

THE SOCIAL IMPACT OF DIAMOND MINING – IS IT TIME TO REVISIT THE SCORECARD?

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Abstract

In South Africa, diamonds are mined predominantly in rural areas. Kimberlitic diamonds dominate in Limpopo and the Northern Cape Provinces whereas alluvial diamonds are mainly sourced from the North West and Northern Cape Provinces. There are a few large and medium sized diamond companies (De Beers, Petra Diamonds, Trans Hex, Rockwell and Alexkor). There are many smaller companies involved in diamond mining, mostly alluvial diamond mines. The nature of alluvial diamond deposits is that they are aerially more extensive and thus their surface impacts are more pervasive. The recent downturn in diamond prices has resulted in the sudden cessation of mining at many small and medium diamond operations. The South African Mining Charter requires all mines, including diamond mines, to subscribe to the following empowerment objectives:

- *Human Resource Development*
- *Employment Equity*
- *Non-Discrimination of Migrant Labourers*
- *Increased Procurement from HDSA Communities*
- *Mine Community and Rural Development*
- *Improvement of Housing and Living Conditions*
- *Change in Ownership/Management and Joint Ventures*
- *Increase in Beneficiation*

Companies are required to report annually on progress in achieving their commitments and these interventions are subject to audit. The recent focus on the West Coast of South Africa (Van Wyk et al., 2009) emphasized the ongoing social problems that persist in mining communities in spite of mines being there for more than half a century. This paper focuses on the delayed implementation of sustainable development strategies by diamond producers and delayed monitoring by government departments. This delay will continue to result in ongoing negative effects. This is seen across all diamond mining regions in South Africa. Towns like Douglas, Barkley West, Swartruggens and Zebedelia will all show similar levels of post closure decay and dereliction.

There is evidence that many companies do report on their compliance to the Mining Scorecard requirements. This is particularly easier to see with listed companies where Scorecard compliance is made public. However, the dilemma facing state departments lies with verifying the accuracy of the information and more critically the impact of the strategies and interventions. Ongoing criticism of diamond producers are that they fail to implement local economic development strategies and thereby leave the communities in which they operate severely destitute. What is often overlooked is that the period from 2004

to 2009 (from the gazetting of the MPRDA until the conversion of old to new order rights) was a period in which many companies were required to establish their baselines, develop plans and submit these for approval. The current Scorecard indicators emphasise planning, implementation and integration of strategies. This paper will thus examine the measurement of strategy impact (social, economic and environment) on mining communities and recommend some measures of impact that could be incorporated into an expanded Scorecard.

1. INTRODUCTION

South Africa is a substantial producer of diamond rough and was ranked 6th by volume in 2007 yet it remains firmly entrenched as a net producer of rough with insignificant beneficiation (<5% is processed into high value, diamond end use products) (DME, 2008). This disconnect has seen an increasing emphasis being placed on the diamond producing sector to contribute more towards improving the livelihoods of South Africans as well as pursuing an agenda that sees greater local beneficiation. With these two pressures being added to diamond mining companies (ranging from large and medium to smaller scale diggers) there is increased emphasis on companies to be responsible for more than just the diamondiferous ore body. There is a tendency for large producers to be focused on the larger deposits while the smaller deposits are typically developed by smaller producers, including diggers. The smaller operations are most typically those where more job opportunities are created.

Diamonds in many developing countries have been associated with armed conflict that inflicts damage on human life and civilian infrastructure. Several examples exist in countries like Sierra Leone, Angola and the Democratic Republic of Congo (DRC). However, the failure of diamond production to impact on the livelihoods of communities close to where operations are based has also led to increased resentment and a different type of non-violent but more socio-politically driven tension. This is seen in more politically stable countries such as Namibia, Botswana and South Africa. In cases where armed conflict has taken place there have been attempts to reduce conflict by using various forms of embargoes (on inputs such as equipment and fuel) to stem the flow of illicit diamonds. Interventions such as the Kimberley Process also attempt to curb the flow of diamonds and linked revenue to areas where armed conflict is taking place. However, the problem remains in those areas where diamond production has led to socio-political tension and armed conflict is unlikely to occur.

2. SOUTH AFRICAN DIAMOND LANDSCAPE

In South Africa diamonds are predominantly derived from several kimberlitic clusters located in the east of the country. These kimberlites do have, as a consequence of weathering, alluvial features close by and deposits that extend several hundred kilometers away. The predominant alluvial diamond deposits are located on the western side of South Africa. Many 'diamond towns' have emerged close to and as a consequence of the alluvial

diamond operations – Figure 1. The fortune of the ‘diamond towns’ are inextricably linked to the fortunes of the diamond industry and continuous mining. Towns such as Alexander Bay, Kleinzee, Douglas, Barkley West, Cullinan and Alldays exist on the success of diamond mining.

The recent economic downturn has seen all diamond mining companies reduce production levels and many small digger operations have closed entirely. The immediate impact has been a loss of jobs at these mines. Alluvial diamond mines have been significant employers of local communities and provide necessary services to these communities. The dramatic closure of these mines has left many companies having to attempt to maintain their own interventions in the towns that surround them. Failure to continue such support or not having implemented sustainable interventions earlier has resulted in many large and small mining companies being criticized for their poor social development programmes, which should ideally have been rolled out earlier (Van Wyk et al., 2009).

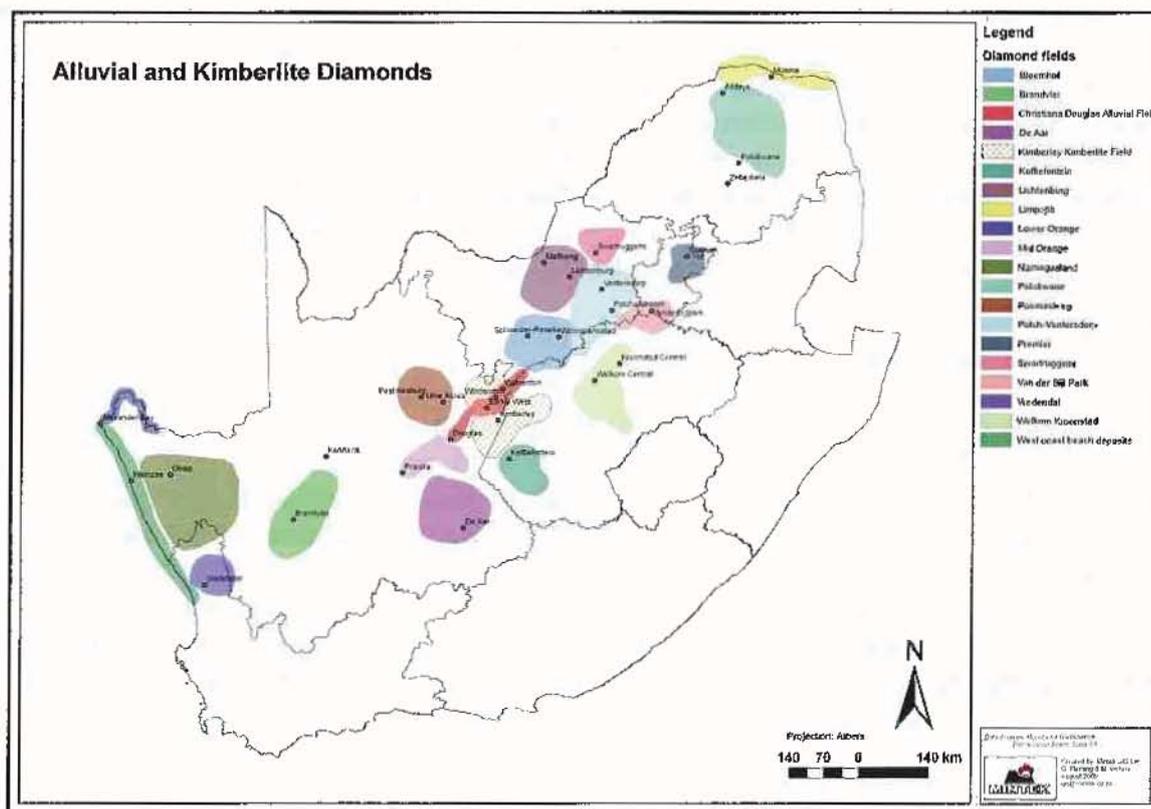


Figure 1: Diamond Fields of South Africa
 Source: Council for Geoscience

The introduction of the Mining Scorecard in South Africa has provided a guideline against which companies must attempt to achieve their transformational and socio-developmental targets. The target dates for implementation of socio-development programmes was mid 2009 so the impact is expected to only be visible in years to come. However, the current

economic crisis means that the planned interventions will be further delayed or may never take place.

Indigenous communities typically feel an increasing form of social alienation, economic inequity and environmental destruction due to mining in their region (Renner, 2003). From the extraction of the diamonds to the final sale, there is ongoing discontent experienced by local communities who feel they are not included in the process and do not experience the material benefits that should accrue from mining. In South Africa attempts have been made to ensure that benefits filter down to the mining communities through the objectives of the Mining Scorecard that aims to ensure improved sustainability and local economic development as a result of mining operations.

2.1. The Mining Scorecard

As part of their commitment to the objectives of the South African Mining Charter, mining companies need to adhere to the nine objectives of the Mining Scorecard.¹ These objectives consider the social plight of the employee; the family and extended community; while ensuring that economic opportunities are provided and criteria for reporting progress presented. In an attempt to determine the social, economic and environmental impact of mining companies' sustainable development strategies on mining communities, the Scorecard is used as a tool to determine whether or not the broad-based socio-economic empowerment goals of the Charter have been achieved. For the purposes of this paper, the nine pillars of the Scorecard are referred to as indicators.

2.2. What is an Indicator?

An indicator can best be described as a measurement tool determining how close an organization is from achieving an objective and whether or not that organization is moving in the right direction in order to attain that goal. In choosing indicators, the relevance of these indicators to achieving the goal is important as well as the need for the indicators to be measurable and understood by the local community. Thus the indicators of the Scorecard can be used to determine how close a mining company is to achieving the socio-economic goals of the Charter and whether or not the mining company is showing progress in terms of meeting the objectives of the Charter. The period from 2004 to 2009 was largely used to establish mutually acceptable baselines and develop plans.

2.3. Types of Indicators for Sustainable Development

In order to measure sustainable development, there are four types of indicators that require consideration, namely social, economic, environmental and governance.

¹ The nine pillars of the Mining Scorecard include: Human Resource Development; Employment Equity; Migrant Labour; Mine Community and Rural Development; Housing and Living Conditions; Procurement; Ownership and Joint Ventures; Beneficiation and Reporting.

Social indicators deal with welfare issues. The impact that the strategies of mining companies have on mining communities is relevant here and whether or not these strategies have a positive impact on the local community. As defined by Zapf (1993) social indicators are measures that can be used as a tool of measurement in determining the level and distribution of welfare in a society. Economic indicators deal with economic growth and development issues and examine the impact that the strategies of mining companies have on the local economy and how these strategies contribute to the economic diversification and development of these mining communities. These indicators can be used to inform the opportunities provided to the local community. Environmental indicators deal with the ability of nature to accommodate the changes caused by mining and examine the impact that mining companies' strategies have on the environment while taking into account the specific environmental concerns of the local community and how best these can be addressed by the mining company. Governance indicators consider whether mining companies adhere to the legal requirements imposed on them. It can also consider mechanisms to monitor the various laws and regulations.

3. LEGISLATIVE ENVIRONMENT

The Mineral and Petroleum Resources Development Act (MPRDA)² seeks to ensure that the nation's mineral and petroleum resources are developed in a sustainable manner while promoting justifiable social and economic development and ensuring that holders of mining and production rights contribute to the socio-economic development of the areas in which they operate. Social, economic and political inequities of the past have resulted in high levels of poverty, illiteracy, unemployment and distorted patterns of resource use and waste generation. The policy objective of the MPRDA is thus to expand opportunities for historically disadvantaged persons to enter the mining and minerals industry and benefit from the exploitation of the nation's mineral resources. The MPRDA it also gives effect to Section 24 of the South African Constitution³ which brings together the key components of conservation with justifiable economic and social development. The social, economic and environmental impact of mining companies' sustainable development strategies on mining communities therefore need to be examined within the context of the MPRDA and resulting Mining Charter and Scorecard. The Scorecard provides not only an administrative tool but a legislative tool to ensure that a practical framework is provided to ensure that mining companies' operations measure up to what is intended by the MPRDA and Mining Charter.

² Act No 28 of 2002.

³ The Constitution of South Africa is Act 108 of 1996. Section 24 reads:

Everyone has the right

- a. to an environment that is not harmful to their health or well-being; and
- b. to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that
 - i. prevent pollution and ecological degradation;
 - ii. promote conservation; and
 - iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

The State ensures that holders of mining and prospecting rights contribute to the socio-economic development of the area in which they are operating. Mining operations therefore need to take place within an appropriate national policy framework while promoting socio-economic development and sustainable development strategies.

3.1. Regulatory Environment

In line with the provisions of the MPRDA and in order to address the importance of the social, economic and environmental impact on mining communities, Social and Labour Plans, Environmental Management Plans and Mine Work Plans need to be adhered to in order for the Department of Mineral Resources to award mining rights -Figure 2.

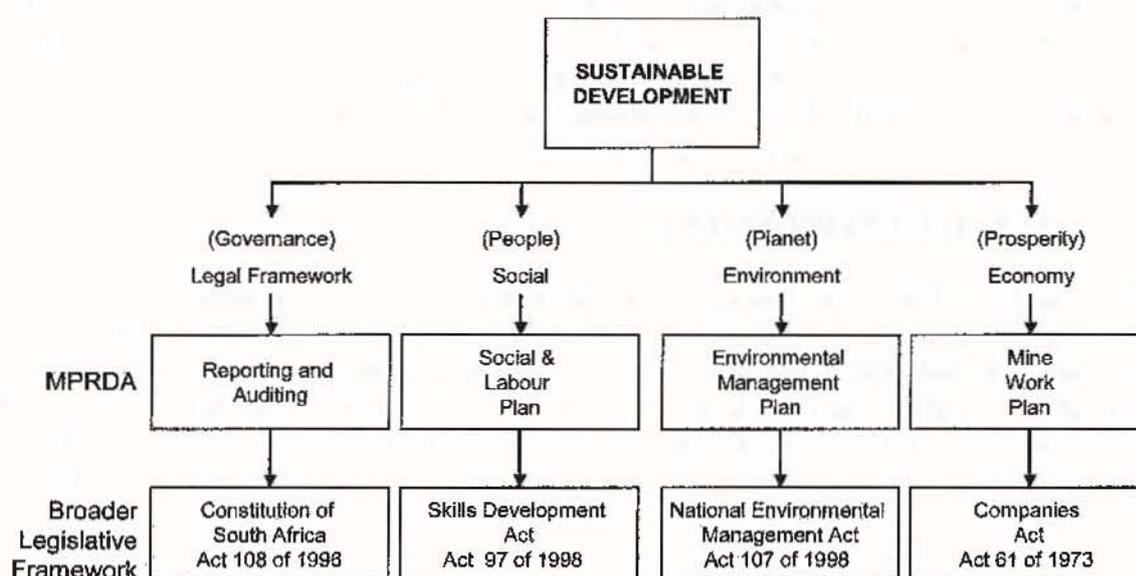


Figure 2: The link between Sustainable Development and the Legislative Framework in SA

3.2. Social and Labour Plan

The Social and Labour Plan forms a legislative requirement of the Regulations of the MPRDA. Any applicant (a mine or production operation) needs to submit a Social and Labour Plan as part of their application for a mining or production right which stresses their planned local impact. In line with the MPRDA and the Mining Charter, the Social and Labour Plan's objectives are to:

- i. Promote employment;
- ii. Advance the social and economic welfare of South Africans;
- iii. Contribute to the transformation of the mining industry; and
- iv. Ensure that mining companies contribute towards the socio-economic development of the areas in which they are operating and the areas from which the majority of the workforce is sourced.

To achieve this, the Social and Labour Plan needs to comprise of the following:

- i. A Human Resource Development Plan aimed at promoting employment and the social and economic welfare of workers through skills development plans, mentorship plans, internships and an employment equity plan;
- ii. A Local Economic Development (LED) Plan aimed at eradicating poverty and community upliftment in the area from which the majority of the workforce is sourced, this includes number of jobs created, infrastructure development, enterprise development, measures to address housing and living conditions and procurement progression plans⁴; and
- iii. A process to save jobs and manage the social and economic impact of individuals and communities where retrenchment or closure of the mine is certain.

As a social measure, the Social and Labour Plan aims to improve the quality of life of the community in which the mining operation is taking place through local economic development that is focused on employment and skills development of the community.

3.3. Environmental Management Plan

The Environmental Management Plan needs to be in accordance with the MPRDA's environmental management principles in that any mining operation needs to be conducted within the principles of sustainable development and all environmental impacts need to be managed in accordance with the approved plan. An environmental impact assessment must be conducted and this forms part of the approved plan.

The Environmental Management Plan must:

- i. Establish baseline information concerning the affected environment to determine protection, remedial measures and environmental management objectives;
- ii. Investigate, assess and evaluate the impact of the mining operation on the environment as well as the socio-economic conditions of any person or community who may be directly affected by the operation;
- iii. Develop an environmental awareness plan which outlines the manner in which the applicant will inform employees of any environmental risks which may result from their work and the manner in which the risks must be dealt with in order to prevent degradation of the environment; and
- iv. Describe the manner in which to control any process which may cause environmental degradation.

As an environmental measure, the Environmental Management Plan aims to ensure the minimal impact on the environment and the socio-economic well-being of the community in which the mining operation takes place.

3.4. Mining Work Plan

⁴ This does not refer to corporate social investment programmes that companies are involved in but rather to what the mine and production operation would leave behind.

The Mining Work Plan forms part of the legislative requirement of the Regulations of the MPRDA and outlines the life of mine together with a company's technical ability and financial resources.

The Mining Work Plan needs to comprise of the following:

- i. A plan outlining the land and area to be mined;
- ii. The details of the identified mineral deposit in terms of the type of mineral or minerals to be mined, the locality, extent, depth, geological structure, mineral content and mineral distribution;
- iii. The details of the market's requirements and pricing in respect of the mineral concerned;
- iv. The applicable timeframes and scheduling of the implementation phases of the mining operation and an estimated period for the mining of the mineral deposit;
- v. A financing plan; and
- vi. An undertaking by the applicant to adhere to the proposals set out in the plan.

As an economic measure, the Mining Work Plan aims to ensure the sustainability of the mining operation on the local community through the economic benefits that will accrue to the community as a result of the mining operation.

4. NEW INDICATORS RECOMMENDED

The recent economic downturn combined with years of declining production has caused the sudden closure of mines preventing many companies from implementing their job saving process plans. Similarly the roll out of environmental management plans and processes have also been dramatically curtailed. This is evident in the abandoned, unrehabilitated workings across many diamond towns.

In South Africa there has not been a need for increased embargoes and there are limited NGO reports to point out the various shortcomings by diamond mining companies. NGO attempts to increase transparency and attempt to expose any complicity is yet to fully launch in South Africa. However, to prevent the situation from worsening, it may be important to make the current indicators more robust to serve as an early warning mechanism for any further deterioration of the situation.

The emergence of sustainability assessment modeling as a means to quantify life cycle assessments of mining has brought to the fore the opportunity to investigate new forms of measuring sustainability. By attempting to monetize the impact of mining, including diamond mining, on the social and environmental spheres, economic returns can be offset against this to assess whether positive or negative contributions to communities remain.

Sustainability modeling therefore would consider positive and negative impacts such as jobs created; graduates supported; fatalities and cost of fatalities; permanent and temporary injuries and multiplier effects.

5. REFERENCES

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