

Royalty payable to government - Yes

Classification system used - SAMREC and SAMVAL

Summary

Mining remains an important sector and major contributor to economic activity in South Africa. Despite labor unrest in the mining industry, it still remains one of South Africa's largest employers. The Mineral and Petroleum Resources Development Act 28 of 2002 ("**MPRDA**") came into effect in 2004. The MPRDA treats the state as the custodian of the nation's mineral and petroleum resources. The legislative framework supporting the MPRDA, which includes the environmental framework, creates a licensing regime which allows for mineral and petroleum exploitation subject to national priorities, underpinned by the Constitution. The MPRDA thus specifies the role the mining sector has to play in transforming the South African economic landscape by ensuring that historically disadvantaged South Africans and/or persons (HDSAs or HDPs) are included in the mainstream of

the South African economy. Amendments to the MPRDA have been enacted to clarify the relationship between regulation of mineral exploitation and broader sustainable objectives. The 2013 Amendment Bill, which is not in force and which has been published in various amended forms, seeks to refine this relationship further.

The Broad-Based Socio Economic Empowerment Charter for the South African Mining and Minerals Industry ("**Mining Charter**") has been developed to regulate broad-based black economic empowerment (B-BBEE) and economic transformation in the sector. With the advent of the Mining Charter, the ownership and control of mining companies by HDSAs, community participation/upliftment and local beneficiation have become areas of focus in the granting and maintenance of mining and/or prospecting rights.

Applicants for a mining or prospecting right must apply in the prescribed manner for such a right in compliance with the requirements of the MPRDA. The MPRDA also regulates the transfer of prospecting or mining rights and, in certain instances, the transfer of interests held in (corporate) holders of prospecting or mining rights. Mining is subject to an array of environmental, labor and health & safety laws and regulations, which are administered by various state departments such as the Department of Mineral Resources (DMR), the Department of Water Affairs (DWA), the Department of Environmental Affairs (DEA) and the Department of Labor.

Legal framework for mining

South Africa has a mixed legal system, drawing on Anglo- and Roman Dutch Law. South African common law, as well as statute, is subject to the Constitution of the Republic of South Africa 1996 ("**Constitution**") which enshrines civil as well as socio-economic rights. The principle of co-operative government means that, while mining regulation is nationally determined, permits and licenses are, in practice, granted by one of the nine provincial DMRs.

The primary legislation relevant to the mining industry are:

- a. MPRDA
- b. Mining Charter of 2018 (as promulgated on 27 September 2018 and amended on 19 December 2018)
- c. Mine Health and Safety Act, 29 of 1996 ("**MHSA**")
- d. National Environmental Management Act, 107 of 1998 ("**NEMA**")
- e. Mining Titles Registration Act, 16 of 1967;

- f. Mining and Petroleum Resources Royalty Act, 28 of 2008;
- g. Mining and Petroleum Resources Royalty (Administration) Act, 29 of 2008;
- h. Geoscience Act, 100 of 1993;
- i. Precious Metals Act, 37 of 2005;
- j. Diamonds Act, 56 of 1986; and
- k. National Water Act, 38 of 1996 ("**NWA**").

On 1 May 2004, the MPRDA became effective. The result was a shift from a model of private ownership of un-extracted minerals to a regime which recognizes mineral resources prior to their extraction as the common heritage of the people of South Africa. As such, the state has become the custodian of mineral resources with the authority to grant successful applicants prospecting and mining rights (dealt with below as "exploration" and "development/production tenements" respectively). For their duration, prospecting and mining rights may be treated as property which may be ceded, encumbered and used as security. Mineral resources themselves, however, are only capable of being treated and valued as private property once extracted.

While the MPRDA regulates both the mining of mineral resources as well as oil and gas exploitation, the rights are distinct. This chapter considers only those rights pertaining to the prospecting and mining of minerals, as governed by Sections 17 to 23 of the MPRDA.

The Mineral and Petroleum Resources Development Amendment Act, 49 of 2008 ("**Amendment Act**"), published on 21 April 2009, came into effect progressively from 7 June 2013. The Amendment Act altered the administration and regulation of environmental obligations in the mining industry and ensured synthesis with the provisions of the NEMA. Environmental obligations are now regulated by the NEMA, although the necessary authorizations remain administered by the DMR (as discussed below).

A further amendment bill was introduced into legislature on 31 May 2013 ("**2013 Amendment Bill**").

The Minister of Mineral Resources indicated during the course of 2018 that the government is considering the withdrawal of the 2013 Amendment Bill, but this process has not been finalized and remains uncertain.

Restrictions on foreign investment

South Africa has enormous potential as an investment destination, offering a unique combination of a highly developed, first-world economic infrastructure within an emerging market economy.

While foreign investors can freely invest in South Africa, flow of funds is subject to exchange control regulation under the authority of the South African Reserve Bank (SARB). Regulation 14 of the Exchange Control Regulations prohibits the issue or transfer of shares by a South African resident to a non-resident without prior approval from a dealer in foreign exchange authorized by the Exchange Control Department of the SARB ("**Authorized Dealer**"). Where non-residents acquire shares in a South African entity, it is therefore necessary to have their share certificates endorsed as "non-resident" by an Authorized Dealer. The endorsement process is not unduly onerous and ensures that in the event of payment of dividends or the proceeds of a sale, the non-resident shareholder may freely remit such funds abroad. To have share certificates endorsed, it is necessary to satisfy the Authorized Dealer that the transaction in which they were acquired was:

- a. at arm's length;
- b. at market-related prices; and
- c. financed in a manner approved by the SARB.

As with the acquisition of shares, all loans to a South African company made by non-residents require SARB approval. By contrast, an acquisition of assets other than shares is subject to SARB review only if the consideration is not paid in cash.

A regulatory area that is currently in flux is the state of South Africa's bilateral investment protection agreements (BITs). The protections contained in these agreements include duties to pay market value compensation in case of expropriation or nationalization, to provide full protection and security and fair and equitable treatment to foreign investors and investments, and to treat foreign investors and foreign investments no less favorably than domestic investors and investments.

In 2010, the Department of Trade and Industry (DTI) initiated a review of its BITs, which indicated that most of South Africa's BITs were structured to favor foreign investors. South Africa subsequently began a process which had the objective of replacing its BITs with domestic legislation. The Promotion and Protection of Investment Bill ("**BITs Bill**") was, accordingly, first published for comment on 1 November 2013. Despite being roundly criticized, a revised version of the BITs Bill was enacted as the Protection of Investment Act, 22 of 2015 ("**Investment Act**"). Yet to be promulgated, the effects of the Investment Act have yet to be seen. It aims to balance the state's constitutional obligations and sovereign right to regulate investment in the public interest with protection of foreign investment.

The Investment Act purports to extend the constitutional rights of access to information, administrative due process and protection of property from arbitrary deprivation to foreign investors. It also includes the right to repatriate funds (subject to applicable taxation and "other" legislation). The key criticism of the Investment Act lies in the fear that, despite providing that "foreign investors and their investments must not be treated less favorably than South African investors in like circumstances," it will fail to provide for the "fair and equitable treatment" of investors. The criticism is based on the Investment Act affecting rights afforded to investors in terms of the BITs by:

- a. removing the assurance of full market value compensation where investors are subject to expropriation, instead investors will be provided with compensation that is 'fair and equitable' in accordance with the Constitution of the Republic;
- b. removing the obligation on the South African government to enter into international arbitration in the event of a dispute, replacing this mechanism with mediation facilitated by the DTI or South African court procedures; and
- c. allowing investor's rights to be altered unilaterally through legislative amendment by the South African Parliament.

These criticisms notwithstanding, the Investment Act can also be read to ensure that foreign investors **are** subject to all local protections offered by South African law and the Constitution. Further, the Investment Act has not affected double taxation or other similar agreements.

Government or local participation requirements

The Constitution guarantees all South Africans common citizenship and equal benefit of its rights, benefits and privileges. Recognizing past denial of such rights, the Bill of Rights provides for "remedial measures" to "protect or advance persons, or categories of persons, disadvantaged by unfair discrimination." The Constitution, accordingly, places an obligation on the South African Government to take legislative and other measures to redress the consequences of past racial discrimination. This extends to the obligation to reform access to land, water and other resources – including mineral resources and wealth-generating commercial activities.

One result of South Africa's transformative Constitution is the enactment of public procurement legislation (including the Preferential Procurement Policy Framework Act, 5 of 2000) which provides for categories of preference in the granting of government tenders and contracts. Public procurement legislation operates together with the Broad-Based Black Economic Act, 53 of 2003 ("**B-BBEE Act**"),

as amended on 24 October 2014, to promote economic transformation and enable meaningful participation of black people in the South African economy.

Focusing primarily on transforming ownership and management of commercial enterprise, the B-BBEE Act establishes an incentive-based system to provide previously disadvantaged South Africans with greater access to property, business opportunities and other economic benefits. The key mechanisms through which the B-BBEE Act operates are the B-BBEE Codes of Good Practice ("**Generic Codes**") together with certain industry-specific codes. The Generic Codes, first gazetted by South Africa's Minister of Trade and Industry on 9 February 2007 and subsequently amended on 1 May 2015, provide a scoring framework linked to empowerment levels consistent with the objectives of the B-BBEE Act. Where public tenders are concerned, the requisite empowerment levels are, generally, specified in such tender documentation. Companies tendering for government contracts can improve their B-BBEE levels by procuring from other "empowered" companies. Accordingly, the B-BBEE Act has put in place an incentive-based system linking chains of procurement with transformed ownership, management and workforce composition.

MPRDA's B-BBEE provisions and the Mining Charter

In the mining sector, B-BBEE is regulated not by the B-BBEE Act and Generic Codes, but by the Mining Charter issued in terms of the MPRDA.

The Mining Charter focuses on the following elements of transformation:

- a. ownership;
- b. procurement, supplier and enterprise development;
- c. beneficiation;
- d. employment equity;
- e. human resources development;
- f. mine community development; and
- g. housing and living conditions.

The MPRDA uses the definition of HDP or HDSA rather than "Black People" as in the B-BBEE Act. An HDSA or HDP is defined as any person, category of persons or community, disadvantaged by unfair discrimination before the Constitution took effect; any association composed of such persons (or a majority of such persons) or a juristic person other than an association, in which such persons own and control a majority of the issued capital or members' interest and are able to control majority

of the members' votes. The MPRDA requires that a charter for the mining industry address sectorial historical inequalities. The first such charter was published in 2002, has since been replaced by the Mining Charter of 2010, and more recently superseded by the Mining Charter of 2018.

The Mining Charter differs from the Generic Codes and sector-specific codes issued in terms of the B-BBEE Act in that **compliance** is necessary to obtain and retain both mining and prospecting rights. Changes to the Mining Charter have reflected developments specific to South Africa's mining industry. One such example is the Mining Charter's concept of "meaningful economic participation" which requires that, irrespective of the funding arrangements put in place to allow for HDSA participation, HDSA participants must receive a portion of any dividend declared over the life of the transaction. This inclusion makes the so-called "trickle dividend," which had been incorporated into a number of HDSA-related mining transactions, mandatory.

The Mining Charter of 2018, similar to the provisions of the Mining Charter of 2010, includes a number of minimum requirements and targets which are aimed at a staged transformation of the mining industry.

In terms of the Mining Charter of 2018, mining companies are required to ensure that, within a period of five years, 70% of both capital and consumer goods and 80% of their services are procured from South African based manufacturers, and spent with HDPs, women and youth owned and controlled companies as well as BEE-compliant companies. The above targets exclude any non-discretionary procurement expenditure. For further background on these requirements, it is important to note that a BEE-compliant company is defined as a company with a minimum B-BBEE level 4 status in terms of the Department of Trade and Industry's B-BBEE Codes of Good Practice, and minimum 25% +1 vote ownership by HDSA participants. These minimum procurement requirements are higher than the targets set out in the Mining Charter of 2010. The Mining Charter is designed to have the same rolling effect as the public procurement legislation. By requiring suppliers to the mining industry to become B-BBEE entities in order to remain competitive, the Mining Charter has resulted in transformation in both the primary mining space and secondary industries.

In terms of the ownership requirements under the Mining Charter of 2018, an existing mining rights holder who has achieved a minimum of 26% BEE shareholding shall be recognized as compliant for the duration of the mining right. The only offset for this ownership requirement is against the value of any beneficiation of mineral resources undertaken in terms of Section 26 of the MPRDA. The calculation of the offset includes the continuing consequences of previous transactions, taking into account market share as measured by attributable production units. This offset, however, is capped

at 11% for existing mining right holders. Under the Mining Charter 2018 (for the beneficiation equity equivalent mechanism in lieu of BEE shareholding), a maximum of five percentage points of BEE shareholding will be provided for.

The position for pending and new mining and prospecting rights require higher BEE shareholding targets than for existing mining rights holders. For pending applications, although applicants only need to comply with the minimum requirement of 26% BEE shareholding under the Mining Charter of 2010, such applicants have to increase their BEE shareholding to 30% within a period of five years from the effective date of the mining right. For new mining rights, an applicant must maintain a minimum of 30% BEE shareholding, which shall include economic interest and a corresponding percentage of voting rights per mining right or in the mining company which holds a mining right. The 30% BEE shareholding has to comply with the following requirements:

- a. 5% non-transferable carried interest to qualifying employees from the effective date of the mining right;
- b. 5% non-transferable carried interest or a minimum 5% equity equivalent benefit as defined to host communities from the effective date of a mining right;
- c. a mining right holder has to ensure that any reduction in shareholding of existing shareholders through the issue of new shares, shall not reduce qualifying employees carried interest and host communities' carried interest or equity equivalent benefit;
- d. 20% effective ownership in the form of shares to a BEE entrepreneur and 5% hereof must preferably be for women; and
- e. a mining right holder (of the minimum 20% shares) is obliged not be diluted below 51% ownership and control by a BEE entrepreneur.

In addition to ownership requirements, the transformative purpose of the Mining Charter includes obligations to employees and "the community." On the employment front, mining companies are required to ensure workplace equity, and that diversity achieves an HDP level of (i) 50% for the board of directors; (ii) 50% for executive management; (iii) 60% for senior management; (iv) 60% for middle management; (v) 70% for junior management; and (vi) 60% for core and critical skills, with minimum representation levels required for women at all these levels. There is also a requirement that 1.5% of all employees of mining companies are to be disabled persons. Mining companies are additionally required to contribute to human resource development (over and above the already mandatory skills levy). Under the Mining Charter of 2018, this levy remains at 5% of the annual payroll. The intention

behind this levy is to support South African based research to find solutions and develop initiatives for better exploration, mining, processing and technological efficiencies.

Mining companies were initially required to establish measures to improve the standard of living of its employees. Specifically, mining companies were obliged to take measures to ensure that by 2014, hostels were converted into family units, with an occupancy rate of one person per room and to facilitate home ownership options for all employees in consultation with organized labor. In terms of the Mining Charter of 2018, a mining rights holder has to submit a housing and living conditions plan to the Department of Mineral Resources, after consultation with organized labor and the Department of Human Settlements.

Beyond the immediate workforce, mining companies are required to consider "community" needs. Mining companies must therefore develop projects in line with integrated development plans, the cost of which should be proportional to the mines investment in the area.

From the perspective of sustainable development and mining industry growth, every mining company was obliged, under the Mining Charter of 2010, to implement the environmental management and industry health and safety provisions of the "Stakeholders' Declaration on Strategy for Sustainable Growth and Meaningful Transformation of South Africa's Mining Industry of June 2010 and in Compliance with All Relevant Legislation." However, the Mining Charter of 2018 does not contain the same sustainability requirements and eases the obligations for mining companies.

The overall effect of the Mining Charter is to place the full responsibility for compliance with the national empowerment policy with the mining industry with the threat of suspension or cancellation of rights as a consequence for failure to comply.

Mining Charter 2018

In October 2013, the Generic Codes were updated to alter the "scoring system" used to define B-BBEE levels. One result of the new codes becoming operational on 1 May 2015 ("**New Codes**") was a disconnect between the B-BBEE standards applicable to industries subject to the Generic Codes and those which had developed sector-specific codes (the Mining Charter included). The DTI therefore announced that all sector codes and charters were to be amended to be brought in line with the New Codes. Such alignment had to be complete by 30 October 2015. The mining sector was granted an extension until October 2016.

Subsequent to these developments, and pursuant to Section 100(2) of the MPRDA, the Mining Charter of 2018 was promulgated on 27 September 2018 and, together herewith, the Implementation Guidelines (GN 1399 GG 42122 of 19 December 2018) ("**Implementation Guidelines**") and the Amendment to the Mining Charter of 2018, were published on 19 December 2018. The significant changes under the latest Mining Charter relate to increased BEE ownership requirements for mining rights holders and procurement expenditure having to comply with onerous provisions.

The Mining Charter of 2018 provides that an existing mining rights holder who has achieved a minimum of 26% BEE shareholding shall be recognized as compliant for the duration of the mining right. In this regard, it is envisioned that the 26% HDSA ownership share be consolidated and held by a special purpose vehicle. Further, not less than 5% of the 26% stake must be equitably distributed among workers (in the form of employee share ownership schemes), black entrepreneurs and the community. The interest of the community and the employees will have to be housed in trusts registered in terms of the Trust Property Control Act, 57 of 1988. As per the section above, we have also commented on the increased BEE shareholding requirements for new mining right applications and pending applications.

The procurement requirements in the Mining Charter of 2018 have also been increased, compared with the Mining Charter of 2010, to require mining companies to procure a minimum of:

- f. 70% of the total mining goods' (mining goods is defined as both capital goods and consumables) procurement spend must be on South African manufactured goods. The 70% is allocated as follows:
 - 21% is to be procured by a HDP owned and controlled company;
 - 5% has to be procured by women or youth owned and controlled company; and
 - a minimum of 44% is to be procured from a BEE compliant company;
- g. 80% of services must be sourced from a South African based company further split into a minimum of the following, namely:
 - 50% must be spent on services supplied by HDP owned and controlled companies (defined as HDPs holding at least 51% of the exercisable voting rights and economic interests, including the flow-through principle);
 - 15% must be spent on services supplied by women owned and controlled companies;
 - 5% must be spent on services supplied by the youth; and
 - 10% must be spent on services supplied by a BEE compliant company.

- h. The Mining Charter requires that the procurement targets must be complied with progressively within a period of five years, as outlined in the transitional arrangements. Furthermore, a mining right holder must ensure that (i) the terms and conditions offered to women owned and controlled companies, or youth, are not less favorable than those offered to other suppliers; and (ii) all procurement expenditure reported must be the actual expenditure incurred.

Land tenure and priority

All mineral resources are under the custodianship of the state until lawfully extracted. The MPRDA creates a system of mining tenure separate from land tenure. Therefore, landowners cannot claim ownership of mineral resources found on their land. Holders of prospecting and mining rights, however, do have to consult landowners as part of the rights application process and are required to reach agreement over surface rights – including securing access arrangements to the prospecting or mine site.

As a form of property, mining and prospecting rights are protected by the constitutional property clause which prohibits "arbitrary deprivation" of property and requires "fair and equitable compensation" in the event that expropriation for "a public purpose or in the public interest" becomes necessary. Expropriation itself is governed by statute, allows representations to be made and requires compensation.

A risk of which mining companies should be aware, is the potential for land claims on land subject to mining or prospecting rights. Due diligence enquiries into potential land claims prior to investing in mining enterprises or engaging in the rights application process may assist in reaching agreements with claimant communities or individuals. Such agreements may be designed to meet community development obligations in the MPRDA and ensure cooperation with local communities, thereby mitigating the risks of protracted conflict over or loss of mineral tenure after the commencement of operations.

Indigenous or local community rights

The South African Constitution recognizes customary law as having equal standing with South African common law, both subject to the Constitution. Accordingly, customary law entitlements to property are recognized and protected. Customary law property entitlements include: the rights to possess, access, occupy, use and enjoy an area and its resources; to visit and protect sites of cultural and religious significance; to hunt, fish, herd and grow crops; and to conduct social, religious

and cultural activities and ceremonies. In practice, protection of customary property rights is ad hoc and regulated by the courts. However, customary property entitlements may be raised through opposition to applications for prospecting or mining rights.

The National Heritage Resources Act, 25 of 1999 ("**Heritage Act**") includes protection of places to which oral traditions are attached or which are associated with "living heritage" (i.e., "the intangible aspects of inherited culture"). Protected areas and objects include graves and burial grounds, culturally significant landscapes, geological sites, and archaeological/paleontological sites ("**Heritage Sites**"). Heritage Sites are protected from damage or destruction. Mining and associated activities would, in most cases, require notification of the responsible heritage resources authority. If necessary, the authority will request further investigation and reporting and, thereafter, determine whether development may proceed, or proceed subject to restrictions. The effect of the Heritage Act is that sites of importance in terms of customary law or communities adhering to customary law may be protected by virtue of their designation as Heritage Sites. Generally, due diligence at the early stage of mining operations/mining company acquisition will reveal the presence of Heritage Sites. Similarly, the presence of Heritage Sites may be determined as part of the environmental impact assessment (EIA) process discussed below.

The MPRDA recognizes customary property entitlements and indigenous or local community rights through two key mechanisms. The first is the creation of "Preferent Prospecting or Mining Rights" ("**Preferent Rights**") in Section 104. The second is the series of consultation requirements found in the MPRDA as well as in the NEMA.

Preferent Rights may only be granted in the absence of pre-existing mining or prospecting rights. Accordingly, they do not pose a risk to mining companies. They may only be granted to a "community" which is able to show that the right will be used to contribute towards the development and social upliftment of the community and that benefits resulting from the granting of the right will accrue to such community. Preferent Rights endure for five years and may be renewed for a further five-year period.

The greatest area of uncertainty pertaining to indigenous and local community rights lies in the consultation process and the MPRDA's definition of "community." A "community" is defined as a "group of historically disadvantaged persons with interests or rights in a particular area of land on which the members have or exercise communal rights in terms of an agreement, custom or law..." This definition is broadly aligned with legislation designed to protect customary and informal land rights. Accordingly, and as part of the consultation requirements of the MPRDA, it may become

advisable or necessary for mining companies to engage with indigenous communities and, particularly in rural areas subject to traditional leadership, with traditional leaders.

Environmental protection and rehabilitation obligations

Section 37 of the MPRDA makes the principles of the NEMA applicable to all prospecting and mining operations. It also makes principles of sustainable development applicable to mining operations "by integrating social, economic and environmental factors" into all stages of the planning and conduct of operations to exploit mineral resources. With effect from September 2014, amendments to the MPRDA and NEMA have aligned to the two statutes to ensure that mining occurs within the broader environmental management framework. The most important and wide-reaching environmental principle is the "duty of environmental care." This operates as a catch-all requirement for all mining and prospecting activities and should inform how specific obligations are interpreted.

Two principles with a direct effect on how mining companies engage with environmental obligations are the notion of "cradle-to-grave" environmental planning and the presumption that the "polluter pays." The "cradle-to-grave" approach is evident in two key provisions of the MPRDA. The first, Section 22, requires that persons wishing to apply for mining rights must **simultaneously** apply for environmental authorization – therefore requiring that environmental considerations are present even before mining operations commence. The second, Section 43, deals with the requirement of closure certificates on the cessation of mining. Such certificates may only be granted once obligations have been met in respect of "environmental liability, pollution, ecological degradation, the pumping and treatment of extraneous water, compliance to the conditions of the environmental authorization and the management and sustainable closure" of the mine. The MPRDA also empowers the minister to recover costs from polluters in the event of environmental emergencies and to suspend or cancel mining or prospecting rights if conditions of an environmental authorization are breached. An important effect of such ongoing obligations is that holders of prospecting or mining rights as well as the previous holder of an old order right or previous owner of works that has ceased to exist, remains responsible for any environmental harm – and the resulting liability beyond the cessation of mining operations. The extent to which historical polluters may be held liable is an emerging area of law. The legislative framework, however, does provide criminal offenses for historical pollution which attract extensive financial penalties as well as personal liability for company directors.

The potential liability associated with environmental obligations is tempered by a general "reasonableness" standard and clear guidance regarding expectations of the reasonable use of natural resources. Where a competent authority finds that "reasonable measures" to prevent

environmental harm have not been taken, it may require that such step be taken – usually through compliance notices. Further non-compliance may lead to the competent authority taking the necessary steps itself and recovering costs from the responsible parties. Administrative or criminal penalties may also follow. What constitutes "reasonable measures," however, is fairly clear from the details of the environmental legislation (rather than the MPRDA). Regulations passed in terms of the NEMA determine the process of application and granting of environmental authorizations, which, in turn, contain clear requirements and standards for authorized activities.

The NEMA operates together with a range of national, provincial and local legislation. The most significant of these are the NWA, National Environmental Management: Air Quality Act, 39 of 2004 ("**NEM:AQA**") and National Environmental Management: Waste Act, 59 of 2008 ("**NEM:WA**"). Each of these acts provides for licensing (for water use, air emissions and waste management, respectively) in addition to those environmental authorizations granted in terms of the NEMA. They further impose monitoring and reporting standards and, like the NEMA itself, impose administrative and criminal penalties for non-compliance.

In practice, the environmental authorization process governed by the NEMA is used to identify which environmental legislation is applicable to a particular situation and to ensure that the relevant requirements are met. The NEMA requires that a registered environmental consultant manage the EIA process. An EIA is only required once the application for the mining right has been accepted by the regional manager (who is a senior official in the provincial department of mineral resources) ("**Regional Manager**"). In addition to addressing water use, air quality and waste management concerns, an EIA may also consider requirements such as biodiversity, protected areas, Heritage Sites and coastal zones. The EIA, usually contained in an Environmental Management Plan (EMP) must be submitted to the Regional Manager within 180 days of being notified that an application for a mining right has been accepted.

Significantly, one of the conditions for the granting of a mining right is that "the mining will not result in unacceptable pollution, ecological degradation or damage to the environment and an environmental authorization is issued." In terms of this section, the minister must only grant the right if the applicant complies with all the statutory requirements. As such, it is clear that the mining right cannot be granted if an EIA and EMP have not been submitted within the requisite time periods as part of the process for the DMR to assess the mining right application. A requirement upon application for an environmental authorization relating to mining or prospecting rights is that applicants "comply with the prescribed financial provision for rehabilitation, closure and ongoing post decommissioning

management of negative environmental impacts." The form of financial provision which is acceptable is prescribed by the NEMA regulations.

The environmental obligations of mining companies are ongoing. The framework, however, focuses on sustainable development which requires a balance between resource exploitation and preservation. Following the integration of the MPRDA with environmental legislation, greater clarity on the duty of care of mining companies is emerging.

Exploration licenses

Scope

For purposes of conducting prospecting activities, an applicant must hold a prospecting right. It is important to distinguish between "prospecting rights" (which pertain to minerals) and "exploration rights" (which pertain to petroleum). This section considers prospecting rights only.

"Prospecting" is defined as "intentionally searching for any mineral by means of any method (a) which disturbs the surface or subsurface of the earth, including any portion of the earth that is under the sea or under other water; or (b) in or on any residue stockpile or residue deposit, in order to establish the existence of any mineral and to determine the extent and economic value thereof; or (c) in the sea or other water on land."

A prospecting right entitles the holder to:

- a. enter the land to which the right relates and to bring onto that land any plant, machinery or equipment and build, construct or lay down any surface, underground or under sea infrastructure which may be required for the purpose of prospecting;
- b. prospect for his/her own account on or under that land for the mineral for which the right has been issued;
- c. an exclusive right to remove and dispose of any mineral to which the prospecting right relates and which is found during the course of prospecting (subject to the requisite permission being granted);
- d. use water from any natural spring, lake, river or stream situated on or flowing through the relevant land or from any excavations made and used for prior prospecting or mining purposes (subject to licensing and other requirements of the NWA);
- e. sink a well or borehole required for prospecting operations (again, subject to the licensing and other requirements of the NWA);

- f. carry out activities incidental to prospecting, subject to all applicable laws;
- g. an exclusive right to apply for and be granted (one) renewal of such prospecting right; and
- h. an exclusive right to apply for and be granted a mining right in respect of the relevant mineral and prospecting area (subject to the conditions for grant of a mining right being met).

Duration

Prospecting rights are granted for a period specified in the license for a period of up to five years. One renewal of a period of up to three years is permitted. Renewal applications must be in the prescribed form and follow the prescribed process. If compliance with all requirements is met, renewals must be granted.

The minister is empowered to cancel or suspend prospecting rights in the event that the holder thereof:

- a. conducts the relevant activity contrary to the provisions of the MPRDA;
- b. breaches any material term or condition of its right;
- c. contravenes any condition of its environmental authorization; or
- d. has submitted any incorrect, false, fraudulent, inaccurate or misleading information in connection with any matter required to be submitted in terms of the MPRDA.

In the event that the minister is considering such suspension or cancellation, the holder is provided with due process rights and an opportunity to remedy the default. Accordingly, the minister is required to provide the holder with written notice of the intention to suspend or cancel the prospecting right with reasons and to provide a reasonable opportunity to demonstrate why the license should not be suspended or canceled. The minister must, further, direct the holder to take specific corrective action to remedy the default. In the event that the holder fails to comply with such directions and after considering any representations made by the holder, the minister is entitled to suspend or cancel the relevant license. License suspensions may be lifted by the minister if he/she is satisfied that the holder has complied with ministerial directives, or made satisfactory representations.

Steps to acquire a prospecting right

The process commences with the relevant application, together with an application for an environmental authorization, being made in the prescribed manner and against the payment of the prescribed non-refundable fee. The application is made to the Regional Manager. It must be accepted if it is the first such application received on time for a specific mineral resource that meets the

application requirements. If the application does not meet the relevant right's requirements, it must be rejected in writing within 14 days.

If the application is accepted, the Regional Manager must, within 14 days, give written notice to the applicant to:

- a. submit all required environmental reports within 60 days; and
- b. consult the landowner, lawful occupier and all interested and affected parties (the outcome of such consultation to be included in the environmental reports).

Once in receipt of such information, the Regional Manager is required to forward the application to the minister for consideration. The minister must grant the prospecting right within 30 days if the applicant demonstrates:

- a. the necessary B-BBEE compliance;
- b. access to financial resources and the technical ability to pursue prospecting activities optimally in accordance with the submitted prospecting work program;
- c. an estimated expenditure compatible with the proposed prospecting operation and duration of the prospecting work program;
- d. that prospecting will not cause unacceptable pollution, ecological degradation or environmental damage and an environmental authorization has been issued;
- e. the ability to mine safely;
- f. absence of contravention of any provisions of the MPRDA; and
- g. that the applicant may provide meaningful opportunities for HDSAs in respect of mineral exploitation in the case of certain prescribe minerals only.

If the above requirements are **not** demonstrated, the minister must refuse to grant the prospecting right by written notice within 30 days, providing reasons for such refusal. Refusal is also required if the grant will result in some form of exclusionary or anti-competitive act.

It takes approximately six months to be granted a prospecting right, however, in some instances, it has taken longer. Prospecting rights become effective on the "effective date," which is the date on which the right is issued or "executed." Execution means signature by the applicant and a representative of the DMR before a notary public.

Relationship with landowners

Subject to 21 days' written notification to landowners and lawful occupiers of the land subject to a prospecting right, and the consultation of such landowners and lawful occupiers required during the application and environmental authorization process, the holder of a prospecting right is entitled to, among other things, enter the land; bring machinery, plant and equipment onto the land; build, construct and lay down infrastructure which may be required for purposes of prospecting; prospect, use water, drill boreholes and carry out any other function ancillary to prospecting.

A common misconception is that the entitlement to use the land automatically entitles the landowner or occupier to compensation. While habitually some form of compensation is offered to landowners and occupiers, there is no general entitlement to compensation but only a limited right pertaining to loss or damage caused by the license holder. Landowners may not prevent prospecting activities or access to land for such purpose. Section 54 of the MPRDA requires the holder to notify the relevant Regional Manager where access is refused, made subject to unreasonable demands, or where a landowner cannot be found to apply for access. Similarly, where a landowner or occupier is of the view that a holder has acted unreasonably, notice must be given to the Regional Manager. A process is then prescribed whereby the Regional Manager is required to facilitate agreement between the parties. If such facilitation fails, the matter must be referred for final resolution by arbitration.

An important development regarding interpretation of the balance between land/surface rights and those rights granted in terms of the MPRDA has occurred in respect of the application process. The concept of "meaningful engagement" with landowners, occupiers and interested and affected parties, means that applicants for prospecting or mining rights are required to ensure that landowners understand the impact of proposed activities. There is, in addition, a strong emphasis on the relevant parties reaching mutually beneficial agreement over land use and access **prior** to the granting of MPRDA rights.

Obligations of the holder

Once granted a prospecting right, the holder is obliged to:

- a. lodge the right for registration in the Mineral and Petroleum Titles Registration Office within 60 days of the date on which the right becomes effective (or is renewed);
- b. commence prospecting activities within 120 days;
- c. continuously and actively conduct prospecting activities in accordance with its prospecting work program;

- d. comply with the terms and conditions of the prospecting right, environmental authorization and all relevant laws;
- e. pay prescribed fees and royalties to the state;
- f. submit progress reports and date of prospecting operations to the Regional Manager within 30 days of submission thereof to the Council for Geoscience;
- g. obtain specific authority to remove and dispose of diamonds and bulk samples of other minerals found during the course of prospecting for the holder's own account;
- h. maintain proper records of prospecting operations, the results thereof, connected expenditure, borehole core data and core-log data at its registered place of business;
- i. submit progress reports and data to the Regional Manager; and
- j. comply with relevant B-BBEE requirements.

Holding tenements

South Africa does not have holding tenements or any other right similar to a holding tenement.

Development/production tenements

Scope

For the purposes of conducting production activities, an applicant must hold a mining right. As with the distinction between rights pertaining to prospecting of minerals and exploration of oil and gas, a distinction is made between "mining rights" (in respect of minerals) and "production rights" (in respect of petroleum).

A mining right entitles the holder to:

- a. enter the land to which the right relates and to bring onto that land any plant, machinery or equipment and build, construct or lay down any surface, underground or under sea infrastructure which may be required for the purpose of mining;
- b. mine for his/her own account on or under that land for the mineral for which the right has been issued;
- c. an exclusive right to remove and dispose of any mineral to which the mining right relates and which is found during the course of mining;
- d. use water from any natural spring, lake, river or stream situated on or flowing through the relevant land or from any excavations made and used for prior prospecting or mining purposes (subject to the licensing and other requirements of the NWA);

- e. sink a well or borehole required for mining operations (again, subject to the requirements of the NWA);
- f. carry out activities incidental to mining, subject to all applicable laws;
- g. an exclusive right to apply for and be granted (one) renewal of such mining right; and
- h. apply for and be granted a mining right for the same mineral in the same area.

Duration

A mining right is usually granted for a maximum period of 30 years and may be renewed for further periods not exceeding 30 years per renewal.

As is the case with prospecting rights, the renewal process follows a prescribed process and requires application in the prescribed form. Once a renewal application has been lodged and provided, and it has been lodged prior to the expiry of the relevant mining right, the mining right will remain valid until the renewal application has finally been dealt with.

The minister's power to suspend or cancel prospecting rights, as described above, applies equally to mining rights. In addition, mining rights may be suspended or canceled by the minister if the MPRDA requirement of "optimal mining" is not met. If the Minerals and Mining Development Board ("**Board**") makes a recommendation that the minerals mined under a right are not being mined optimally, or that the objective of promoting employment and advancing the social and economic welfare of all South Africans is being detrimentally affected, the minister must direct the right holder to take immediate corrective action. Board recommendations to the minister must consider the holder's technical and financial resources as well as prevailing market conditions. Further, before directing corrective action, the minister must allow the holder the right of representation. Non-compliance with the minister's directive and failure to provide satisfactory representations entitles the minister to cancel the mining right.

Transition from prospecting right to mining right

A prospecting right may only be renewed once for a period of three years. After such renewal, the holder must apply for a mining right. The entitlement to apply for and be granted a mining right in respect of the mineral and prospecting area subject to the prospective right is exclusive to the holder (although the requirements for grant of a mining right must still be met).

Steps to acquire a right

The initial application follows the same steps as those pertaining to prospecting rights. If the application is accepted, the Regional Manager must, within 14 days of receipt of the application, give written notice to the applicant to:

- a. submit all required environmental reports within 180 days; and
- b. consult the landowner, lawful occupier and all interested and affected parties (the outcome of such consultation to be included in the environmental reports).

Once in receipt of such information, the Regional Manager must forward the application to the minister for consideration within 14 days. The minister, thereafter, has 60 days in which to make a decision to refuse to grant a mining right (and a further 30 days to provide written notice of such decision to the applicant) if requirements are met. These include the applicant demonstrating that:

- a. the necessary B-BBEE compliance;
- b. the mineral can be mined optimally in accordance with the mining work program;
- c. it has access to financial resources and the technical ability to conduct the proposed mining operation optimally;
- d. its financing plan is compatible with the intended mining operation and its duration;
- e. no unacceptable pollution, ecological degradation or damage to the environment will result from mining operations;
- f. an environmental authorization has been issued;
- g. provision has been made for the prescribed social and labor plan;
- h. it has the ability to mine safely;
- i. it has not contravened the MPRDA; and
- j. granting the mining right will further B-BBEE objectives, the objectives of the social and labor plan, and the MPRDA objectives of substantially and meaningfully expanding opportunities for HDSAs to enter into and benefit from the mineral industry and to promote employment and advance the social and economic welfare of all South Africans.

Mining rights may be granted subject to conditions to promote the rights and interests of a community (including requirements for community participation) where an application pertains to community land.

Relationship with landowners

The same considerations pertaining to prospecting rights are applicable to holders of mining rights.

Obligations of the holder

Once granted a mining right, the holder is obliged to:

- a. lodge the Mining Right for registration in the Mineral and Petroleum Titles Registration Office within 60 days of the date on which it becomes effective or is renewed;
- b. commence with mining activities within one year of the date on which the mining right becomes effective;
- c. actively conduct mining activities in accordance with the mining work program;
- d. comply with the terms and conditions of the Mining Right, environmental authorization and all relevant laws;
- e. comply with its approved social and labor plan and submit annual reports on compliance with the social and labor plan as well as the MPRDA's social and welfare objectives;
- f. maintain records of mining activities and related financial records at its registered place of business;
- g. submit prescribed monthly returns; and audited annual financial report or financial statements;
- h. submit reports as required by NEMA - including reporting on environmental financial provision;
- i. pay royalties to the state; and
- j. comply with the provisions of its B-BBEE obligations as contained in the Mining Charter and the mining right

Assignment of and security over tenements

Section 11 of the MPRDA sets out that other than in the instance of a change of a controlling interest in a publicly listed company and the encumbrance by mortgage of the relevant right in favor of a bank or financial institution (in which event a sale in execution will still trigger the consent requirement referred to below), a prospecting right or a mining right, or an interest in such right, or a controlling interest in a company or close corporation holding the right, may not be ceded, transferred, let, sublet, assigned, alienated or otherwise disposed of in the absence of the written consent of the minister. The consent must be granted if the transferee is capable of carrying out and complying with the obligations, and terms and conditions of the respective right.

"Control" extends to indirect control in respect of an entity that holds a mining or prospecting right. Therefore, Section 11 approval would be required where there is a change of control in the indirect shareholding of such a company. This is the case even in the case of a non-resident entity.

Any attempted transfer which does not comply with the provisions of section 11 is void.

Royalties

Once a mining right is obtained, the holder is obliged to pay royalties to the State as provided for in the Mineral and Petroleum Resources Royalty Act, 28 of 2008 ("**Royalty Act**") and the associated Mineral and Petroleum Resources Royalty (Administration) Act, 29 of 2008 ("**Administration Act**"). The Royalty Act applies to all Mining Rights' holders, subject to exemptions for small, South African businesses.

The Royalty Act and the Administration Act were promulgated on 17 November 2008. The Royalty Act provides that any person (whether natural or juristic) who "wins" or "recovers" a mineral resource (or on whose behalf such mineral resource is won or recovered) is obliged to pay a royalty for the benefit of the National Revenue Fund in respect of the transfer of that mineral resource. Transfer of a mineral resource includes the first disposal, consumption, theft, destruction or loss of a mineral resource, other than by way of flaring or other liberation into the atmosphere during the mining process. Subsequent transactions in respect of a mineral will not attract the payment of a royalty.

The royalty is determined by multiplying the gross sales of the extractor in respect of that mineral resource during the year of assessment by the applicable royalty rate for that year of assessment. The floating royalty rates for refined and unrefined mineral resources are capped at 5% and 7% respectively.

The royalty rate is determined in accordance with the following formula:

$$RR = 0.5 + \left(\frac{EBIT}{G(R \text{ or } UR)} \right) \times 100$$

Where:

RR = the royalty rate applicable

EBIT = earnings before interest and tax

G = gross sales in respect of the mineral resource

R = refined resource multiplier of 12.5

UR = unrefined resource multiplier of 9

Schedules to the Royalty Act define conditions for refined and unrefined mineral resources which, in effect, allows for classification thereof, and, accordingly, determine the applicable royalty rates. Deeming provisions apply in respect of mineral resources that meet conditions below or between the

specified conditions. Further, where mineral resources are transferred other than in accordance with the provisions of the schedules, a deeming provision may be applicable to the gross sales of the party who has won the mineral.

Mineral reporting and classification

The Listings Requirements of the Johannesburg Stock Exchange have adopted the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves ("**SAMREC Code**") and South African Code for Reporting of Mineral Asset Valuation ("**SAMVAL Code**"). One of the requirements for listing a company on the Johannesburg Stock Exchange (JSE) is submission of a "Competent Person's Report." Such report must comply with the SAMREC and SAMVAL Codes. Annual reporting requirements similarly require disclosure of compliance with the SAMREC Code.

Other key issues

Usual structure of venture

As prospecting and mining rights are not transferable without ministerial consent, as discussed below, one of the generally utilized methods of investing in a South African mining project is to acquire shares in the company holding the prospecting or mining right. However, currently the transfer of a controlling shareholding in a company holding the prospecting or mining right also triggers the provisions of Section 11 of the MPRDA, which requires the consent of the minister.

It is important to note that because of the 26% HDSA participation requirement in the Mining Charter, the usual structure of mining ventures must include a HDSA shareholder holding at least 26% of the shares in the mining company.

Restricted mining areas

The MPRDA prohibits the granting of prospecting or mining rights over land comprising a residential area; any public road, railway or cemetery; any land being used for public or government purposes or reserved in terms of any other law; or areas identified by the minister through publication in the Government Gazette. This prohibition is subject to ministerial consent if satisfied that the mining or prospecting will take place within the confines of environmental management policies, norms and standards; granting mining or prospecting rights will not detrimentally affect the interests of any holder of a prospecting or mining right and with regard to the sustainable development of the mineral resources involved and the national interest.

Export

The state or government does not purport to have ownership of any portion of the minerals once mined. In terms of Section 12 of the Precious Metals Act, 37 of 2005, no person may export any unwrought or semi-fabricated gold without approval of the National Treasury granted with the concurrence of the minister. Further, export of unwrought or semi-fabricated metals of platinum requires written ministerial approval. Such approval must be granted subject to the promotion of equitable access to and the orderly local beneficiation of such metals. "Beneficiation" is defined in the MPRDA in terms of four stages of mineral extraction, recovering and refining.

Taxes

South African companies, and non-resident companies deriving income from a source in South Africa, are subject to corporate tax at a rate of 28% on their taxable income. For corporate tax purposes, mining companies potentially qualify to deduct certain capital expenditures which would otherwise not be deductible, subject to certain conditions.

In addition, capital gains tax (CGT) applies to South African resident entities on the taxable capital gain made on the disposal or deemed disposal of any asset. With regards to non-South African resident entities, CGT applies to the following assets:

- a. immovable property (for example, Mining Rights, land and buildings etc.), or any right or interest in immovable property, situated in South Africa;
- b. shares in a company where 80% or more of the market value of those shares is attributable to immovable property (for example, Mining Rights, land and buildings etc.), in South Africa and the non-South African resident holds directly or indirectly 20% or more of the shares in the company; and
- c. assets of a permanent establishment (for example, a branch of a foreign company) situated in South Africa.

CGT is levied at a rate of 80% of the corporate tax rate applicable to companies (i.e., an effective CGT tax rate of 22.4%).

Dividends withholding tax (DWT) must be withheld from dividends declared by a South African entity at a rate of 15%. Certain exemptions do apply in the case of domestic retirement funds, public benefit organizations and domestic companies.

It should be noted that South Africa is a party to double taxation agreements (DTAs) with a number of other countries. In terms of these DTAs, non-South African residents are offered relief from international double taxation. The effect of DTAs in certain instances is that DWT and/or CGT rates applicable to non-South African residents may be reduced.

Overlapping tenements

As noted above, there is no restriction on overlapping tenements. As a result, it has become practice for holders of overlapping mining rights to enter into agreements to regulate access to mining sites and extraction of the relevant mineral resources.

Infrastructure

South Africa's infrastructural challenges are to be expected given the size and developing status of the country. Technological advances have, further, opened up new and more remote areas for mineral exploitation. Some infrastructural challenges present in South Africa are highlighted below.

Power supply

Unstable supply of electricity is a topic frequently in the news. This is has caused significant disruptions to mining production and development. However, South Africa's electricity supplier is a major consumer of coal and other fuel sources and, as such, the unstable electricity supply is also an opportunity for mining companies.

One such opportunity is the Coal Baseload IPP Procurement Programme ("**Programme**") which was launched by the Department of Energy to assist with electricity constraints. It is envisaged that approximately 7761 megawatts will be generated from baseload energy sources in terms of the Programme, specifically coal, natural gas and hydro energy.

Water

In mining regions around the world a lack of reliable water sources contributes to the challenges mining companies are facing. South Africa is presently experiencing a country wide drought which has impacted various mining operations.

An unstable water supply is detrimental to mining production and as such it is becoming increasingly necessary for mining companies to make provisions for water shortages. Anglo American is an

example of a mining company doing this as it has established the Emalahleni Water Reclamation Plant. This plant allows Anglo American to minimize its dependence on municipal water supplies.

Rail and port capabilities

Extensive and reliable "pit-to-port solutions" are vital if South Africa is to grow its mining industry in the future.

Large distances and poor historical infrastructure mean that major investment in "pit-to-port solutions" is required in South Africa for producers to be accommodated. However, the lack of such infrastructure puts a financial burden on mining companies who are forced to use inefficient and costly alternatives. Accordingly, this is something which all mining investors must take cognizance of.

Mine health and safety

The MHS Act was promulgated pursuant to, and adopted as a result of, the recommendations of the Leon Commission of Inquiry into the Safety and Health in the Mining Industry conducted in 1994. The MHS Act and its regulations provide detailed standards and requirements for mine safety and aims to give effect to South Africa's international law obligations in this regard. In addition to the MHS Act, certain regulations promulgated in terms of the repealed Mines and Works Act, 12 of 1911 and Minerals Act, 50 of 1991 remain in force.

The basic premise of the MHS Act is that government, employers and employees in the mining sector must subscribe to governance, health and safety priorities. Accordingly, employers are required to develop and implement systems to identify, assess and control health and safety risks so as to prevent accidents as far as is reasonably possible. Additionally, mines must be designed, constructed, equipped and operated in a manner that allows for a safe working environment. Employers are, further, required make certain statutory appointments in relation to mine management and health and safety monitoring. Reciprocal duties are placed on employees who are required to take reasonable care to protect their own health and safety as well as those of others and to comply with risk mitigation measures put in place by employers.

Compliance with the provisions of the MHS Act is monitored by the chief inspector of mines, who is obliged to compile and distribute health and safety information, advise the minister on relevant issues, appoint a medical inspector and to determine annual inspection plans and reports on mine health and safety. The chief inspector is also responsible for monitoring environmental health on mine sites and

is empowered to require all mines to prepare and implement hazard management, as well as health and safety, systems.

Inspectors, under the direction of the chief inspector of mines, are empowered to enter mines at any time without warrant or notice; enter any other place with the necessary warrant; and to bring into and use on any mine or place the vehicles, equipment and materials necessary to perform their functions in terms of the MHS Act. Inspectors have wide-ranging powers and employers and employees are obliged to assist them in the performance of their duties.

Useful websites

Department of Mineral Resources - <http://www.dmr.gov.za/>

Department of Energy - <http://www.energy.gov.za/>

Department of Trade and Industry - <http://www.dti.gov.za/>

Department of Science and Technology - <http://www.dst.gov.za/>

Department of Water and Sanitation - <http://www.dwa.gov.za/>

Department of Environmental Affairs - <http://www.environment.gov.za/>

Chamber of Mines South Africa - <http://www.chamberofmines.org.za/>

Institute of Mine Surveyors of Southern Africa - <http://www.ims.org.za/>

The Southern Africa Institute of Mining and Metallurgy - <http://www.saimm.co.za/>

Mining Industry Association of Southern Africa - <http://www.miasa.org.za/>

Council of Geoscience - <http://www.geoscience.org.za/>