

Is the BAR set too low?

The EIA vs BAR debate is at the heart of the Fairbreeze developments. Robbie Gleimius, the programme manager for Exxaro Sands projects, answers the tough questions.

Why did Exxaro not do a new full EIA for Fairbreeze in 2011?

To answer this question, I have to go back in history.

Back in 1998, the original KZN Sands project consisted of Hillendale, Fairbreeze (excluding Fairbreeze C Ext ore body) and the processing plants outside Empangeni. In line with legislation of the day, a full environmental impact assessment (EIA) was completed and approved. Economic considerations, however, resulted in only Hillendale being developed at the time.

Subsequently the project underwent several changes. One such configuration was proposed for implementation during 2006.

Again a full environmental assessment was completed. By 2008, the then proposed Fairbreeze mine had received all the required approvals to commence mining. The global financial crisis in 2009, however, forced Exxaro to place the project on hold.

When the market recovered in 2010, Exxaro re-assessed the feasibility of Fairbreeze and found it was viable once again, provided that a few changes were made. This included reverting to the original larger mining area, revising the residue dam, and moving the wet plant further away from the town.

These changes, together with Exxaro's proactive approach to comply with changes to legislation, meant that we had to do another environmental assessment. The National Environmental Management Act (NEMA) of 1998 allowed us to apply to the Department of Agriculture, Environmental Affairs and Rural Development (DAEARD) to follow the basic assessment route,

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Robbie Gleimius

What do you think?

Welcome to the first edition of **fairtalk**. The newsletter is published by Exxaro's KZN Sands operations with the purpose of keeping stakeholders informed about the Fairbreeze project.

Exxaro's opinion, however, is not the only one reflected; as its name suggests, **fairtalk** wants to look at the issues from different points of view, giving different voices a fair hearing. Whenever possible, we will ask an expert to clarify, explain or give an opinion.

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We look forward to hearing from you.

Op soek na 'n vertaling?

As jy enige van die artikels in hierdie uitgawe in Afrikaans wil lees, laat weet gerus vir Natalie Keegan: 035 902 7840 / Natalie.Keegan@exxaro.com.

Ngabe uyafuna yini ukuba kutolikwe? ngesiZULU?

Uma udinga eminye yemibhalo edidiyelwe ngesiZulu ungaxhumana no Natalie Keegan: 035 902 7840 / Natalie.Keegan@exxaro.com.

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or BAR, instead of a full EIA. We took an informed decision to do this, and the DA-EARD approved our application.

Why does NEMA allow a BAR instead of a full EIA?

The Act says that if an applicant intends to undertake an activity that requires an environmental impact report, it may apply for permission to undertake either a BAR or a full EIA. The decision for the application rests, firstly, on the advice of the independent environmental assessment practitioner who is managing the application and, secondly, on the applicant's view that it is likely that the competent authority can reach a decision on the basis of information provided in a BAR.

Why did you feel that a BAR would be sufficient?

We already had numerous authorisations based on the extensive specialist studies that had been done on the proposed Fairbreeze mining area over more than 10 years. Consequently, the majority of the issues associated with the project had already been identified. Undertaking

The 2011 BAR specialist studies covered:

Biodiversity; Air quality;
Groundwater; Surface water;
Socio-economic impacts;
Heritage; Noise impacts;
Visual impacts

the full EIA process would have repeated this work. Instead we could put our effort into assessing the issues and including the cumulative impacts identified in the studies.

What did the 2011 Fairbreeze BAR entail?

The comprehensive impact assessment included 11 specialist studies, the majority of which were formulated and built on existing studies and which complied fully with the NEMA BAR requirements.

Where can people find copies of the BAR?

At the Mtunzini offices of ACER, the environmental consultants.

What is the difference between an EIA and a BAR?

The National Environmental Management Act provides for two assessment processes that can be used to conduct an environmental impact assessment (EIA):

- 1 The basic assessment report (BAR).
- 2 A scoping and environmental impact report (S&EIR), also known as a full EIA.

The scoping phase of the full EIA is done to provide detail on the baseline environment of a project, and to identify potential impacts and feasible and reasonable

alternatives. It also sets the plan of study for the environmental impact report, which includes a selection of specialist studies.

A BAR is a scoping and environmental impact assessment process collapsed into one and contains all the information necessary for the competent authority to make a decision on the application.

The assessment requirements for the two processes are very similar.

Making a play for tomorrow

Investing in the future

SMALL CHILDREN playing away the day at their local crèche is an unusual sight in rural KZN where pre-school facilities are rare. As a result, many rural children are woefully unprepared for "big school".

In response to this situation, Exxaro's KZN Sands operation decided in 2007



to open a crèche in the Somopho community about 4km down the road from its Central Processing Plant (CPC) outside Empangeni. The company built and furnished the facility and trained three unemployed rural women to become qualified teachers with the help of the Department of Education and Social Development. After two years of Exxaro assistance,



Somopho Crèche started receiving government grants while parents pay R50 per month in school fees.

The children receive two full meals and an afternoon snack every day. The crèche currently has 110 children, three teachers, a dedicated baby minder and a woman who prepares all the meals. The school has a formal Grade R class that prepares the children for primary school.

Before Exxaro handed the school over to the community, it trained the governing body, ensuring the necessary management skills and expertise were in place. Many Exxaro employees volunteer their time and resources to the Somopho Crèche.

A new home for KZN Sands

ON 26 SEPTEMBER, Exxaro announced that it had reached an agreement for its mineral sands business, which includes KZN Sands, to become part of a new global, integrated mine-to-pigment company.

Following the transaction, Exxaro will own 38,5% of the new company and the shareholders of Tronox Incorporated, the world's fifth-largest titanium dioxide pigment producer, will own the rest. In the new company, the full mining to pigment production process will reside in one business. As a result, the Fairbreeze deposit will become part of one of the largest worldwide mineral sands feedstock production chains.

What this means for KZN Sands

The Exxaro-Tronox transaction will give added security to KZN Sands as it will become part of a global, integrated production process. The new company will also assume the funding of about R2,4 billion needed to develop the Fairbreeze mine.

Who is Tronox?

Exxaro and Tronox have been doing business together for 20 years. The two companies each own 50% of Tiwest, a mineral sands operation in Australia, and Tronox's pigment factories in the US and the Netherlands have been buying ore produced at Empangeni.

The new company will ...

EMPLOY **3 500** PEOPLE
IN **16** LOCATIONS
WORLDWIDE AND
HAVE APPROXIMATELY
1 100 CUSTOMERS
IN **100** COUNTRIES

The hills come alive!

A decade after mining at Hillendale first started, the red hills around the site are rapidly regaining their green.

TO DATE Hillendale has rehabilitated almost 25% of the 232 hectares available for rehabilitation. Sixty hectares have been planted with sunn hemp, which is creating a fertile ground for the seed cane that is to eventually replace it. The sugar cane will initially cover nine hectares of the rehabilitated area while the remainder is being backfilled or receiving a special soil mix. This is all the sugar cane Hillendale can plant in the 2011 growth season, explains Brett Cocks, the chemical engineer responsible for hands-on rehabilitation at the mine.

“We can only plant sugar cane from this particular area. The SA Sugar Growers Association has extremely strict disease control measures in place which prevent us from bringing in cane from other areas.”

Hillendale, like any other sugar cane grower in the Mhlathuze Municipality, has to apply for an annual quota of seed cane. For the 2012 season, one of the local farmers will have to grow Hillendale’s quota in a dedicated paddock. “Once the association has certified it as pest- and disease-free, we’ll be able to plant. It will take us a few growth seasons before we can supply ourselves with seed cane,” says Brett.

No quick fixes allowed

Hillendale’s environmental management plan dictates that the mining area has to be returned to its previous land use, namely sugar cane growing. Well before Exxaro even started mining at Hillendale, experiments into sugar cane growth on mined dunes started. The quick fix would have

BEFORE

been to apply the standard mine rehabilitation techniques, allowing Exxaro to rapidly cover mined areas with vegetation. That, however, would have been like giving a rusted old car a new paint job; it looks nice for a while but does not solve the engine problems. “We decided to rather work with soil scientists and develop a sustainable rehabilitation methodology,” explains Brett.

The first step is to cover the sandy dunes with layer upon layer of soil mix. Once the soil is there, it has to be treated to ensure sugar cane will grow in it. Finding the right recipe was the primary focus of the research that Exxaro did in conjunction with the universities of Zululand and the Free State as well as the SA Sugar Research Institute.

Once the dunes have been coated with the mix, they are left for at least six weeks to dry before the area is ploughed by tractor and planted with sunn hemp. This fast-growing legume helps to return nitrogen and organic matter to the soil. By the end of September, 15 tons of sunn hemp was already turning Hillendale green.

As soon as the sunn hemp starts flowering, the paddocks are ploughed again to work the plants into the ground where they then work their nutrient magic. Only then can the sugar cane go in.

What took so long?

The main reason for the slow visible rehabilitation at Hillendale was all the preparation that went into the dunes. It is important

to remember, says Brett, that green is only the final phase of a rehabilitation process. “Backfilling and shaping of the dunes occurred progressively after mining. Preparing the soil was the most important and time-consuming part. Now that we have perfected the recipe and our technique, things are Hillendale are changing from day to day.”

Furthermore, the fact that Hillendale is an operating mine means that certain areas cannot be rehabilitated as yet. This includes the residue dam specifically.

Rehabilitation is a dynamic process and Exxaro continuously gets advice from the experts to refine its techniques.

PREPARING FOR FAIRBREEZE

As with Hillendale, the Fairbreeze environmental management plan also dictates that the mining area has to be returned to its previous land use. In this case it will be eucalyptus plantations.

Having learned from Hillendale, Exxaro will start with trials to see how eucalyptus trees grow best in reconstituted soil. “The mining method and soil characteristics at Fairbreeze are the same as at Hillendale. This allows us to experiment – with the assistance of Mondi and other experts – to optimise the eucalyptus yields,” says Brett.

FOR THE 2011 PLANTING SEASON, EXXARO IS BUYING **1 500 tons** OF COMPOST FROM COMMUNITIES AND FARMERS AROUND HILLENDALE.

TOTAL REHABILITATION COST TO DATE: **R1.1 million** PER HECTARE





Bongliwe Mtshali from Gabadala Laundry sorts the washing at the Hillendale on-site facility.

A forum for the future

During 2011, more than R7 million has flowed into the six Amakhosi areas surrounding the Exxaro KZN Sands operations. Far from being handouts, these contracts are an investment in the sustainable future of Zululand.

THE EXXARO KZN SANDS PROCUREMENT FORUM was established about two years ago, says Annalien Fouché, KZN Sands' sustainable development manager. "The main reason for the forum was to establish sustainable businesses so that the area would not suffer if our operations one day close down. The best way to do this, is to give people business training and access to certain contracts. In addition to the commercial benefit for both parties, our relationship with our closest neighbours also improved dramatically."

Sam Mthembu, the chairperson for the Amakhosi representatives who are members of the Procurement Forum, agrees.

"Before, Exxaro was our enemy number one; now we see it as our company." Sam makes it clear that the contracts won by the local businesses are not handouts. "The day my laundry contract started, the financial manager told me that this is a critical contract. If I don't deliver, the machines inside the factory cannot run because we clean the workers' safety clothing. There are non-conformance clauses in our contracts; this is real business."

The forum meets once a month and Sam explains how it works. "Exxaro tells us what contracts are available, for example cleaning of roads. We then decide which

of the six areas will tender for it. We make sure that everybody gets a chance and Exxaro does not get involved in our internal discussions."

More than money

According to Annalien, the forum members also receive training regarding tender procedures, technical terminology and business ethics. "We assist the communities with their first safety clothing, such as overalls and safety shoes, and carry the costs for induction, medical examinations and the initial training when a contract is awarded. We are currently awarding the security contract for Fairbreeze mine to one of the communities in the Fairbreeze area. The training alone of the 30 people we need will cost Exxaro about R150 000."

Exxaro has told me how to run a laundry business. If the mine closes, I have a sustainable business with which I can go to other companies. Even if Exxaro is no more, we can still live.

Sam Mthembu



Above: Tower Scaffolding provides scaffolding to the KZN Sands sites.

Below: Sipho Mnyayi (white shirt) and his team deliver fertilizer to Hillendale.



R7 156 655
THE VALUE OF COMMUNITY CONTRACTS IN 2011

90 JOBS
HAVE BEEN CREATED THROUGH THESE CONTRACTS

TO DATE
SEVEN
COMMUNITY CONTRACTS HAVE BEEN AWARDED

Wumnnotho Kasomopho (front) cleans roads and certain plant areas at Hillendale and CPC.



- The six Amakhosi areas represented on the Procurement Forum are:
- Somopho Traditional Authority, near the Central Processing Complex outside Empangeni.
 - Dube Traditional Authority, near Hillendale.
 - Mkhwanazi Traditional Authority, in the Port Dunford area.
 - Ogagwini Traditional Authority, close to the Fairbreeze mine area.
 - Nzuza Traditional Authority, close to the Fairbreeze mine area.
 - Macambini Traditional Authority, close to the Fairbreeze mine area.



de-bunking THE MYTHS

FALSE Mtunzini will become a typical construction and mining town, overrun with traffic and cheap housing.

TRUE There will be no construction village during the construction phase of the Fairbreeze project. Exxaro will employ local contractors as far as possible and will therefore not provide any temporary housing.

The majority of Hillendale's current employees will move to Fairbreeze. They live in the area already, hence there will be no need for additional "mine" housing.

Should Fairbreeze need to employ people, Exxaro will first recruit from local communities so that people will not have to relocate.

There will be no heavy vehicle mine traffic through Mtunzini as Exxaro will build a new on/off ramp linking the mine to the N2. All heavy mine vehicles will therefore bypass the town.

Strictly speaking, a mining town is one where the entire community depends on the extraction and processing of minerals. The town's fortunes change with those of the mine and once the mining operations are completed, the town dies. Mtunzini does not depend on Fairbreeze for its existence, although local businesses, especially restaurants and accommodation establishments, are likely to benefit from the development in the town.



Hannes Minnaar welcomes the fact that Mtunzini is changing from a "secret little paradise" into a "proper town" as this will make it more attractive for businesses.

Mtunzini's mine man

FOR AS LONG as he has been on the Fairbreeze project team, Hannes Minnaar has lived in Mtunzini. His neighbours think he works for the enemy, but Hannes has no such qualms. "People in town moan about the mine and Exxaro, but they are not angry at me as a person. I imagine this is what it felt like to be an Eskom employee during the load shedding in 2008."

Hannes understands the residents' concerns: "Mtunzini used to be a secret little paradise. People could afford to buy a holiday home here and it was perfectly safe to leave your house locked up for most of the year." The holiday village, however, is turning into a proper town, complete with a security estate and industrial activity.

One of the positive spinoffs is the new, and younger, people who have moved into Mtunzini. Better business prospects are another. "Several businesses in town often change hands because there is not enough turnover to keep the doors open. As the town grows, it will become more attractive to open a business here."

The Minnaars did exactly that a few years ago when the River Estate development first started. They identified an opportunity and today Hannes' wife runs a tool hire company.

Hannes is one of many Exxaro contractors and employees who live in Mtunzini, and he hopes to do so for many years to come. When the issuing of the mining licence delayed Fairbreeze between 2005 and 2008, Hannes left Exxaro and became a consulting engineer. When the project was revived in 2009, he was contracted to be the team's mechanical engineer.

Insider knowledge sets Hannes' mind at ease. "I have worked for Iscor, Tidor and then Exxaro for more than 10 years and I know how the company operates. Mining houses do mess up occasionally, but there is good legislation in place to bring them to book and rectify their mistakes. Through legislation, compulsory audits and the power of public participation, there are enough checks and balances to ensure that Mtunzini will not be ruined."