

## Mining

### Keywords – title

- > Cole mining
- > Land use conflicts
- > Soil degradation
- > Health risks

## Introduction

Leeuwpan Colliery is located on the Mpumalanga Highveld, less than five kilometres from the town of Delmas, South Africa, approximately 65 kilometres East of Johannesburg (Figure 1). The Highveld is rich in coal reserves and numerous coal mining companies are exploiting these reserves. All the major multinational coal mining houses operating in South Africa are represented in this region, but small mining companies and black empowerment groups also benefit from the opportunities in the Highveld.

The Delmas region used to be known as the food basket of Johannesburg. In the 1970s city dwellers from Johannesburg used to drive to the Delmas farmers' markets on weekends to stock up with fresh produce. This region has some of South Africa's most productive arable land, and is of strategic importance for South Africa's national food and water security.

In 2012 the Maize Trust, in cooperation with the Bureau for Food and Agricultural Policy published an extensive report on the Delmas, Ogies and Leandra districts of the Highveld. They estimate that South Africa's long term Maize Production Capability will be reduced with 447 581 tonnes (t) per annum due to coal mining in this region. The BFAP report projects a corresponding 14% rise in the price of maize.

In a report on acid mine drainage McCarthy et al (2009) explain how various water sources and land in the area has been sterilised though acid mine drainage, rendering water useless for consumption and land unusable for food production.

## Background

Exxaro is South Africa's second largest coal producer with a capacity of 47 million t per annum, and the third largest global producer of mineral sands. They are listed on the Johannesburg Stock Exchange (JSE) and are one of the best

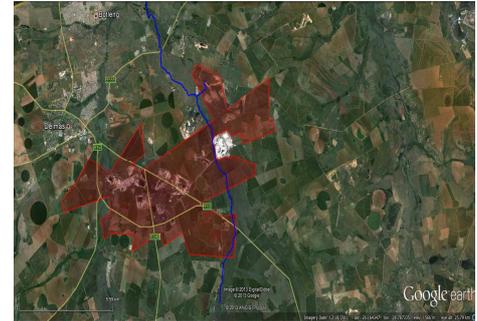


Figure 1: The Leeuwpan Mining Rights Area (shaded red), indicating proximity to Delmas, and an important tributary of the Olifants River (Blue Line) Source: author

performing companies on the JSE Sustainability Index. Empowerment is a core strategy of the company, and they are the largest black owned company in South Africa.

The company reported revenues of 21.3 billion South African Rand (ZAR) in 2011. In the same year three of their employees died in fatal accidents.

Their history starts with ISCOR, a state owned steel manufacturing giant during the apartheid era, from which Kumba Resources was unbundled in 2001 and listed on the JSE. In 2006 they relisted as Exxaro after unbundling their iron ore assets and acquiring Eyesizwe Coal. Today Exxaro's coal interests comprise a 100% interest in Kumba Coal and Eyesizwe.

## The Leeuwpan Project

Exploration of the original Leeuwpan Coal Reserves started in 1989 and the operation started in 1992. Very little is known about the ownership of the mine before 1999 when Eyesizwe Coal started operating this opencast mine. Through mergers and acquisitions Exxaro retained ownership of this mine. Leeuwpan Colliery has undergone major expansions over the decades, and has become a very large operation in the Delmas Coalfield.

The colliery employs approximately 500 people and extracts about three million t of coal per annum. Leeuwpan estimates that there is about 160 million t of coal underground in their area (the resource),





Figure 2: Weltevreden Farm, January 2013. Source: author



Figure 3: Mining activity at Weltevreden Farm (September 2012) after the stop order issued by the DWA, but before Exxaro's appeal at the High Court. Source: author



Figure 4: Renewed mining at Weltevreden Pan, with the wetland laid dry. July 2013. Source: author

of which 143 million t can be profitably mined (the reserve). This makes Leeuwpaan Colliery a very economically viable operation, with a total lifespan exceeding 45 years at the stated extraction rate.

Leeuwpaan is also expanding into previously unmined areas, with recent activity on the Weltevreden farm (Figures 2-4) northeast of Leeuwpaan, and current plans to mine Southeast of Leeuwpaan under development.

The Leeuwpaan Colliery currently occupies at least thirteen farms.

### Impact

According to the BFAP Report of the Maize Trustcoal mining is having the following environmental impacts on the Delmas Region:

- **Soil degradation.** Losing up to 26% (225217 ha) of Mpumalanga's high potential arable land.
- **Water Quality effects.** Acid mine drainage is making available water unsuitable for human consumption and contaminates ground water.
- **Mining Health Risks.** Studies show that residents in coal mining communities have a 70% greater risk of kidney disease, 64% greater risk of lung disease (like emphysema) and are 30% more likely to report high blood pressure.

### Conflict and consequences

Exxaro has already directly rendered thirteen farms useless for contributing to South Africa's food security through their Leeuwpaan Colliery. Various wetlands and pans have been destroyed, marginalised or threatened by the colliery, jeopardising the supply of clean water to the Bronkhorst River and the Loskop Dam irrigation scheme, and jeopardising national water security. Not surprisingly, the legality of Exxaro's activities is under scrutiny. Nigel Adams, Director of Compliance Monitoring and Enforcement in the Department of Water Affairs observed for instance:

According to the Department's records, no water use authorisation for the above water uses were issued as there is no rehabilitation plan for the area, including post-mining water treatment, as the watercourse feeds the Bronkhorstspruit Dam, Olifants River and Loskop Dam. 3 July 2013.

Exxaro is also being challenged by the media and government, yet on their website they insist on the legality of their actions at Weltevreden Pan.

#### More on this case

- Exxaro Leeuwpaan press release: <http://www.exxaro.com/index.php/exxaro-leeuwpaan-mine-operating-lawfully/>
- businessday live: leeuwpan breaching water license <http://www.bdlive.co.za/articles/2012/05/16/exxaro-accused-of-breaching-water-use-license;jsessionid=E109247E057A2933EA8DA69CD83F6140.present1.bdfm>
- Mail and Guardian: Delmas farmer lodges complaint against Exxaro <http://mg.co.za/article/2012-05-14-delmas-farmer-lodges-complaint-against-exxaro>
- News24: Farmer goes to Blue Scorpions over Exxaro <http://m.news24.com/news24/SouthAfrica/News/Farmer-goes-to-Blue-Scorpions-over-Exxaro-20120514>
- Natural Water Body threatened by large mining company <http://www.ejolt.org/2012/11/natural-water-body-threatened-by-large-mining-company/>

## Chronology of events

1989 – Exploration starts at Leeuwpán  
 1992 – First boxcut developed at Leeuwpán  
 1995 – Erection of a pilot crushing and screening plant at Leeuwpán.  
 1997 – Commissioning of a dense-medium plant at Leeuwpán  
 1999: Eyesizwe Coal Registers (previous owner of Leeuwpán Colliery)  
 2001: Kumba Resources unbundled from ISCOR and listed on the JSE  
 2005: Jig Processing plant commissioned at Leeuwpán.  
 2006: Kumba Resources merges with Eyesizwe Coal and relists as Exxaro  
 2011: Farmers notice a trench around the Weltevreden Pan Wetland, dug by the Exxaro Leeuwpán Operation.  
 2012 (16 May): Site visit to Exxaro Leeuwpán (incl Weltevreden Pan) by the Department Water Affairs (DWA) who issued and 'intention to issue a directive.  
 2012 (11 June): DWA issues directive to Exxaro, to stop their operations at Weltevreden Pan  
 2012 (13 July): Exxaro appeals to the Water Tribunal.  
 2012 (August): The Water Tribunal disbands.  
 2012 (17 August): The Democratic Alliance enquires to the Minister of Water Affairs in parliament (National Assembly) . The minister confirms that Exxaro stopped mining in the Weltevreden Pan.  
 2012 (28 September): Exxaro was witnessed actively mining in the Weltevreden Pan again  
 2012 (22 November): Exxaro appeals to the high court, and the directive is set aside until the Water Tribunal can be re-established.  
 2013 (19 March): DWA appeals the High Court decision, and then withdraws the appeal.  
 2013 (24 June): Exxaro's Leeuwpán Operation recommenced with mining at the Weltevreden Pan.



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## References

- Van der Burgh, Meyer, Coertzen. (2012). Evaluating the impact of coal mining on agriculture in the Delmas, Ogies and Leandra districts: A focus on maize production. A report by BFAP, Compiled for the Maize Trust.
- McCarthy, T.S., Pretorius K. (2009) *Coal Mining on the Highveld and its implications for future water quality in the Vaal river system*.
- Exxaro Company Profile <http://www.exxaro.com/>
- Leeuwpán Profile [http://www.exxaro.com/?page\\_id=221](http://www.exxaro.com/?page_id=221)
- Mining Weekly's article on Leeuwpán's Profile 2007. [miningweekly.com/article/leeuwpán-coal-mine-2007-01-26](http://miningweekly.com/article/leeuwpán-coal-mine-2007-01-26)
- Mining Weekly's article on the merger of Eyesizwe and Kumba [miningweekly.com/article/kumba-eyesizwe-merger-to-be-approved-conditionally-2006-07-21](http://miningweekly.com/article/kumba-eyesizwe-merger-to-be-approved-conditionally-2006-07-21)