



REPORT

ZA

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A scenic view of a river flowing through a rocky, forested landscape. The river is a vibrant turquoise color, contrasting with the brown and green of the surrounding terrain. The rocks are large and jagged, and the vegetation is dense and lush. The overall scene is a natural, undisturbed environment.

# Financial Provisions for Rehabilitation and Closure in South African Mining: Discussion Document on Challenges and Recommended Improvements (Summary)

# ACKNOWLEDGEMENTS

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# BACKGROUND

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Mining in South Africa is recognised as a key element of economic development. However, as significant public resources are now required to deal with the legacy of mining in the Witwatersrand basins, there is growing public concern that those who profit from mining are not footing the bill for environmental damage caused by their operations.

The incidence of Acid Mine Drainage (AMD) and the high number of Derelict and Ownerless (D&O) mines, as well as dangerous sinkholes and collapsing entry points (particularly in the Witwatersrand gold fields), have effectively brought the consequences of inadequate environmental rehabilitation in the mining sector into sharp focus. Government has recently been forced to pick up the rehabilitation tab in terms of AMD and D&O mines around the country. Given the scale of the problem, it is clear that government alone will struggle to address this need effectively. The Auditor-General has criticised the Department of Mineral Resources for not planning and securing the budget necessary to remediate the environmental legacy of nearly 6,000 abandoned mines around the country.

Our mining law dictates that miners should pay to remediate the damage they cause. Section 41 of the Mineral and Petroleum Resource Development Act (MPRDA) incorporates the polluter pays principle, and requires applicants of prospecting or mining rights to make financial provisions for the rehabilitation or management of negative environmental impacts. The provisions are meant to ensure that the fiscus will not be burdened with rehabilitation costs as is the case with AMD and D&O mines.

While D&O mines account for a significant portion of the current environmental impacts, there is consensus among various stakeholders on the need to ensure that current and future mining activities do not continue to burden government, and by default the taxpayer, with escalating environmental liabilities. This has prompted concerned stakeholders to closely scrutinise the issue of financial provisions as provided for by Section 41 of the MPRDA.

WWF-SA, as one of the key concerned stakeholders, commissioned a study which aims to provide a critical review of the processes surrounding the determination of financial provisions for mine rehabilitation and closure. The study, which sought to highlight challenges and recommend improvements on financial provisions for rehabilitation and closure, focused on the estimation and adequacy of provisions; the types of financial instruments that may be used; the protection of the provisions against claims of other creditors; and the reporting of the financial provisions.

# THE ESTIMATION AND ADEQUACY OF FINANCIAL PROVISIONS

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Mining companies are required under section 39 of the MPRDA to draw up an Environmental Management Plan (EMP) for approval by the Department of Mineral Resources (DMR). The EMP must include a rehabilitation and closure plan that should explain how the environmental impacts will be mitigated and how the environmental costs will be internalised. The estimation of financial provisions as provided for in section 41 of the MPRDA should be in sync with the EMP and may be based either on rehabilitation and closure cost estimation models developed by the mining concern or the DMR guidelines developed in 2005.

A review of the practice of financial provision estimation, looking at the efficacy and application of the DMR guideline released in 2005 for the evaluation of the quantum of closure-related financial provision, revealed the following areas of concern:

- High levels of variation with regard to the quality of Environmental Management Plans/or Programmes (EMPs) and inadequate consideration of longer term water quality issues in particular. This pointed to a lack of a standard or benchmark EMP and variability in the qualifications and experience of Environmental Assessment Practitioners (EAP) responsible for the compilation of the EMP.
- EMPs with inadequate or no rehabilitation plans at all, making it difficult to trace the links that should be clearly present between these plans and the calculation of financial provisions. Some EMPs were also noted to contain inadequate consideration for longer-term water quality issues.
- Master rates contained in the 2005 Department of Mineral Resources (DMR) guidelines (2005 DMR Guidelines) are not adjusted for inflation, resulting in significant under-estimations of adequate financial provisions.
- The 2005 DMR guideline has other limitations: firstly, it does not legally bind a holder of a prospecting or mining right to annually assess environmental liability and annually adjust provisions; secondly, its generic nature means it cannot deal with all situations relating to financial provisions and mine closure; thirdly, it excludes site-specific conditions; and fourthly, it does not cater for some sectors of the mining industry in South Africa such as subsistence (“pick and shovel”) mining.

- Lack of concurrent rehabilitation and clear incentives for concurrent rehabilitation, resulting in higher longer-term and more significant risks, particularly with regard to water quality impacts. This will impact negatively on adequate rehabilitation at closure.
- There are indications that a number of mines are not making adequate financial provision for closure (uncertainty with regard to the adequacy of financial provisions appears to be the greatest challenge in relation to providing for adequate post closure water treatment and management). This is supported by targets set in the two most recent strategic plans of the DMR, which explicitly recognise that more needs to be done to ensure greater compliance with financial provision requirements.
- Confidence in financial provision estimates is undermined by the lack of publicly available independent reviews of financial provision calculations.

In light of these areas of concern regarding the estimation and adequacy of provisions noted in the study, the following recommendations are made:

- The elevation, enhancement and regular updating of the DMR guidelines for the evaluation of the quantum of closure-related financial provisions, entailing:
  - Augmentation of the guideline to ensure that it remains clear, responsive to changes and actively draws on industry/stakeholder experience and advances on an ongoing basis. Consulting mining stakeholders would improve the quality of the guideline and ensure stakeholder confidence and buy-in. The DMR guideline should be treated as a living document through regular scheduled reviews and updates given the dynamic nature of rehabilitation, and the master rates contained in the guidelines should be adjusted for inflation every year.
  - Incorporation of other relevant resources such as the 2008 Department of Water Affairs (DWA) Best Practice Guideline Series for Water Resource Protection and the 2007 Chamber of Mines (CoM) & Coaltech Guidelines on Rehabilitation of Mines.
  - Clarification of links between the EMP guidelines and the DMR financial provision calculation guidelines to ensure comprehensive, easily referenced and quantified rehabilitation plans in EMPs.
  - Incorporation of measures to incentivise concurrent rehabilitation, as this would significantly increase the likelihood of meeting rehabilitation goals at closure.

- Augmented and structured use of the independent review mechanism as a standard and default approach when assessing the adequacy of financial provisions. At the moment independent review is used only in the case of dispute between DMR and mining companies in terms of estimation of the financial provisions amount.
- Improved public access to data and information on financial provisions by mining companies. At the moment this data is not easily accessible from DMR.
- Enhancement of the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC code) to allow for greater clarity on how environmental liability costs need to be taken into account, including potential links to the DMR guidelines for the evaluation of the quantum of closure-related financial provisions.
- Integrated authorisation/sign-off of EMPs from environmental and water authorities. This is imperative given the fact that the DMR guidelines for determining financial provisions have no formula or factor for determining the financial provisions for water management. The Department of Water Affairs (DWA) guidelines have a principles-based approach that should underpin the water management financial provisions.



Only 12% of South Africa's land area generates 50% of the country's river flow. This highlights the need to plan the development of our landscapes to protect the country's most important water, soil and biodiversity resources.

# FINANCIAL INSTRUMENTS USED FOR SECURING FINANCIAL PROVISIONS

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The financial rehabilitation provision required in terms of section 41 of the MPRDA can be provided via one of four methods: cash deposit; guarantee; insurance; and approved trust fund. The different methods, from DMR's perspective, ensure that the risk of default is spread and diversified among more entities, thus reducing the risk of default. Some of the instruments are quite complex and go beyond the financial expertise of DMR. Each of these methods has certain advantages, but also contains certain risks.

In the instance of insurance and bank guarantees, the creditworthiness of the counterparties involved play a key role, as does the ability of the counterparty to on-sell a portion or all of the risks it has assumed by means of credit derivatives. In the instance of a trust fund, the ability of the DMR to access the funds as contemplated in section 41(2) of the MPRDA may be problematic. In addition, it seems that the standard trust documentation prescribed by the DMR purports to impose obligations on the mining entity in its capacity as beneficiary, which is problematic in law. The wording of the trust deed and the MPRDA must be aligned with the provisions of the Income Tax Act (ITA) due to the former making reference to repealed sections of the ITA. Furthermore, while section 37A of the ITA places welcome and needed limitations on the type of investments that these trusts may make, further recommendations are made to ensure that funds invested by the trust are capital protected and enjoy the appropriate degree of diversification and spreading in order to limit risk.

The impact of the Insolvency Act and the business rescue provisions of the Companies Act on the financial provision and whether it is adequately protected are uncertain and legislative amendment is required in this regard.

It is noted that the provisions of the standard trust deed are not completely aligned with the National Environmental Management Act (NEMA), the MPRDA, the Trust Property Control Act or the Companies Act insofar as the limitation of liability of trustees/directors is concerned. Consequently recommendations are made with regard to the inadequate cross referencing of the MPRDA with other legislation to adequately deal with liability of directors/trustees. While the liability of trustees should not be too onerous, at a minimum trustees should assume liability should the trust be administered in a manner that would result in the obligations imposed in terms of section 41 of the MPRDA not be discharged.

In addition, the ability to deregister companies in terms of the Companies Act can occur independently of whether a closure certificate has been issued in terms of section 41 of the MPRDA. Furthermore, distributions made by mining entities to shareholders where unfunded environmental obligations exist may not always be subject to the protection afforded by section 4 of the Companies Act imposing a solvency and liquidity test before the making of distributions as defined.



For many South African's living in urban areas, "nature" is a place to visit. Food comes from shops, and water from the tap. But for a large part of the country's rural population, the connection to nature and its services is more direct.

The impacts of abandoned mines on the environment are often felt by rural communities who do not have access to basic municipal services (such as piped and treated water supply), and are therefore directly reliant on natural resources for their food and water.

These communities are the most vulnerable and sometimes voiceless. For this reason we urge government to act now to prevent further degradation of our rivers and aquifers.



# FINANCIAL REPORTING OF ENVIRONMENTAL RISKS AND CLOSURE LIABILITIES

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A review of the financial reporting framework relating specifically to environmental risks and closure liabilities revealed:

- There exists a lack of compatibility between environmental considerations and the standard accounting framework. This is particularly apparent in the context of the quantification of liabilities or provisions where uncertainties exist (which is typically the case with environmental obligations). Secondly, the fact that the primary users of the financial statements typically do not include regulators raises concerns as to the efficacy of the financial reporting framework as a primary means of verifying environmental compliance. Thirdly, materiality both qualitative and quantitative is an important factor in the context of the presentation of financial statements. It is hoped that the concept of qualitative materiality would play an important role in ensuring that environmental risks are appropriately disclosed in the financial statements. Fourthly, the study expresses reservations about the safe haven provisions with limited liability for inaccuracies that apply to “forward looking statements” as defined and how this interacts with the duty of care provisions of NEMA.
- The lack of standardisation and industry benchmarking in the context of the integrated reports of various entities were also found to be problematic as they rendered meaningful comparison difficult.
- Much of the integrated reports are not customized for the South African context and allow too much scope for “ticking the boxes” in the absence of substantial compliance, for instance with regard to the disclosure of water and energy consumption without simultaneous or comparative disclosure as to the extent of available resources. The study made recommendations to standardise disclosure practices to be adopted by all mining entities.
- The role that shareholder involvement can play needs to be stressed with specific reference to the Code for Responsible Investing in South Africa, King III, Regulation 28 to the Pension Funds Act and the role of the Equator Principles in respect of funded projects. The efficacy of these measures in improving environmental compliance is limited by the absence of clear current guidelines and lack of applicability to all mining entities.

- The possibility of requiring all mining entities, whether legally incorporated as companies or not, to conduct an annual audit in terms of section 30 of the Companies Act was explored on the basis that mining per se falls within the public interest as contemplated in that section. Cost constraints inter alia mitigate against the need for a full audit, which may be in excess of what is required in terms of an environmental assurance report. The latter, which would be adequate from an environmental perspective, would simply entail the giving of assurance that there has been substantial compliance with environmental laws and regulations and that the provision required by section 41 is adequate and the assumptions used in its calculation are reasonable, consistent with prior years and comprehensive. It is recommended that the format and content of the assurance report be further researched.
- The concerns raised regarding financial reporting in general seem to suggest the need for a customised accounting standard or other form of guidance applicable to accounting disclosures to be made by mining entities. In this regard, guidance can be obtained from the Exposure Draft of Australian Water Accounting Standard issued by the Australian Government Department of Meteorology in 2010 or the principles of a Carbon Disclosure Project, customised for the mining and South African context.

## Conclusion

Rehabilitation of mines by operators (during the operational phase, at mine closure and post closure) is imperative if government is to be relieved of the severe environmental liabilities it is facing with regard to AMD and D&O mines.

Effective rehabilitation is dependent on sufficient and secure financial provisions for rehabilitation and closure. Determination of financial provisions is complex, particularly given the dynamic nature of rehabilitation.

There is need for a review of the way financial provisions are estimated, the instruments used for securing the provisions and the financial reporting of environmental risks and closure liabilities. Mining and the environment

# Mining and the environment



**12%**

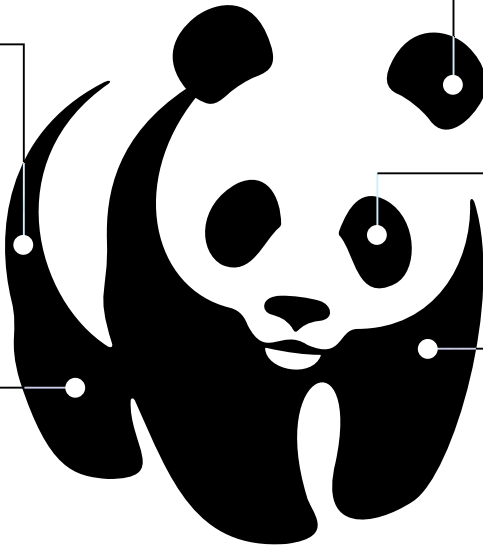
of South Africa's land area generates 50% of the country's river flow.

**54%**

of Mpumalanga province is under some form of planned mining action.

**44 years**

After mine closure that acid mine decant started into the Blesbokspruit in Gauteng.



**R30 billion**

The estimated cost of cleaning up after South Africa's nearly 6000 abandoned mines according to the country's Auditor General.

**6000**

Approximate number of closed and abandoned mines in South Africa.



**Why we are here**

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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