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# Agriculture and mining in the Beira Corridor

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## Agriculture and mining in the Beira Corridor

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#### **Abstract**



The Beira Corridor of Mozambique is a natural transport corridor between the coast and neighbouring inland countries in the region. It is rich in resources, with very large reserves of coal and agricultural land. More than half (60%) of the Tete region in the corridor is reserved for mining, with two large international companies already operating there. These are expected to develop road, rail and ports in the region, besides employing thousands of workers, though that number will drop considerably when construction is complete. The companies have already resettled hundreds of local people, mainly

subsistence farmers, to free up the land for mining. The miners need also to provide houses and social amenities to these displaced people. At present, neighbouring countries produce the food for the companies' employees involved in the mining operations, and there is not always enough. While the mining companies see this as a procurement problem, our institution, the Beira Agricultural Growth Corridor (BAGC), considers that long-term development of agriculture in the region would be a valuable solution. The BAGC is stimulating linkages between mining and agriculture by structuring demand and developing supply chains involving local producers. It is clear that mining offers opportunities for agriculture via improved infrastructure, and the mining companies' need for food gives local farmers a nearby market, especially during the construction phase. The role of the BAGC is to create incentives for local sourcing, and to develop core investment in local agricultural development.

This talk is about the relationship between mining and agriculture in the Beira Corridor of Mozambique, and initiatives to support and improve the ways these sectors could potentially interact.

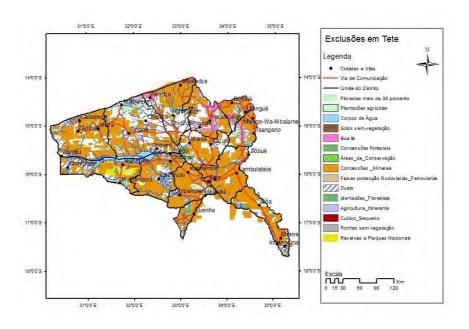
The Beira Corridor is a transport corridor linking the port of Beira on the coast with other inland countries in the region, particularly Zimbabwe, Malawi and Zambia (Figure 1a). It is an old corridor, and what is interesting about it is that besides its relatively good transport network it also has very diverse microclimates that allow many different types of agriculture to take place.

From a national development point of view, the Beira Corridor is considered a potential breadbasket area for the development of Mozambique as an agricultural producer. Therefore partners in agriculture, including the Government, the private sector and donor agencies, have together formed the 'Beira Agricultural Growth Corridor' (BAGC), an institution which is mobilising resources to invest in improved agricultural services and transport, and to support farmers.



Figure Ia. (top) Map of Mozambique, showing the Beira Corridor, a natural land corridor linking the coast and inland neighbouring countries.

Figure 1b. (below) Land uses in the area of Tete, in the north-western part of the Beira Corridor. Land coloured orange is reserved for mining.



Mozambique is rich in natural resources. These days there is always somebody announcing the biggest of something. The 'biggest of gas fields' came on stream recently. For a couple of years now there has been talk about the 'biggest coal fields'. One of these coal mining resources has been discovered in the Beira Corridor in a geographical area called Tete, where it is estimated there are over 23 billion tons of coal.

The map of the province of Tete (Figure 1b) shows the declared concession areas for mines and mining, mainly coal — that is, all the areas coloured orange. About 60% of the land area has been identified for the purposes of exploration for minerals, and only 40% is available for other purposes, so it is important to have a workable relationship between mining and agriculture in this region.

The relationship between mining and agriculture will probably be different from one part of the world to the other, or from one country to the other. Here in Western Australia, we have heard how mining capital and mining resources are being channelled to develop agriculture; so the miners are investing in agriculture. In our part of the world the issue is that mines are competing with agriculture for space, and therefore the reality is that miners have to work with agriculture.

The two largest exploration projects that are already on the ground in Tete are run by Vale, which is a Brazilian company, and by Rio Tinto. A third, British, project is likely in the future, but Rio Tinto and Vale are there now and have started producing some interesting results.

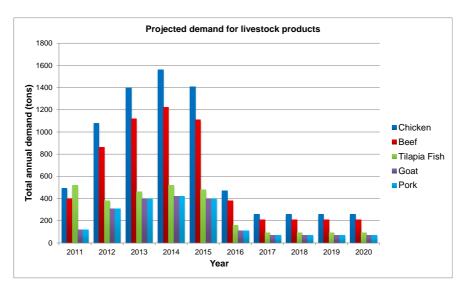
Naturally the Vale and Rio Tinto operations have caused some disturbance; they have displaced people that occupied the areas that they are working on. Between them these mining operations have displaced close to 20,000 families. There is a great deal of debate about the quality of resettlement — in other words, the poor quality of resettlement in terms of the houses that the people have had, and the fact that people have been settled in non-agricultural areas with limited water resources. The companies are addressing these issues, and improving their image.

## Potential for benefits from the presence of mining companies

This year these mining companies are expected to begin contributing to improvement of the region's infrastructure. There are discussions about new railway lines running across the countryside linking regions and the port areas, which will bring positive benefits. Also, new road networks are to be built, with contributions from the mining companies which, at the moment, are tending to overuse the few roads that exist!

The mining sector, from the point of view of the BAGC, appears to have potential for creating demand for agricultural produce, and this is particularly so during the mines' build-up phases. Vale, for example, is reporting right now that they have 10,000 workers on the ground in various activities, although once the mine is fully operational this will be reduced to about 2000 workers. It appears there is a significant window of opportunity in the next couple of years as all the various mine projects start up.

According to some estimates, there could be around 1500–1600 tons of various food products required annually, between Rio Tinto and Vale. The graphs in Figure 2 show projected demand for meat and fish products, and also horticultural commodities. There appear to be good prospects in the next three years for tapping into that demand from the mining sector.



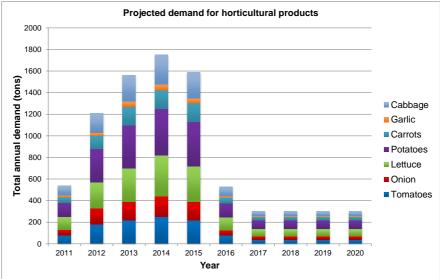


Figure 2. With thousands of workers needed for mine construction, demand for food supplies in Tete is expected to be large until 2015, settling to a lower steady level later.

The BAGC considers that a range of sustainable options can be explored, including irrigated agricultural development. The perennial Zambezi River is not very far away, and with just a few million dollars investment it could supply water for sustainable irrigated agricultural development. The BAGC, the Government and others think that is possible.

The BAGC has also identified other opportunities associated with the mines. At the moment the food requirements of these mines are being carted in from South Africa, Zimbabwe, Malawi and other places, in containers. That reality

shows the BAGC that there is an opportunity for providing these products from local sources. However, in the Mozambique environment, because of its history, farming is under-resourced. It requires deliberate action to get funding off the ground, as the BAGC is now trying to do.

### Role of the BAGC

We have been talking with the mining companies, with some success, to try to make it possible for local farmers to supply the products that the mine workforces need. The mining companies view the relationship with agriculture as purely a procurement issue, which essentially means that volume, prices, timing and so on are the most important considerations to them.

The BAGC has been trying to get the mining companies to think beyond their fencelines and see how they can use their demand to generate positive procurement, so as to sustain demand for agricultural products through the coming years. What is required is to align procurement procedures to provide incentives for local sourcing. We had made good progress with one company in this regard. Unfortunately, whereas the relationship between mining and agriculture is obvious and real to us, many mining executives do not see it as obvious at all. We were working with a set of mining executives who understood the relationship. Then they were all fired for one reason or another by their company, and we are now back at the drawing table because the new mining executives do not see the relationship with agriculture in the same way.

In the BAGC we do not expect mining companies to develop agriculture. However, we do expect that mining companies can provide opportunities to partner with those whose core business is agricultural development so they can take the opportunities provided by that mining 'window'. There are particular examples where this is happening, for example in horticulture. A big horticultural concern in the Beira Corridor is using its facilities to work with small farmers to grow produce that meets the specific requirements of one of the mining companies (Figure 3): Vale, in this particular case.

There is a need to align procurement procedures, so as to provide incentives for local sourcing. In structuring demand, it is necessary to align payment cycles between mining company, caterers, retailers and farmers, so that there is greater security and smoothness in the cash flow. The BAGC also engages in supply chain development. We identify potential local supply opportunities in the region (including start-ups, early stage agribusinesses, and large-scale and small-scale producers). We involve farmer organisations in capacity-building so as to improve production techniques. We arrange affordable loans and working capital to make production possible; and plan to invest in a food logistical hub to aggregate volume and cold storage logistics.

The BAGC Catalytic Fund helps provide finance to producers of high-quality seed, and of grains, starch and animal feed, and of pork and poultry. These producers in turn then connect with major private-sector purchasers, and nutrition programs. The grain producers also have a market in the beer and alcoholic drinks sector.



Figure 3. With support from the BAGC, Vanduzi (a large-scale horticultural company) has engaged smallholder farmers as its partners in producing horticultural commodities for the mining market. These smallholders are organised into associations which have been producing chillies, snow peas and sugar snap peas as well as fine beans.

The key message is that, yes, mining can offer opportunities for agriculture and improved infrastructure. It can also purchase produce, so long as the executives accept the issue of positive procurement. It is important to work on the relationship, to create the incentives for local sourcing, and also to encourage the investments that are necessary to build up the supply response. I am aware that it has been possible with the United Nations World Food Programme, for example, to 'purchase for progress', and it may be possible to have the mining companies in Mozambique behave in the same way.

Mr Emerson Zhou is the Executive Director of the Beira Agricultural Growth Corridor (BAGC), a Public Private Partnership that aims to promote investment in the agriculture sector in central Mozambique by facilitating entry by socially responsible investors who are willing to develop business models supporting smallholder farmers. Mr Zhou is an Agricultural Economist with over 25 years' experience in managing 'inclusive' agribusiness support initiatives in Africa. A recent initiative involves promoting linkages between the emergent coal mining sector and farmers within the Beira Corridor of Mozambique. Mr Zhou holds agricultural economics degrees from University of Zimbabwe (BSc) and University of London (MSc) as well as an advanced Diploma in Accounting and Finance.

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