

BAGC Value Chain Market Demand Analysis

This annex provides a summary of market demand analysis conducted for crop value chains in the Beira corridor.

Agricultural production and market potential of Beira Corridor

Crop	Market demand potential			
	Short-term (3 - 5 years)	Market	Long-term (by 2030)	Market
Banana	125,000	RSA, Zimbabwe, Middle East	600,000	Also international
Citrus	10,000 - 20,000	RSA, Zimbabwe, Middle East	400,000	Also Europe and USA
Mango	5,000-10,000	RSA, Zimbabwe, Middle East	100,000	Also to Asia
Litchi	1,000	South Africa	10,000	Also to Europe
Wheat	400,000	Mozambique	Unconstrained	Also regional
Rice	360,000	Mozambique	Unconstrained	Also regional
Soybean	250,000	Mozambique	Unconstrained	Also regional
Sugarcane	5,000,000	International	Unconstrained	International

Source: InfraCo estimates

Bananas

World banana exports are projected to reach almost 15 million tonnes in 2010, with India, China and the Philippines as the largest producers. If current annual growth rates of 3% continue the export market could approach 30 million tonnes by 2030.

Mozambique has a long history of banana production, including in the Beira Corridor, but the industry was virtually destroyed during the civil war and is only now beginning to show signs of recovery. There has been significant new investment in Maputo Province, which has the advantage of being close to the South African market (18,000 tonnes of bananas were exported in 2007). There is also a large new banana plantation in Nampula, with support from Chiquita International, the world's largest banana company. Current production in the Beira Corridor is very low, with just 70 hectares under production.

Markets for bananas are available regionally – in particular Zimbabwe and South Africa – and in the longer term to the Middle East, once sufficient scale has been achieved to make shipping from Nacala and/or Beira ports cost effective. In 2006, the World Bank estimated Mozambique's regional export potential to be 125,000 tonnes of bananas per year, to Zimbabwe (50,000) and South Africa (75,000).

Producers in the Beira Corridor benefit from proximity to the Zimbabwe market, but to compete for other markets with larger operations in Maputo and Nampula they will need to demonstrate they can achieve high yields and quality standards on a competitive cost base.

The long-term market demand potential for banana producers in the Beira Corridor is difficult to assess. If Mozambique is able to establish an international reputation as a source of high-quality bananas, it is conceivable that over a twenty-year period 10,000 hectares could be put under production resulting in 600,000 tonnes of exports.

Citrus

In 2006/2007, world citrus exports totaled over 6.6 million tonnes. Citrus fruits, which include oranges, grapefruits, lemons, limes, and easy peelers, are primarily traded in the fresh fruit and processed citrus fruit markets. The largest world citrus importer in 2006/2007 was the European Union at 2.1 million tonnes, followed by Russia, Canada, and Japan.

Brazil and China are the top producers of citrus, followed by the United States, Mexico and Spain. Citrus production for these countries was forecasted to total about 71 million metric tonnes in 2007/2008. Due to new fruit bearings and favorable weather, China has rapidly increased its production and is emerging as a major challenger to Brazil's status as the largest producer. Forecasts for South Africa's production increased to 1.3 million tonnes in 2007/2008. South Africa's largest export markets are the Netherlands, United Kingdom, the United Arab Emirates, and Russia.

In the 1970s, Mozambique was a significant exporter of citrus, with some 11,000 tonnes of grapefruit and 7,000 tonnes of oranges exported via the South African single channel marketing organization, Outspan. This was produced by between 15 and 20 citrus farms, the majority of which were situated in Maputo Province and in Manica. Citrus output, along with other horticultural products, declined as a result of civil war and drought resulting in only six estates still producing citrus exports in the 1990s. With political and social reform, citrus exports began trending upwards in 2004. In 2005, there was approximately 120 hectares of commercial citrus production in Mozambique, but with only 10 ha in the Beira Corridor.

The corridor is ideally suited for export of horticultural products to these growing markets and there is opportunity to tap into the counter seasonal market for the European Union, Middle East, and the United States. However there is currently a lack of understanding of the exact quality and market requirements, which will need to be researched thoroughly. In the short-term it will be difficult for Mozambican producers to compete with South Africa for international export markets. Whilst, it is possible that Mozambique might be a little earlier than South Africa, it is doubtful whether this would translate into significantly higher average prices across the whole season.

In the short term, producers in the Beira Corridor are likely to be able to sell to Zimbabwean and South African citrus marketing firms, topping up their existing supply base. Over a twenty year period, assuming economies of scale can be achieved and with a cost effective route to market via Beira port, it may be possible for producers in the Beira Corridor to reach markets further afield in the Middle East, Europe and the United States. In this scenario it a production target of 10,000 ha, or 400,000 tonnes per annum, would seem reasonable.

Mango

Mangoes account for 50% of the tropical fruit produced worldwide¹. India was the largest producer in 2007, at 13.5 million metric tonnes. However, most mango consumption is domestic and less than 3% (750,000 tonnes) is exported. Mexico and other Latin American countries, mainly Brazil, Colombia, Ecuador, Guatemala, Haiti, Venezuela, and Peru are primary exporter countries to North America and the European Union. Pakistan and India are major suppliers to Asia and the Middle East.

The Beira Corridor has a mango-harvesting period that is counter seasonal to the northern hemisphere and that begins 10 to 14 days prior to its regional competitor, South Africa. If the right varieties can be grown, the most promising markets for mangoes from Mozambique are therefore in South Africa, the Middle East and Asia. Major competitors would be Brazil and Australia.

Existing producers in the Beira Corridor are successfully supplying South African and regional markets with low volumes grown on 182 ha. In the short-term this production could be scaled up relatively quickly, perhaps to 5,000 tonnes, without saturating market demand. Over a twenty-year period a target of 100,000 tonnes of exports per year could be targeted, if Mozambique is able to break-into the Middle East and Asian markets.

Lychee

A niche crop, lychee is a tropical tree fruit with a short harvest season and a short shelf life. The product is sold fresh but is also processed as a canned product. The leading lychee producing countries include China, India, South Africa, Australia, Mauritius, Madagascar, and Thailand. Less than 5% of the world's production, or approximately 100,000 tons, enters into world trade on an annual basis.

Currently, lychee is grown at a small scale as a cash crop in the Beira Corridor. Most families have between 5 to 10 trees. There are also three farmers in Manica and Sussenda, all of whom supply the domestic market.

There is demand for lychee regionally, in South Africa, and in the international markets, particularly the European Union and the Middle East. Lychee production in Mozambique is pre-seasonal to that of South Africa's, providing in theory a two-week window for a captive market. The EU market size is about 35,000 tonnes with well over half consumed in France. About 80% of the supply to the EU comes from Madagascar.

Producers in the Beira Corridor should be able to sell (relatively low) volumes into South Africa potentially Europe if they can bring crop to market before other regional competitors. However, in the longer-term it would make sense to focus on the Asian markets by introducing the appropriate varieties. If producers in the Beira Corridor were able to capture 10% of the current world export market for lychees, about 500 ha of commercial production could be supported.

Wheat

¹ TechnoServe. "Business Opportunities and Challenges in the Beira Corridor," September 2008.

There is a significant local market opportunity for wheat; probably in the order of 350,000 to 400,000 tonnes to replace current imports. This production would be worth over USD100 million. With average yields of 6 tonnes/ha, this would represent 60,000ha to 65,000ha. However, great care would be needed to identify locations in the Beira Corridor that are cool enough, have sufficient irrigation potential and be level enough for centre pivots to operate.

Over a twenty year period demand for wheat in the region is likely to increase and there may be opportunities for Southern Africa to become a major exporter to the rest of the world, including China. Agronomic conditions are therefore likely to be more of a constraint on wheat production in the Beira Corridor than market demand.

Rice

The opportunity for local production to substitute for rice imports in Mozambique is also high. Mozambique ties with South Africa for the highest per-capita consumption of rice in Southern Africa, with per capita consumption estimated to be 14kg/ year.

The country currently imports over 360,000 tonnes per year. Although domestic production is increasing there is currently no large-scale commercial production (with the exception of a start-up operation in Chokwe). Growing conditions are not ideal in large parts of the Beira Corridor, but there are some promising areas in Sofala province which could be put under irrigation to supply 100,000 to 150,000 tonnes per year of rice for the local and South African market.

Long-term market demand for rice in Mozambique and the wider region is expected to grow faster than population, because consumers tend to substitute rice for other cheaper staples as they become wealthier. It is therefore likely that the productive capacity of the Sofala region will be used up before market demand is saturated.

Soyabean

Soy is the world's second largest cash crop, behind maize. It is used for vegetable oils and in feed cakes for poultry. Currently the United States, Brazil, and Argentina account for almost 90% of the export market for unprocessed beans. However, nearly all of the US crop is genetically modified, and Brazil uses much of its processed meal for its internal poultry market. Argentina is therefore the largest supplier of the soy cake used in Mozambique.

Demand for soy is expected to increase on every continent as demand for animal increases with the growth of the middle class in China and India. The price of soy oil is also expected to remain high. The US Department of Agriculture projects that in the next ten years, US supply will continue to be constrained, and that Brazil will evolve into the world's largest producer. China is expected to be the world's largest consumer of soybeans, absorbing 80% of all imports by 2018. The area with the greatest potential for production growth is sub-Saharan Africa.

In the short-term there is likely to be reasonably strong local demand for soy, but low margins mean it is unlikely to be a major commercial crop in the corridor except as a double crop for other more profitable field crops such as wheat. Longer-term, producers in the Beira Corridor have the opportunity to access this expanding world market, although

competition from Southern America will be intense and margins are likely to remain tight for the foreseeable future.

Sugarcane

Sugar cane is a tropical and subtropical crop used to produce sugar, molasses, alcohol, and ethanol. The main producers of sugar cane are Brazil, India, and China, with a combined production totaling more than 100 million tonnes per year.²

Mozambique has four operational sugar mills that are expected to produce around 295,000 tonnes of sugar in 2009. Two of the sugar mills are owned by Tongaat-Hulett group and are located in Maputo (Xinavane) and Sofala (Mafambisse) Provinces. An investment of around \$177 million has been planned for the expansion of these two mills.

There is interest in cultivating sugar cane for fuel-grade ethanol in Mozambique. The Government has approved an 18,000-hectare concession in Manica province to Principle Energy and a 30,000-hectare concession in Gaza Province to Procana to produce sugar for biofuel. Production from these two undertakings is forecasted to be 440 million litres of ethanol a year.

The Mozambican government's Agriculture Promotion Centre (CEPAGRI) says that sugar to ethanol projects currently in the pipeline could result in between 80,000 and 130,000 hectares of land under sugar cane cultivation, with a production of between 835 million and 1.6 billion litres of ethanol, by 2020. World demand for ethanol – currently about 20 billion litres a year and expected to grow sharply - will be sufficient to absorb this production.

² FAOSTAT 2007.