

Sekoko Coal (PTY) LTD  
Sekoko Waterberg Colliery  
Scoping Report

---

***FOR THE PROPOSED MINING OF THE FARMS***

**Swanepoel Pan 262 LQ, Olieboomsfontein 220 LQ  
and Duikerfontein 263 LQ**

***In support of the amendment of the  
Environmental Management Programme for the  
Mining Right for the Sekoko Waterberg Colliery***

***Socio-Economic Impact Analysis of the Proposed  
Sekoko Waterberg Colliery near Lephalale in the  
Waterberg District Municipality – for the  
additional farms: Swanepoel Pan 262 LQ  
Olieboomsfontein 220 LQ and Duikerfontein 263  
LQ***

---

## Table of Contents

---

1 Background .....	3
2 Approach .....	3
2.1 Impact on Current Activities, Population and Environment .....	4
2.2 Economic Viability of Expansion Project .....	4
2.3 Economic Benefits .....	5
3 Data Requirements .....	5
3.1 From Mining Company .....	5
3.1.1 Fellow Team Members .....	5
3.2 Own Research .....	5

---

## **1 BACKGROUND**

Currently the already authorised Mining Right area of Sekoko Resources includes the farms Minnasvlakte 258 LQ, Smitspan 306 LQ, Massenbergrug 305 LQ and Remainder of Hooikraal 315 LQ. The three properties to be included in the amended Mining Right application are the farms Swanepoel Pan 262 LQ, Olieboomsfontein 220 LQ and Duikerfontein 263 LQ.

Apart from including these properties within the mining area, the reason for the amendment process is to increase the output of the mine from 5Mtpa to 10Mtpa. The mining process as already approved by the DMR will not change.

The proposed project will involve opencast and underground mining on the farms mentioned above. Coal will be mined for both the local power stations within the Waterberg area as well as for the export markets. A processing plant and various mine related infrastructure will be erected within an appropriate location within the mining area, depending on the final mining plan. Opencast mining will initiate on the farm Smitspan for the first 5 years at which stage only a 1-stage washplant for coal processing will be required. From year 4 to 20 opencast mining will be accompanied by underground mining, at which point a 2-stage plant will be required. During this period it is highly likely that opencast and possibly underground mining will commence on other areas within the mining right boundary. The total life of mine is expected to be beyond 60 years.

It is accepted that the original socio and macro – economic report will need to be supplemented for the new envisaged expansion and is it necessary that the area of investigation be defined and possible impacts be defined. Issues to be investigated include possible impacts on:

- Social and Economic impact on the Current Population including quality of life of the current population,
- Impacts on the Natural Environment and associated costs and the cost of possible mitigation measures,
- Potential Local and National Economic Impacts, the local municipality, the Limpopo province and South Africa as a entity.

## **2 APPROACH**

The economic impact assessment will be performed on three levels, namely:

- The possible impact on current economic activities, population and the environment, by first establishing a baseline of current activities to measure possible deviations from the baseline. This will be performed in current monetary

units and converted to macro – economic parameter like GDP, employment and Payments to Households.

- Determination if the project is economically viable, this is necessary to determine if the benefits associated with the project actually outweigh the possible negative impacts.
- If economically viable, estimate the positive economic parameters.

## 2.1 Impact on Current Activities, Population and Environment

The possible impact on the current activities must be calculated, differentiating between the “previous” application and the amended application with the new area being added.

The same applies for possible negative impacts on the current population, issues involved are graves, rural populations and their quality of life.

As far as possible impacts on the two ecology/environment aspects is to be considered. Firstly the possible costs associated with rehabilitation and secondly negative impacts on certain specific environmental sectors. The problem associated with many of these issues is allocating a monetary value to the impact or the mitigation process; this will be done in conjunction with the specific experts.

## 2.2 Economic Viability of Expansion Project

An Economic Cost Benefit Analysis (ECBA) will be performed to determine the economic viability of the project by calculating:

- Net Present Value (NPV),
- Internal Rate of Return (IRR),
- Benefit Cost Ratio (BCR).

The following table give an indication of the difference between a Economic CBA and a pure “profit” based CBA.

Attributes	Economic CBA	Financial CBA
Perspective	The broader community	Project shareholders/capital providers
Goal	The most effective application of scarce resources	Maximization of net value
Discount Rate	Social discount rate	Market determined weighted cost of capital
Unit of Valuation	Opportunity costs	Market prices
Scope	All aspects necessary for a rational, economic decision	Limited to aspects that affect profits
Benefits	Additional goods, services, income and/or cost saving	Profit and financial return on capital employed
Costs	Opportunity costs of goods and services foregone	Financial payments and depreciation calculated according to generally accepted accounting principles

To be accepted as economic viable, all three of the following conditions must be met:

- NPV >0
- IRR more than discount rate used,
- BCR>1.

### **2.3 Economic Benefits**

The projected macro – economic benefits will be calculated using a Social Accounting Matrix (SAM) based on an econometric model, in this case the Limpopo Provincial SAM.

The economic benefits will be expressed in terms of:

- Gross Domestic Product (GDP) – direct, indirect and induced;
- Employment – direct, indirect and induced,
- Household Income – low, medium and high,
- Impact on Balance of Payments;
- Impact on the Fiscus.

It will be calculated for the provincial and national economies.

## **3 DATA REQUIREMENTS**

### **3.1 From Mining Company**

The following data would be required from the mining company:

- a) The projected new capital to be invested with the estimated timeline. This must be in detail differentiating between mining and infrastructure investment.
- b) The coal production ramp-up over time, differentiating between local use and export tonnage.
- c) The projected operational mining cost.

### **3.2 Fellow Team Members**

The following will be sourced from fellow team members;

- Any negative environmental costs or the estimated cost of mitigation,
- Rehabilitation costs,
- Any social related costs

### **3.3 Own Research**

Conningarth will research the following:

- Projected coal prices over time,
- Possible negative impacts on current economic activities.
- Possible negative impacts on current farming activities.