



# Beira Agricultural Growth Corridor



Delivering the Potential



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# Supporters of Beira Agricultural Growth Corridor initiative

## Government of Mozambique

Centre for the Promotion of Agriculture (CEPAGRI), Ministry of Agriculture\*

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NEPAD Business Foundation\*

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# Executive summary

The Beira corridor is the gateway to South East Africa. It is also a large area with huge agricultural potential. In Mozambique alone there are 10 million hectares of arable land with good soils, climate and access to water. But this potential has not been realised. At present there is hardly any commercial agriculture in the corridor. The rural population is almost entirely reliant on subsistence agriculture and remains very poor.

The report identifies key constraints that have prevented successful development of commercial agriculture in the Beira corridor. Essentially these are poor access to agriculture-supporting infrastructure (particularly irrigation, grid-connected electricity and all-weather feeder roads), lack of suitable finance and insufficient experienced agricultural entrepreneurs and senior managers.

It shows there is an opportunity to establish the Beira corridor as a major new agricultural producing and processing region over the next twenty years. It demonstrates that not less than 190,000 hectares of land could be put under irrigation and produce world class yields, with crops sold profitably in domestic, regional and international markets. It also shows how investments in commercial agriculture would generate major direct and indirect benefits for smallholder farmers and the rural community generally.

The agricultural potential of the Beira corridor has been known for a long time – but up to now the potential has not been realised. The key question is how to ‘make it happen’. There must be a true partnership between government, the private sector and the international community. Four key issues must be addressed if sustainable development of the Beira Agricultural Growth Corridor is to be kick-started:

- Appropriate financing mechanisms. Without new financing mechanisms the potential cannot be realised. There is a need for patient capital to part-finance the costs of agriculture-supporting infrastructure, social venture capital to kick-start very early stage agribusiness investments and a new working capital facility to fund working capital requirements of small and medium size farmers.
- Strong commitment to success from government, private sector and international community. They should demonstrate their commitment to success in the tangible ways suggested in the report.

*Image 1:  
Mango  
nursery,  
Dombe*



- Effective mechanisms for coordinating decision making and actions of stakeholders. The report notes the familiar problem of coordination failure and proposes establishment of the Beira corridor Partnership as one means of strengthening coordination without infringing on the powers of government or independent decision making of private sector companies.
- Effective mechanisms for ‘on-the-ground’ implementation of investments. The best laid plans often fail because ‘on-the-ground’ implementation capacity is weak – a major issue in the Beira corridor particularly for small and medium size ventures. The report proposes a number of ways in which on-the-ground implementation capacity can be strengthened including the use of Infrastructure Service Companies and an on-going role for InfraCo in infrastructure development and AgDevCo supporting small and medium size farm ventures.

## About the BAGC initiative

Launched at the World Economic Forum at Davos in early 2009, the Beira Agricultural Growth Corridor (BAGC) initiative is a partnership between the Government of Mozambique, the private sector and the international community which aims to stimulate a major increase in agricultural production in the Beira corridor and improve the productivity and incomes of smallholder farmers.

A focus on “agricultural growth corridors” offers an opportunity for countries to fast-track the development of their agricultural sectors, by building on existing infrastructure networks and encouraging beneficial clusters of agricultural businesses to develop.

The purpose of this report is to develop a roadmap – the Investment Blueprint – which shows what

investments are required and what actions must be taken by government, the private sector and the international community if the undoubted agricultural potential is to be realised and smallholder farmers are to share substantively in the benefits.

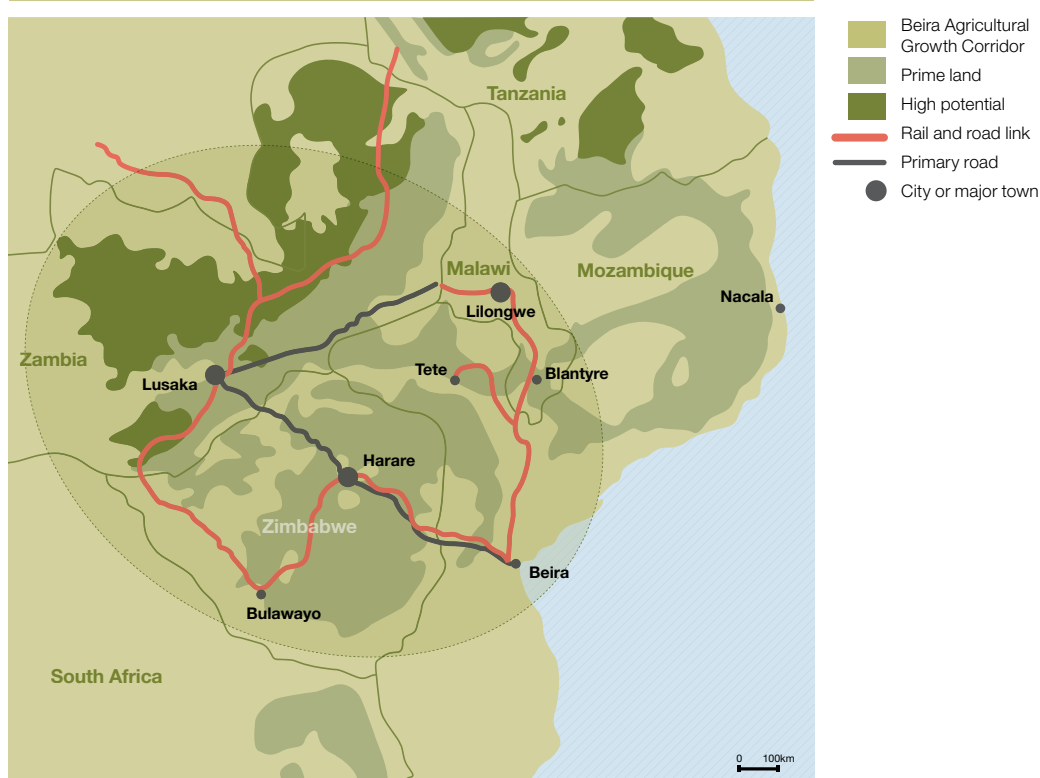
The BAGC initiative is regional in scope, but given resource and time constraints, this report focuses largely on the Mozambique part of the corridor. Future work will assess the potential to extend the benefits into Malawi, Zambia and Zimbabwe.

This short report is a summary of extensive analysis by InfraCo and its partners which is set out in full as a series of annexes at [www.beiracorridor.com](http://www.beiracorridor.com)

# Unlocking the potential of the Beira Agricultural Growth Corridor (BAGC)

The Beira corridor is the gateway to South Eastern Africa. It is a road and rail network linking Zambia, Malawi, Zimbabwe and Mozambique to the port of Beira on the Indian Ocean.

Figure 1: The Beira corridor region



All the natural conditions required for successful agriculture – good soils and climate, access to land and water resources – exist along the corridor in abundance. Coordinated action by the public and private sectors to promote agricultural growth could see the region becoming a major agricultural producer.

During the Mozambican civil war (1977–1992) much of the infrastructure along the Beira corridor fell into disrepair. Use of the corridor

declined further with the collapse of economic activity in Zimbabwe. Agriculture facilities, such as cold storage rooms in Beira port, were mothballed because of low usage. Shipping tonnage through the port of Beira fell sharply and Durban in South Africa emerged as an alternative route to market for commercial farmers in the region, despite much greater distances (e.g. Lusaka to Durban is 1,630km but Lusaka to Beira is only 850km) (Figure 1).

## BAGC can be a major breadbasket area supplying agricultural produce to the region and the rest of the world

Today there are excellent prospects for a revival of agriculture along the Beira corridor, for a number of reasons:

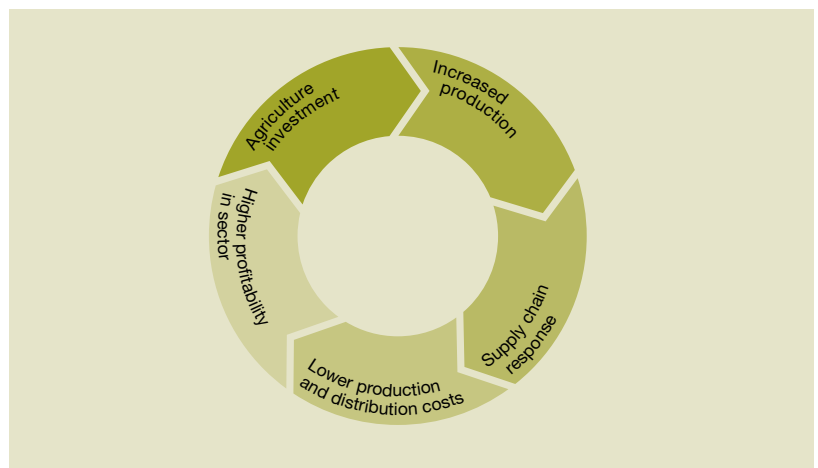
- a number of large mining investments are going ahead, which will improve access to energy, water and transport infrastructure in the region and boost local demand for food crops;
- other major projects are underway to improve transport infrastructure, including the Sena railway line and Beira port;
- there is renewed international interest in investment in agriculture in this part of Africa in response to concerns about global food security; and
- governments in the region have begun to actively promote agriculture recognising that agricultural growth has a major impact in reducing poverty.

The BAGC will provide a focus for increased commercial investment in agribusiness along the entire value chain in agriculture supporting infrastructure, farming and processing, input supply chains (fertiliser, seeds etc) and access to markets (storage, wholesale markets etc). 'Clustering' of agribusinesses within the Corridor should reduce costs, improve access to inputs and markets and therefore create a competitive, profitable and rapidly growing agricultural sector (Figure 2).



Image 2:  
Young mango trees,  
Dombe

Figure 2: The virtuous agriculture growth cycle



# Learning from Brazil: the next Cerrado?

There are fascinating similarities between the Beira corridor and the Cerrado region of Brazil in the 1970s.

Climatic and soil conditions are broadly similar and many of the same crops can be grown (e.g. maize, soya, rice, sugarcane) (Figure 3). Like the Cerrado in the 1970s, the Beira corridor is sparsely populated and remote from urban centres, with only basic infrastructure. In fact the BAGC has the relative advantage over Cerrado of direct access to a sea port and pre-existing transport networks.

In Cerrado, soya bean production increased fivefold from 9.9 million tonnes in 1975 to 51.4 million tonnes in 2005. The success of the Cerrado is commonly attributed to a combination of:

- public sector support for research programmes, infrastructure and low-cost finance for farmers; and
- significant private investment which created economies of scale and scope for all players in the agriculture sector.

The Brazilian experience shows that, when the natural conditions are suitable, investment in commercial agriculture can result in sustained growth of profitable production and farm incomes. However there is a risk that rapid modernisation of the farming sector could disrupt traditional livelihoods and exclude smallholder farmers from sharing substantively in the benefits. That is why the BAGC initiative promotes agricultural models which ensure smallholder farmers and the rural communities in which they live will benefit from growth of commercial agriculture.

Figure 3: BAGC comparison to the Cerrado in Brazil

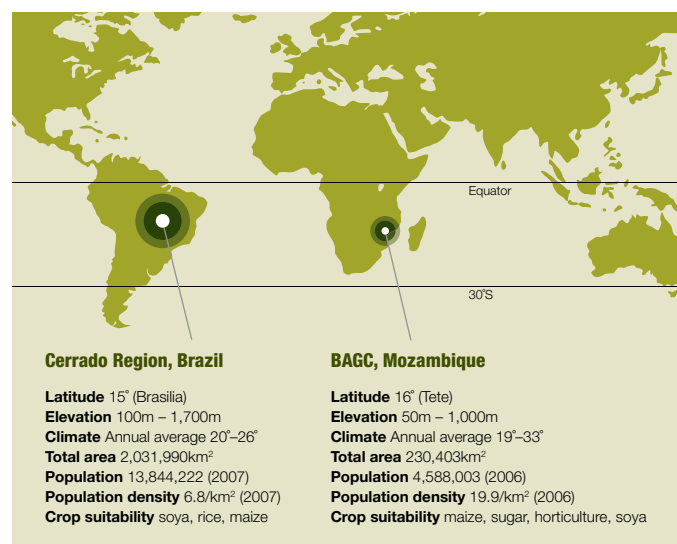


Image 3: Image of Cerrado region in Brazil



Image by Otávio Nogueira



# Setting the scene: The Beira Agricultural Growth Corridor in Mozambique

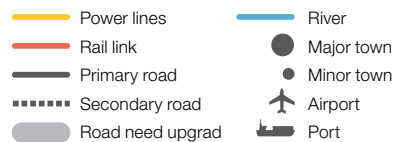
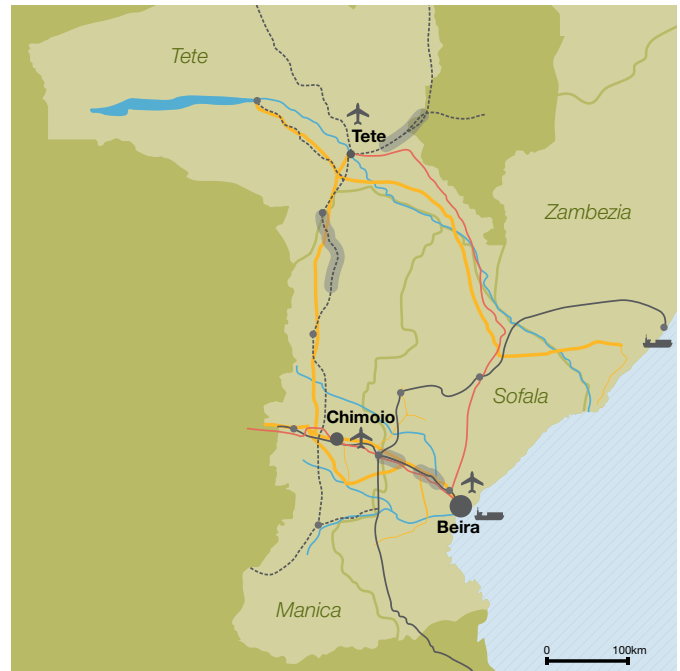
The BAGC in Mozambique comprises the provinces of Tete, Manica and Sofala. Together they cover an area of 227 thousand square kilometres, which is approximately the size of the United Kingdom.

Population is about 4.8 million, a low density of 21 people per square kilometre. Outside of the main towns of Beira, Chimoio and Tete, at least 95% of rural households depend on mostly subsistence agriculture for their livelihoods (Figure 4). Poverty is widespread with average income per capita of less than \$300 and food security is poor.

The BAGC in Mozambique has very large areas of land with soils and climate suitable for growing a variety of commercial crops. Total arable land area is 10 million hectares, of which only about 1.5 million is currently being used, almost exclusively by smallholder farmers (Figure 5).

All of the land is owned by the Government of Mozambique. There is an existing land leasing regime which allows commercial farmers to obtain 99-year leases over proposed commercial farmland.

Figure 4: The BAGC region in Mozambique



There are good water resources in the corridor. Major river basins are the Zambezi, Pungwe, Save, and Búzi, with an average annual runoff in the order of 123 billion m<sup>3</sup>. They have their source in the upstream neighbouring countries, namely, Zimbabwe and Zambia. There are a number of smaller rivers which could also play a role in irrigated agriculture, although there is a need for investments in small reservoirs to capture and store water for the dry season to be made. Modern potable water supply systems are more or less non-existent in rural areas.

# Setting the scene: The Beira Agricultural Growth Corridor in Mozambique



*Image 4:  
Fertilizer  
offloading,  
Beira port*

*Figure 5: The BAGC in figures*

Arable land	10 million hectares
Annual rainfall	1,200mm
Temperature	15°–22°C
Dry season	May–September
Land under production	c. 1.5 million hectares
Population	4.8 million
Number of farming households	802,500

The “trunk” transport and power networks in the corridor are in reasonable condition, although coverage is limited. The tarred road system requires upgrading in sections but is generally passable throughout the year. The Machipanda rail line from Beira to the Zimbabwe border is once again operational after falling into disuse during the civil war. The upgrade of the Sena rail line running from Beira north to Tete is due for completion in early 2010. Beira Port is undergoing a major upgrade with channel dredging to commence in 2010 that will allow larger vessels to use the port. Handling capacity will increase from 5 to 10 million tonnes. A power transmission network covers the main towns and transport routes. However there is no trunk infrastructure serving land with high agricultural potential in the northern part of Tete, south western Manica and the area east of Dombe.

## Anchor investments in the BAGC

Major anchor investments are proposed and underway in the BAGC (*Figure 6*). Two very large mining projects located near Tete are already in construction – Vale’s \$1.5 billion open-cast mine at Moatize and Riversdale’s \$0.8 billion development at Benga. Together these projects have the potential to produce around 13 million tonnes of coal by 2015. The investments will be a significant economic driver in the region, with the expectation of rapid demographic changes as people relocate to the area to take advantage of employment opportunities; marked improvements in transport, power and water infrastructure; and significant growth in the local demand for food crops. The mining sector is committed to promote rural development and already has commenced agricultural support programmes in the area. There are important opportunities created by the mining investments to improve agricultural productivity and incomes and rural livelihoods generally in the region. These opportunities are described later in this report.

10 million hectares  
of arable land ... only  
15% farmed largely by  
subsistence farmers

Figure 6: Anchor investments in BAC

### Mining

#### Vale

A \$1.5 billion investment to produce 11 million tonnes of metallurgical and thermal coal over the next 35 years. 900 direct jobs to be created at the peak of production with up to 3,000 jobs during the implementation phase. \$143m was invested in 2008 and \$444m budgeted expenditure in 2009.

#### Riversdale

A JV with Tata Steel on the Benga Coal Project to produce 1.7m tons of high quality hard coking coal and 0.3 tons of export quality thermal coal per year. So far \$90 million has been spent in country with \$30 million of a total \$800m projected project cost.

### Infrastructure

#### Roads

ADB has committed nearly \$65m towards upgrading, rehabilitation and maintenance of various road projects in the Manica and Tete provinces.

#### Railway

The E18 and the EU have recently lent \$94m towards the Sena Line. A further \$110m has been committed by the World Bank for the entire project.

### Ports

#### Beira port

Programme to rehabilitate the port, returning to its previous operating capacity. Funding commitment are as follows: JICA – \$17m towards reinforcement of dredging capabilities and EU – \$60m towards restoration of the access channel to its original design characteristics.



### Other Agriculture

#### Tongaat Hulett

\$177m expansion to Mafambisse mill to increase production by 80,000 tons.

#### Agriterra

Mozbife expansion of \$5.1m to achieve 10,000 head of cattle by 2013 in Manica (currently 1,000 ha and 750 head of cattle) and stocking of a 20,000 ha ranch in Dombe. 200 ha near Chimoio has also been acquired for an abattoir and feedlot business.

### Biofuels

#### Principle Energy

Utilising 14,000 ha to invest \$400m towards ethanol production from sugar cane. Located in Dombe, the biofuel is expected to flow out of Mozambique through Beira port. The project is expected to generate 13–15MW of extra power to be sold within Mozambique.

#### Enerterra

Aims to invest \$53m in 18,920 ha to produce biodiesel from Jatropha. Located in Cheringoma, Sofala approval was granted for by the Government of Mozambique in 2009.

#### Sun Biofuels

Plans for 5,000 ha of Jatropha for biodiesel in Chimoio, Manica with an investment of \$5.5m. Currently they have 1,000 under cultivation with 2,500 ha by the end of 2010.

### Fertiliser Terminal

Yara International is investing in a multi-million dollar fertilizer terminal at Beira. The port improvements, which include a holding warehouse to streamline distribution, will speed up fertilizer shipments and make fertilizer available all year round. This will significantly cut portside costs.

The on-going upgrades of Beira port and the Sena railway will also strengthen channels to markets for agricultural producers. If this opportunity is to be fully exploited the charges for use of these facilities will need to be affordable for agricultural producers particularly in the early years of corridor development.

There is also increased private sector interest in investing in agriculture in the corridor, particularly in biofuels (sugar for ethanol and jatropha) with over 80 thousand hectares allocated to investors since 2007/08. However, so far very little of this land has been put into production. Other planned investments in the agriculture sector include Agriterra's 10,000ha cattle estate and abattoir near Chimoio; and Yara International's investment in a fertiliser blending facility at Beira port.

### Agriculture-supporting infrastructure

Although there is reasonable provision of trunk infrastructure, there is an almost complete absence of agriculture-supporting infrastructure. The key elements of agriculture-supporting infrastructure are electricity grid connections, water supply for irrigation and feeder roads connecting farms to the trunk infrastructure. Investment in commercial agriculture, particularly production under irrigation, is critically constrained by the absence of agriculture-supporting infrastructure.

Each of these anchor investments strengthen the 'platform' on which rapid growth of commercial agriculture in the corridor can be based

# Current status of agriculture

There is currently very little commercial agriculture in the Beira corridor. Of the 10 million hectares of arable land, less than 0.3% is farmed commercially.

Of the 1.5 million hectares that is farmed, more than 98% is farmed by smallholders using traditional methods, primarily for subsistence. Less than 26,000 hectares is farmed commercially, mainly for sugarcane (Figure 7).

### Smallholder farming

The principal smallholder crops are maize, sorghum and beans. The average size of a farm plot is below two hectares and yields are very low (around 0.6 tonnes/ha). There is extremely limited use of modern farming inputs (e.g. improved seed varieties or fertilisers) and the hoe remains the main tool of production. A high proportion of food crop production is consumed on-farm. Almost the entire rural population is very poor and at least two thirds of farming households lack basic food security.

Tobacco and cotton are cultivated by smallholders as cash crops on about 100,000 hectares, mainly in Tete province (Figure 8). Crops are sold to large processing firms including Mozambique Leaf Tobacco (MLT) and Dunavant, for the world market. The total area of cash crops planted in the corridor fell by nearly 40% between 2004/05 and 2006/07 as smallholders switched away from cash crops due to low prices and the exit of commercial tobacco farmers from Manica province. MLT however is currently expanding its tobacco processing operations in Tete.

Recent investments in maize processing facilities in Chimoio and Tete by Agriterra have created a market for those smallholders who are able to generate a surplus. Agriterra says it bought over 40,000 tonnes of maize in 2009 and through its collection services provides a market for up to 350,000 farmers. The company provides maize meal to the regional market. Small-scale livestock rearing (cattle, goats and poultry) is widespread.

Figure 7: Farmed land in BAGC

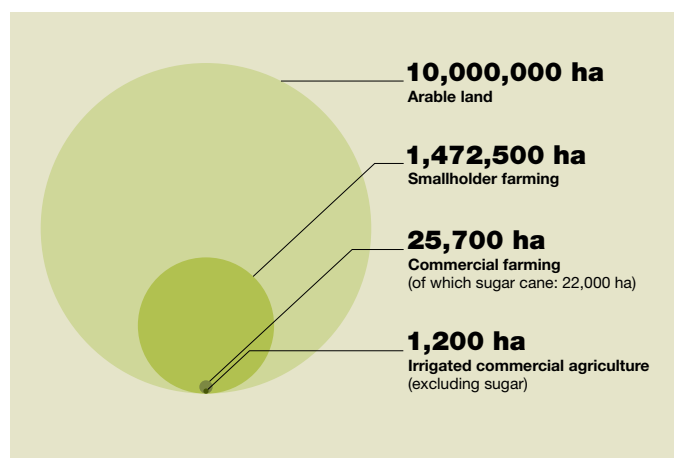


Figure 8: Smallholder production in BAGC

Smallholder production	Hectares (ha)	Estimated total production (tonnes)
Tobacco	80,000	20,000–30,000
Cotton	20,000	5,000–10,000
Maize	645,000	500,000–600,000
Beans & groundnut	212,000	n/a
Sorghum & millet	207,000	n/a
Vegetables & spices	140,000	n/a
Rice	40,000	20,000–30,000
Livestock	5.2m chickens; 1.9m goats; 0.6m cattle; 0.6m swine	

Figure 9: Commercial production in BAGC

Commercial production	Estate Farming (ha)	Medium-sized Farms (ha)	Estimated total production volumes in BAGC (tonnes)
Horticulture (babycorn, chillies, mangoes)	No activity	1,250	1,500–2,000
Sugar	22,000 of which 17,500 irrigated	n/a	200,000 tonnes processed sugar
Jatropha	No activity	1,250 not irrigated	n/a
Livestock	No activity	1,000 dairy cows; 3.6m broilers	n/a

### Commercial farming

Of the 25,700 ha that is farmed commercially, 22,000 ha is sugarcane (Figure 9). Apart from two large sugar plantations, survey data indicates there is less than 4,000 ha of commercial farmland in the three provinces of Tete, Manica and Sofala, of which only 1,200 ha is under irrigation. Vanduzi, a horticulture producer in Manica province, accounts for almost 50% of this. The main crops grown for domestic and international markets are babycorn, chillies, mangoes and banana. Commercial farmers have high irrigation costs, due to a reliance on expensive diesel generators for power supply; and high transportation costs from farm-gate to end-markets. Only one horticulture farm identified in this study (Vanduzi) had access to the electricity grid for irrigation purposes.

There is a small dairy in Chimoio with approximately 1,000 head of cattle and a poultry operation, also in Chimoio, which has 200,000 layers and produces 70,000 broilers a week.

Supply chain services – e.g. fertiliser supply, farm equipment leasing – are largely absent and when available are very high cost. There is almost no access to agricultural finance and available credit is extremely expensive.

### The failure of the “Manica miracle”

From the year 2000, 112 farmers – many from Zimbabwe – started commercial farming in Manica Province. Many created out-grower or contract farming schemes for smallholders. At the peak, it is estimated that 13,500 families were growing tobacco, 3,600 sunflower, and more than 3,000 paprika. Over 100 smallholder groups were organized to grow baby corn and other export vegetables. The rapid

growth in commercial farming provided significant development benefits to local communities, but ultimately proved unsustainable. Currently only three of the original farmers continue to farm actively in the area and the number of smallholders involved in commercial agriculture has collapsed. The key causes of failure were lack of access to agriculture-supporting infrastructure and finance.

# Current status of agriculture

The main reasons for the current lack of competitiveness are (Figure 10):

## High transport costs

At nearly 10 cents (USD) per tonne kilometre, transport costs in the corridor are significantly higher than other parts of the world (e.g. Brazil) and relatively high even by African standards. The reasons include absence of scale and reliability of supply which in turn result in use of small vehicles/ships, low capacity loadings (outbound and back-haul) and few scheduled air and sea services.

## High input costs

The delivered cost of agricultural inputs such as fertiliser compare very unfavourably with other agricultural producers in emerging markets (e.g. Egypt and Brazil). Low demand for these inputs means there is an absence of the benefits of scale and competition in supply chains. High transport costs to the farm-gate further increase delivered costs.

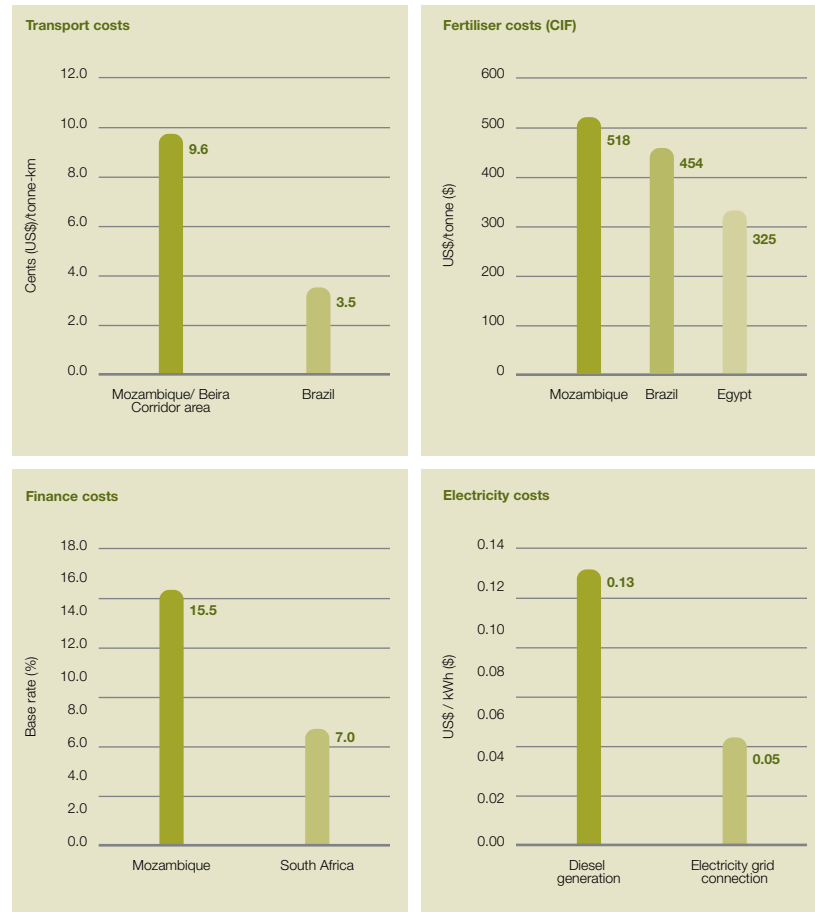
## Lack of access to affordable infrastructure services

Diesel-powered irrigation systems are at least twice as expensive to operate as systems connected to the national grid. There are arrangements where commercial farmers can pay for electricity grid connection. However the cost is often prohibitive if borne by a single farm and financing the capital costs is a problem for small and medium size farmers. In some cases even when payment is made, delivery of the connection is not always timely. Consequently only a handful of commercial farms in the corridor are currently connected to the grid.

## High finance costs

The base lending rate in Mozambique is above 15%, on top of which commercial banks typically charge a 3–5% margin for agricultural loans. In comparison the base rate in South Africa in January 2010 was 7%. Few small and medium size, early stage farming ventures are able to pay 18–20% per annum for finance and generate a profit.

Figure 10: Production costs in BAGC



Very little of the commercial agriculture in the Beira corridor is currently profitable other than sugarcane.

## Lack of experienced farm managers and farm workers

Existing commercial producers in the corridor experience problems hiring skilled farm workers and experienced farm managers. Consequentially expatriate supervisory staff costs are very high.

# Agricultural potential of BAGC

## Assessment methodology

### Step 1: Soil and climatic suitability

Identify areas 'very suitable' or 'suitable' for commercial agriculture<sup>1</sup> if irrigation available, by crop type. Crop types considered were maize, wheat, rice, soya, citrus, mangoes, bananas and sugarcane.

### Step 2: Proximity to existing infrastructure

Exclude all high potential areas not within 20km of road and power networks and 10km of a reliable water source. This screening recognises that areas remote from

existing infrastructure may not be commercial for the time being. A crop mix is then assumed to provide an indication of available area for planting by crop type.

### Step 3: Market demand assessment

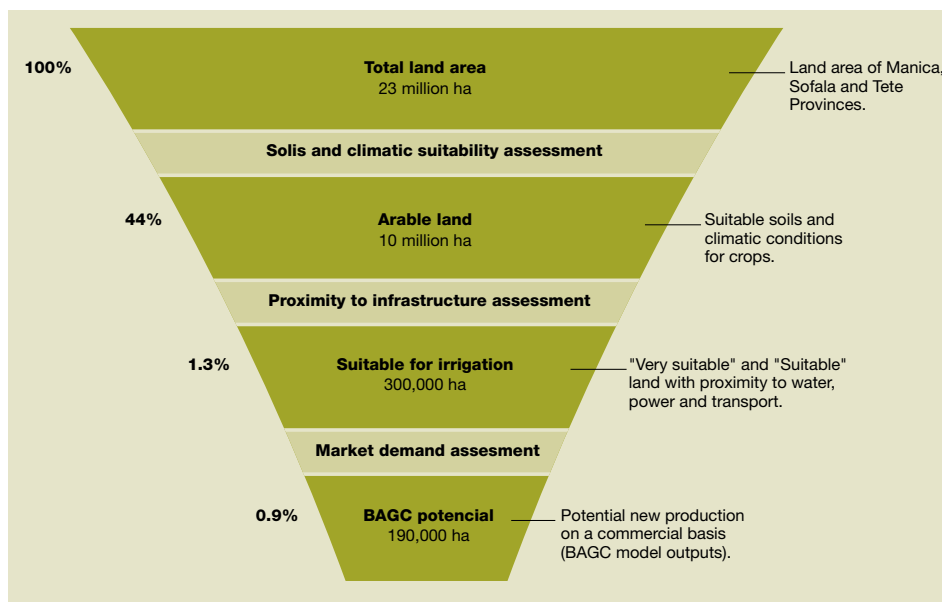
Consider whether production potential identified in Step 2 is likely to find a viable domestic, regional and/or international market.

An assessment has been made of the potential for commercial agriculture in BAGC in Mozambique. It considers the potential over the next twenty years assuming that required investments are made in agriculture supporting infrastructure, on-farm production, and complementary supply chain activities (e.g. input supply and transport logistics). It further assumes that finance is available on appropriate terms.

The assessment focuses on irrigated agriculture, on the basis that rain-fed farming in the corridor only allows one crop per year in most cases and involves high weather-related risks. Irrigated agriculture also provides the best opportunities for smallholder farmers to graduate from subsistence level farming to much more productive commercial farming (*Figure 11*).

The assessment methodology used is described in the note on the left.

Figure 11: BAGC modelling approach



# Agricultural potential of BAGC

Figure 12: high potential land area

High potential land by crop type (hectares)

Maize	6,100,000
Wheat	1,450,000
Rice	750,000
Soya	1,600,000
Citrus	1,700,000
Mangoes	1,700,000
Banana	2,100,000
Sugarcane	2,300,000

## Step 1: Soils and climatic suitability

Figure 12 shows the results of Step 1. More than 6 million ha are suitable/very suitable for maize production, 1.4 million for wheat, 1.6 million for soya and 750 thousand for rice. Large areas are suitable/very suitable for sugarcane, bananas, citrus and mangoes. The analysis excluded certain value chains e.g. jatropha and tobacco.

## Step 2: Proximity to infrastructure assessment

Figure 13 shows the four main zones. Zone 1 centred around Chimoio has the largest area of high potential land and generally good access to backbone infrastructure including roads, rail and power. Zone 2 has a greater area of high potential agricultural land but limited infrastructure coverage, although the situation improves significantly around Tete with the anticipated completion of the Sena rail line and mine developments. Zones 3 and 4 have high agricultural potential but are distant from existing infrastructure.

Figure 14 shows that the total area suitable/very suitable for irrigation production within close proximity to existing infrastructure totals about 300,000 ha. It also shows the breakdown by crop type.

Note that the area available for planting is exclusively in Zones 1 and 2, because of the lack of infrastructure elsewhere in the corridor. If Zones 3 and 4 were opened up with new roads and power distribution within the twenty year period, there would be a doubling of the area of land suitable for commercial production.

Figure 13: BAGC high potential agriculture areas





Figure 14: BAGC area suitable for commercial agriculture

Crop	Area suitable or very suitable	Near infrastructure <sup>2</sup>	Area available for planting <sup>2</sup>	Land classification
Banana	2,122,000	46,000 (2%)	29,000	Suitable
Citrus	1,726,000	121,000 (7%)	30,000	Very suitable
Mango	1,726,000	121,000 (7%)	30,000	Very suitable
Wheat, maize, soya	1,372,000	90,000 (7%)	55,000	Suitable
Rice	761,000	91,000 (12%)	23,000	Suitable
Sugarcane	2,300,000	267,000 (12%)	133,000	Suitable
<b>Total</b>			<b>300,000</b>	

<sup>2</sup> Based on FAO definitions <http://www.fao.org/docrep/x5310e/x5310e04.htm>

### Step 3: market demand assessment

The third step was to assess the capacity of markets to absorb the extra production. In the short-term regional demand for horticulture crops (e.g. bananas, citrus and mangoes) is not constrained for moderate growth in production. However if the full production potential were to be realised then new markets in the Middle East and Asia would need to be opened up. Even then it is unlikely that demand exists for more than 5,000–6,000 ha of commercial production at optimal yields (6,000 ha of citrus production, for example, would yield in the region of 260,000 tonnes of fruit, just under 5% of total world exports today).

Growth of wheat, maize, soya and rice production is unlikely to be demand constrained. In the short-term there are good opportunities in domestic and regional markets (substituting for imports, e.g., Mozambique currently imports 350,000 to 400,000 thousand tonnes of wheat and a similar volume of rice annually) and in the longer term Mozambique could supply regional markets. Sugar is a commodity product, with the potential to convert into ethanol for fuel, for which demand is unlikely to limit Mozambique production.

Image 5: *Jatropha* plantation, Chimoio



Growth of wheat, maize, soya and rice production is unlikely to be demand constrained

# Agricultural potential of BAGC

Figure 15: BAGC assessment results (ha and volumes)

Crop	Hectares	Yields (tonnes/ha)	Production (tonnes)
Banana	6,000	60	360,000
Citrus	6,000	40	240,000
Mango	4,500	20	90,000
Wheat, maize, soya	55,000	5	275,000
Rice	20,000	6 <sup>1</sup>	120,000
Sugarcane	100,000	110	11,000,000
<b>Total</b>	<b>191,500</b>		<b>12,085,000</b>

<sup>1</sup> FAO estimate 2007

Figure 15 shows that about 190,000 ha has high production potential, close proximity to existing infrastructure and is unlikely to be constrained by market absorptive capacity. It also shows that based on realistic assessments of achievable yields the production potential in 20 years is about 12 million tonnes, broken down by crop type as shown. At current market prices this represents potential gross income of about \$990 million per annum.

If the production models described in the Investment Blueprint were adopted, of the approximately 190,000 ha under irrigated production, 67,000 ha would be farmed by up to 13,300 smallholder farmers on irrigated plots ranging in size from 5 ha to 50 ha. The remainder would be a mix of large estates (>10,000 ha) and medium sized farms (300 ha – 3,000 ha).

There is also considerable potential for commercial livestock farming, principally cattle and poultry, on a further 80,000 ha of land, alongside production of feed crops such as maize, alfalfa and soya. This could

generate an additional \$50 – \$100 million in revenues bringing total commercial farming revenues to in excess of \$1 billion per year.

Although this represents major growth in commercial agriculture compared to the present situation the new land area under irrigation by 2030 would still account for less than 2% of the arable land area in the Beira corridor region of Mozambique. Moreover it takes no account of the potential for rain-fed agriculture once infrastructure and supply chains improve. Nor of the potential to expand agriculture-supporting infrastructure to new areas once the platform is laid.

# Infrastructure requirements

To realise the agricultural potential a significant investment in agriculture-supporting infrastructure particularly irrigation will be required.

The assessment considered what investment in infrastructure would be needed to put 190,000 ha under irrigated production by 2030.

## Backbone infrastructure

The backbone infrastructure in the corridor is largely adequate to support a substantial increase in commercial agriculture, assuming that improvements to the railway, roads and port go ahead as planned. One exception is the need to extend the power grid to serve the high agriculture potential area east of Dombe which could be achieved at an estimated cost of less than \$2 million.

## On-farm infrastructure

To grow irrigated crops on 'greenfield' land, farmland needs to be cleared, levelled and properly drained. There is also a need to install a suitable in-field irrigation system (pivot, dragline or drip).

## Off-farm infrastructure

Much of the upfront expenditure for greenfield farming projects lies in the off-farm infrastructure.

This includes the costs of bringing power, water and road access to the farm-gate. Bulk water investments include small dams and storage reservoirs to hold water during the dry season, pump systems and pipes.

## Other agriculture supporting infrastructure

Providing improved opportunities for value-addition and access to markets will require investment in processing/ milling facilities, cold storage and wholesale markets, including in Chimoio, Tete and Beira.

## Community infrastructure

Once water and power has been extended to the farm site, extensions to local villages can be provided at low marginal cost (Figure 16).

Figure 17 shows the estimated requirement for new infrastructure to deliver 190,000 ha of irrigated production. By far the largest infrastructure requirement relates to the on-and off-farm irrigation investments.

Figure 16: Agriculture-supporting infrastructure

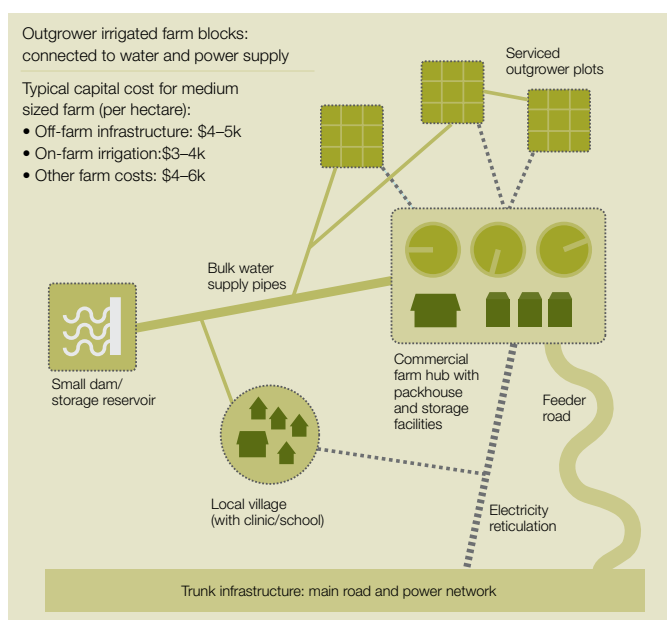


Figure 17: Infrastructure requirements (units)

Category	Units
<b>Backbone infrastructure</b>	
Electrification East of Dombe	50 km
<b>On-farm infrastructure</b>	
In-field irrigation (ha)	192,000 ha
<b>Off-farm infrastructure</b>	
Electricity reticulation (km)	2,520 km
Storage reservoirs and bulkwater supply systems – number of farms and outgrower schemes	150
Feeder roads (km)	1,670 km
<b>Other agriculture supporting infrastructure</b>	
Wholesale markets	2
Storage facilities	4
Mills/processing facilities	2
<b>Community infrastructure</b>	
Villages served with water and power connections	150

# Infrastructure requirements

Figure 18: Unit infrastructure costs

	Cost (\$)
On-farm infrastructure	3,500–4,500/hectare
Total off-farm infrastructure	5,00/hectare
Electricity distribution	10,00–20,00/km
Bulk water supply (300 ha farm, 10km from water supply)	2,500/hectare
Feeder roads	2,500/hectare
Community infrastructure	50,000/commercial

High level estimates of the unit costs of providing the required infrastructure are set out in *Figure 18*.

## On-farm infrastructure

The estimated cost to prepare the land and install in-field irrigation is \$3,500–\$4,500/ha. The lower end of the range is for commercial farms under pivot irrigation. The higher end is for serviced farm blocks, typically using dragline systems. These costs do not include getting water and electricity to the farm gate.

## Off-farm infrastructure

Electricity distribution costs in the Beira corridor are \$10,000–\$20,000 per kilometre. For present purposes any farm that is more than 20km from the main grid system is considered not to be economically viable in the short term. Bulk water supply costs are location specific. Here the estimated cost is \$750,000 to serve a 250 ha commercial farm and an adjacent 50 ha outgrower scheme. Average off-farm infrastructure costs total in the region of \$5,000/ha.

## Infrastructure Service Companies

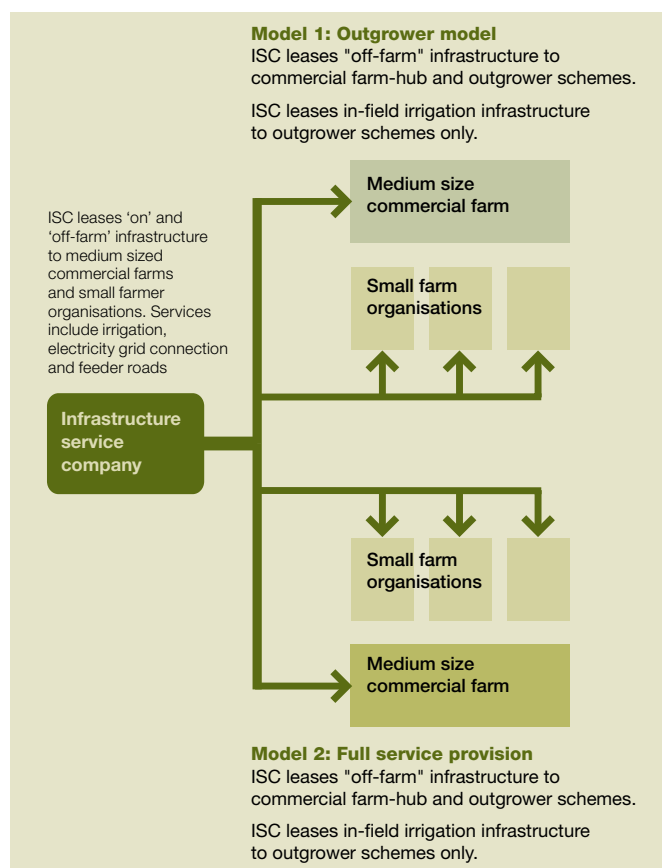
The high 'front-end' fixed costs of agriculture-supporting infrastructure, particularly for irrigation, are a major constraint on greenfield investment in agriculture. If small and medium size farm operations have to fund the full costs of provision of the infrastructure themselves the investment is likely to be uneconomic and therefore not proceed. If third parties agree to provide the infrastructure the farm operation is at risk that services will not be provided when they are needed. But without the necessary infrastructure, small and medium size commercial farmers cannot achieve the productivity gains which justify farm investments. Moreover, even if the expected profitability is acceptable when the

full infrastructure costs fall on the farmer, the inability to secure finance also frequently prevents the investment taking place.

One way to deal with this issue is to have agriculture-supporting infrastructure provided by one or more Infrastructure Service Companies (ISCs) (*Figure 19*). The ISCs would design, finance and build agriculture-supporting infrastructure and lease it to medium size commercial farms and smallholder farmer organisations (e.g. co-operatives). Lease charges would be set to recover the costs of provision of the infrastructure services over the full life of the assets. Discounted charges could apply for smallholder farmers.

The ISC model of provision of agriculture-supporting infrastructure has been successfully adopted elsewhere in Africa. As explained later, success depends on instituting appropriate governance and management arrangements and securing 'patient' capital to fund the infrastructure assets and lease them to farmers at a cost which leaves commercial agriculture profitable in the early years.

Figure 19: ISC service delivery model



# Value chain benefits

Figure 20: Agricultural value chain

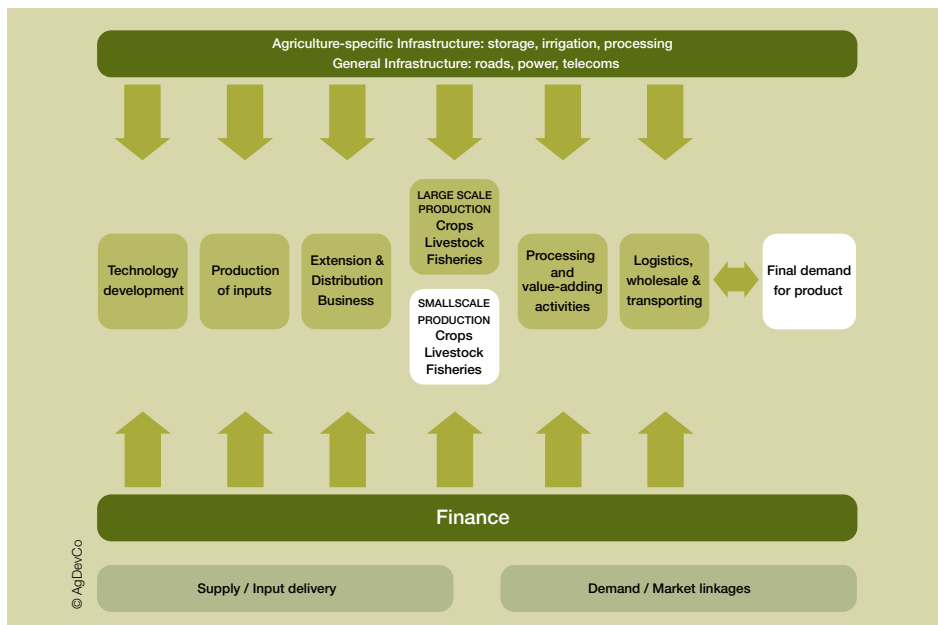


Figure 21: Medium term value chain benefits

## Agricultural inputs

Seeds	Breeding production, wholesale, retail Increased volume and range of varieties
Fertilizer	Growth of demand, reduction in cost, bulk terminals, wholesale, retail.
Crop management products	Growth of demand, reduction in costs
Farm equipment	Growth of farm equipment leasing businesses

## Post-harvest

Storage	Network of storage facilities Improves post-harvest volumes and price (including small farmers)
Processing	Growth in processing / value addition of range of products
Marketing	New wholesale markets and strengthened marketing capability

## Financial services

Road	Major growth of SME road transportation / logistics businesses
Sea	More scheduled services with large vessels, result in lower costs.

## Agricultural services

Extension services	Growth of agricultural - support services businesses (including small farmer extension services)
Information services	

Growth of agricultural production will stimulate, and be supported by, simultaneous growth of agribusinesses along the whole value chain (Figure 20). Evidence from other parts of the world shows that to achieve rapid growth in agricultural production there is a need for supportive investments elsewhere in the value chain – in transport services, input supply, development of value-added processing, wholesale markets and marketing services and agricultural credit and other financial services. There is major potential to generate significant off-farm employment and incomes within the value chains as agricultural production grows over time (Figure 21).

For example, there is potential to develop a viable seed industry in the corridor. Fertiliser demand would reach around 40,000 tonnes per annum just from the irrigated production on 190,000 ha. If smallholder farmers increase their fertiliser use, as costs come down and integration into commercial value chains improves, fertiliser demand could reach 100,000 tonnes per annum in Mozambique alone.

Transport and logistics companies could expect to see very rapid growth in turnover and profits while reducing shippers' unit costs as vehicle/ship/aircraft sizes increase and loading/back-haul factors improve.

# Smallholder farmer and community benefits

Figure 22: Smallholder commercialisation models

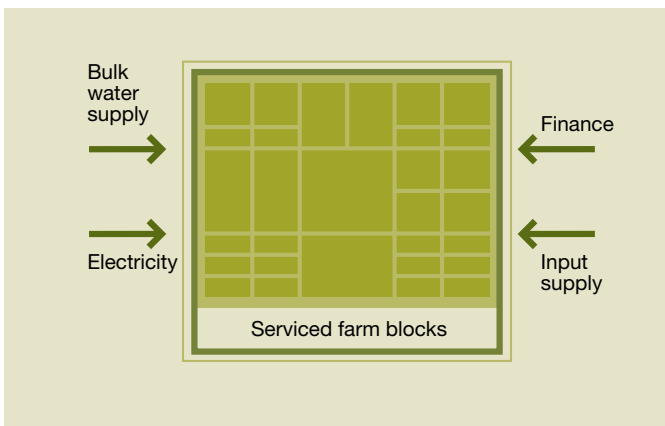
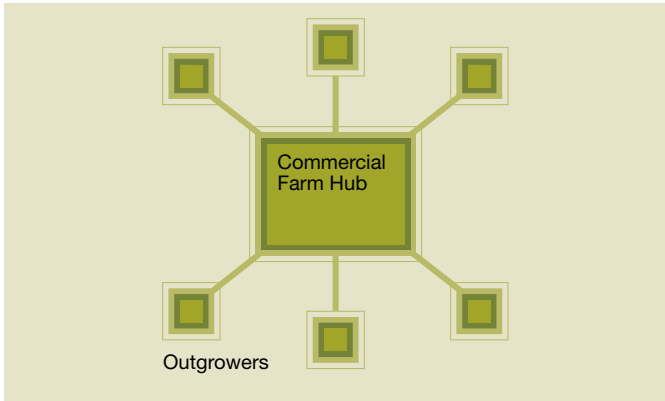
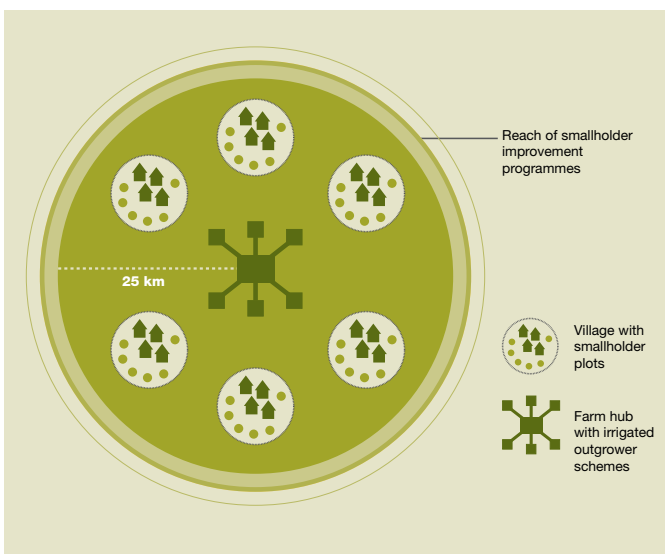


Figure 23: Smallholder service delivery programmes



It is essential that the smallholder farmers in the corridor benefit from the growth of commercial agriculture. Some of these benefits will accrue as new employment opportunities in commercial agriculture and off-farm agribusiness.

The Investment Blueprint set out later proposes direct links between commercial farm investments and smallholder farmers in ways that will significantly improve smallholder farmers' productivity and incomes.

Figure 22 illustrates two approaches, both of which involve: provision of irrigation to smallholder farmers in the vicinity of commercial farms at affordable cost; access to modern farm inputs (e.g. improved seeds, fertiliser) and credit facilities; access to improved post-harvest facilities (e.g. storage) and to end-markets; and access to extension services.

### **Outgrower model**

This is a familiar model where the commercial farm 'hub' provides services to smallholder farmer organisations. Here the commercial farm would extend irrigation to smallholder farm communities as well.

### **Serviced farm block model**

In this model serviced farm blocks under irrigation are leased to commercial and smallholder farmers. A modular layout allowing plot configurations ranging from 5 ha to 50 ha allows smallholder farmers to graduate to medium size.

The two approaches are not mutually exclusive.

Later in the report we describe how these approaches can be financed and implemented on a commercially sustainable basis, how to make the infrastructure services affordable for smallholder farmers and how to deal with the governance issues when the commercial farmer is a local monopolist.

There will be direct and indirect benefits for smallholder farmers and rural communities at several levels.

### **Irrigated smallholdings**

All commercial farm 'hubs' would make available irrigation for smallholdings in the adjacent area. Major increases in yields and improvements in food security will be realised.

“The Green Revolution in Mozambique has the principal objective of inducing an increase in production and productivity of small producers by encouraging food production in a competitive and sustainable way.”

*Government of Mozambique, 10-12 March 2008, Technical Meeting of PROAGRI II*

*Image 6:  
Honey  
sellers,  
Sussendenga*



### **Other smallholders**

As a condition of access to certain types of financing support, all commercial farm hubs would provide, within a 25km radius, improved access for smallholders to lower cost inputs, improved post-harvest facilities and access to markets and extension services (Figure 23). Although the yield and income uplifts will not be as great as for those smallholder farmers benefitting from irrigation, they will nevertheless be considerable and provided on a highly cost effective basis.

### **Community benefits**

If the agricultural potential is realised there will be additional indirect benefits for rural communities. These include increases in employment and wage income for on- and off-farm agricultural workers; the boost to local purchasing power will stimulate non-agricultural enterprise; rural communities will have lower cost access to electricity and clean water; and food security and health status will be much improved as incomes increase.

# Investment Blueprint (2010–2030)

Investment in commercial agriculture over the next twenty years will be determined by the private sector based on an assessment of commercial viability.

The areas farmed, the crop mix and the farming methods will be determined following detailed planning and investment evaluation.

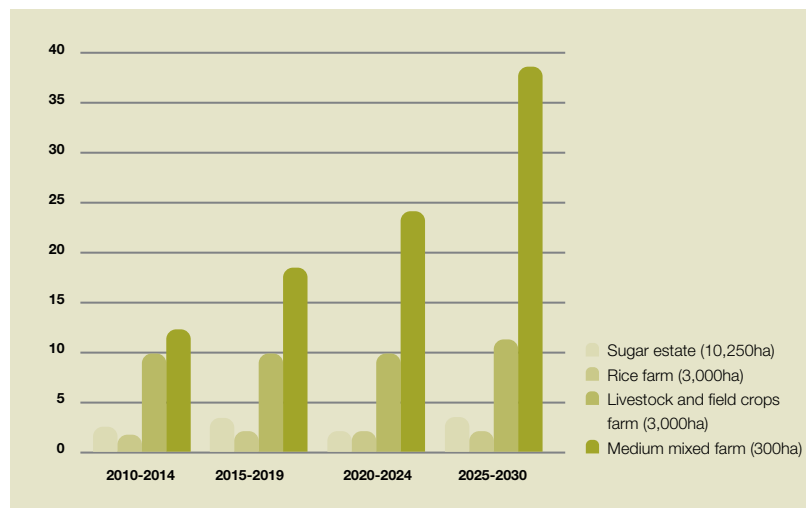
A high level financial model has been used to assess the commercial viability of investments necessary to deliver the agricultural potential described earlier. Production models have been developed using realistic benchmarks for yields, capital and operating costs and selling prices (see production note opposite).

### Scenarios considered

Investment scenarios have been developed which, if implemented, would result in the full realisation of the 190,000 ha of irrigated production potential by 2030. The scenarios have been evaluated to determine whether the required investments would generate commercial returns on capital invested.

Figure 24 shows the assumed build-up of new farm investments by production model in each of the five year periods between 2010 and 2030. A total of 150 successful new farm ventures are established over the twenty year period.

Figure 24: Number of new farming projects established per year (2010–2030)





## Production models used in the viability assessment

Four types of farming project are considered:

### Sugar estate

10,000 ha of irrigated sugar cane production for processing as raw sugar or for ethanol. 25% of the irrigated land area is made available for smallholder farmers. An additional 250 ha of field crops (wheat, maize, soya) is grown under irrigation by smallholders. The sugar estate incurs the full upfront capital cost of the required on-farm and off-farm infrastructure.

### Medium-sized rice farm

3,000 ha of irrigated rice production, of which 2,000 ha is grown by smallholders. Infrastructure is provided by a third-party ISC, which means the rice farm avoids the upfront capital cost of putting land under irrigation.

### Medium-sized commercial farm hub

Mixed production of horticulture (bananas, citrus, mangoes, litchi) and field crops (wheat, soya, maize) on 300 ha, of which smallholders farm 50 ha. As for the rice farm, infrastructure is provided by a third-party ISC.

### Medium-sized field crops and livestock farm

1,000 ha of irrigated field crops (of which 500 ha is smallholders) plus 2,000 ha of (non-irrigated) cattle farming. The farm could also support a poultry operation with excess field crops used as feed stock.

## Indicative investment costs

Indicative estimates of the investment costs required to establish this number of new farms, of the types indicated, are set out in *Figure 25*. It shows the investment costs to develop 10 new sugar estates, 140 new medium size farms, 190,000 ha of new irrigation and 150 smallholder farmer outgrower/serviced block schemes over 20 years.

Total investment costs over the twenty year period are about \$1.74 billion. The investment cost for the large sugar estates, including related infrastructure, is about \$790 million. The investment cost for agriculture-supporting infrastructure, principally irrigation, for lease to medium sized farms producing rice, wheat and soya, horticulture and livestock is about \$605 million. Additional investment for the medium size farms is about \$350 million of which about \$77 million is to fund working capital. In all cases these figures include the cost of irrigation for adjacent smallholder farmers but exclude the cost of post-harvest facilities which are estimated at about \$25-30 million.

Figure 25: Estimated investment costs (2010–2030)

	Sugar estates	Rice farms	Livestock and crops farms	Mixed crops farms	ISCs	Total (\$m)
In-field irrigation (\$m)	386.3	–	–	–	352.7	739.0
Off-farm infrastructure (\$m)	127.3	–	–	–	253.0	380.2
Working Capital (\$m)	30.0	10.5	20.5	46.0	–	107.0
Other farm capex (\$m)	244.4	65.5	149.1	570.4	–	516.3
	787.88	75.95	169.59	103.42	605.68	1,742.51
	Sugar estates	Rice farms	Livestock and crops farms	Mixed crops farms	ISCs	Total/Avg
Number of new farms (#)	10	7	41	92	N/A	150
Total hectares (ha)	102,500	21,000	41,000	27,600	89,600	192,100
Infield irrigation cost / ha (\$)	3,768	–	–	–	3,936	3,852
Off-farm infrastructure cost / ha (\$)	1,241	–	–	–	2,823	2,032

The totals do not tally because the ISC land area is equal to the sum of the medium sized farms. Monetary amounts in constant 2009 prices.

# Investment Blueprint (2010–2030)

## Financial results and economic benefits to 2030

The results of the financial analysis derived from the model are set out in *Figure 26*. It shows that the sugar estates generate a commercial return on capital investment even after fully self-funding the related infrastructure costs. This results from a combination of high yields and the benefits of scale. In contrast the medium size farm investments generate returns which in some cases are close to commercial and in others are clearly sub-commercial if they are required to self-fund the full costs of providing irrigation and other necessary infrastructure. This is because they have high start-up costs e.g. land clearing, and high unit fixed costs in the early years when volumes are small. If part of the infrastructure costs are funded by the ISCs, and charges are set to recover the costs of infrastructure provision over 20 years, and the ISCs have access to patient capital (see later) to fund a portion of the ISCs' capital costs, then those small and medium size farms which generated sub-commercial returns if self-funding infrastructure costs now show returns that are commercial because of lower start-up and infrastructure costs in the early years. Moreover once the start-up costs are sunk and the benefits of larger scale operation and learning from experience bring down unit costs, all the small and medium size farm operations are able to pay higher lease charges and show a commercial return over the medium term.

*Image 7:  
Agriza  
Bananas,  
Manica*



Some medium sized farms generate sub-commercial returns if required to self-fund irrigation costs.

*Figure 26: Internal rates of return (IRRs) for commercial farms*

Estimated project IRRs (pre-tax)	Farms self-fund infrastructure (%)	ISC leases infrastructure to farms on affordable terms (%)
Sugar estates (10,250 ha)	17	N/A
Medium-size mixed farms (300 ha)	8–12	18
Rice farms (3,00 ha)	9	17
Livestock farms (3,000 ha)	7	17

The estimated IRRs are for debt and equity, pre-tax. Assumes 100% of ISC capital costs funded with patient capital.

### Economic Benefits (2010 to 2030)

Growth in the agriculture sector in the Beira corridor will have major direct and indirect benefits, for a broad section of the population. The main direct benefits are: higher and more predictable incomes for farmers and others involved in the agriculture supply chain; increased employment opportunities for on-farm and off-farm labour; capital income generated from investment; and fiscal revenue accruing to government. The indirect benefits include the induced growth in other sectors (e.g. construction, services, retail) which generate a multiplier effect, further boosting regional economic growth.

Figure 27 sets out order-of-magnitude estimate of the incremental direct and indirect benefits assuming that the Investment Blueprint is fully implemented by 2030.

Growth of commercial agriculture on the scale and in the manner envisaged in the Investment Blueprint would have a positive transformational impact on smallholder farmers and rural communities. Figure 28 highlights some of these benefits.

Research indicates that growth in the agricultural sector is three times more effective at reducing poverty than growth originating in the rest of the economy

Figure 27: BAGC benefits

Gross on-farm revenue, including irrigated outgrower plots:	c. \$1,000 million pa
Additional supply-chain revenues (e.g. input supply, machinery leasing, transport)	c. \$500 million pa
Multiplier effects	c. \$375 million pa
Total incremental revenues associated with BAGC	c. \$1,875m pa
Gross value added (wage income + return on capital + taxes)	c. \$750million pa
<b>Total new employment</b>	
Farming and processing	c. 180,000
Additional supply-chain jobs	c. 90,000
Additional jobs in other sectors (e.g. construction, services, retail)	c. 80,000
Total incremental jobs associated with BAGC	c. 350,000
Fiscal revenues to the government of Mozambique	c. \$50m pa

Figure 28: Smallholder and community benefits

Group	Summary of benefits
Local communities in the Beira corridor	At least 150 villages near commercial farms benefit from provision of power and water supply.
Smallholder farmers on irrigated plots	More than 13,000 smallholder farmer families have access to affordable irrigation services. Average net income per smallholder farmer family on a five ha plot would increase more than 400%.
Smallholder farmers receiving extension services	Improved access to finance, inputs and markets allows up to 200,000 smallholder farmer families to benefit from improved yields and higher incomes, net incomes predicted to more than triple, lifting 1 million people out of extreme poverty.

# Investment Blueprint – the first five years (2010–2015)

In the first five years, if the Investment Blueprint were realised, there will be 25 new commercial farm investments, all with associated outgrower/ serviced block schemes to extend the benefits to smallholder farmers in the vicinity.

Figure 29 shows the composition of the investment portfolio. There are two new sugar estates and twenty three medium size mixed crop and livestock farms. Irrigation is provided by ISCs to all of the medium size farms. The total area irrigated in this five year period is 53,700 hectares of which 16,600 hectares is provided by ISCs for small and medium sized farms and smallholder farmers. The total investment cost is about \$324 million of which \$166 million is for medium size mixed farms. About \$106 million of this cost is for on- and off-farm infrastructure, principally irrigation.



Image 8:  
Farm land  
scenery,  
Chimoio

Figure 29: BAGC investment portfolio (2010–2015)

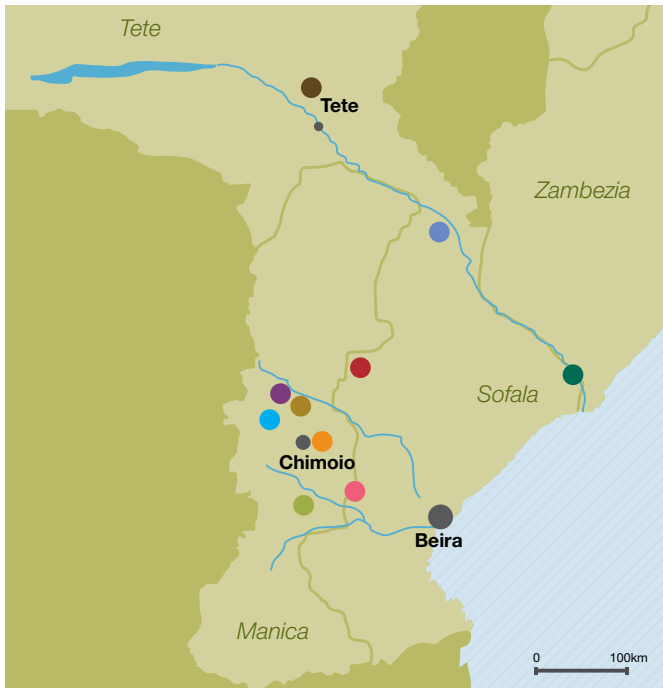
2010–2030	Sugar estates	Rice farms	Livestock and crops farms	Mixed crops farms	ISCs	Total (\$m)
In-field irrigation (\$m)	77.3	–	–	–	65.7	143.0
Off-farm infrastructure (\$m)	25.5	–	–	–	40.7	66.2
Working Capital (\$m)	6.0	1.5	5.0	6.0	–	18.5
Other farm capex (\$m)	48.9	9.4	8.6	46.7	–	96.3
	157.7	10.9	13.6	52.7	106.4	330.0
	Sugar estates	Rice farms	Livestock and crops farms	Mixed crops farms	ISCs	Total / Avg
Number of new farms (#)	2	1	10	12	N/A	25
Total hectares (ha)	20,500	3,000	10,000	3,600	16,600	37,100
Infield irrigation cost / ha (\$)	3,768	–	–	–	3,958	3,863
Off-farm infrastructure cost / ha (\$)	1,241	–	–	–	2,455	1,848

Figure 30: BAGC benefits arising in the first five years

Annual gross revenues to farm production:	\$166.7m
Direct jobs	8,800
Indirect jobs (processing etc)	28,550
Smallholder beneficiaries (irrigated)	2,620
Smallholder beneficiaries (non-irrigated)	50,000

The projected benefits from this initial five year Investment Blueprint are summarised in Figure 30. There are significant direct and indirect benefits for the rural community. Achieving this ‘platform’ would make a step-change in the Beira corridor leading to full realisation of the medium term potential.

Figure 31: Fast-track investment opportunities



- Headquarters of family sector commercialisation programme. Planalto and progene seeds, Chimoio
- Central point of mango/lychee plantation zone
- Central point of banana plantation area
- Central point of citrus plantation area
- Central point of the honey production and collection project, it covers the majority of the corridor region
- Benga fresh produce supply venture
- Envalor limitada
- Chemez valley farm block
- Grown energy Zambeze
- Munda munda flood control/irrigation and planalto smallholder rice storage/milling/marketing project

### Fast-track opportunities

A number of specific ‘fast-track’ opportunities have been identified each of which could be initiated in the next few years. They range from large sugar estates to medium size mixed crop farms to smallholder farmer extension and marketing programmes. What is common to all the projects is that they can be delivered on a commercially sustainable basis, involve significant benefits for smallholder farmers but all must overcome specific constraints before they can proceed.

Figure 31 shows the location of these ‘fast track’ opportunities and Figure 32 provides brief descriptions.

A number of these opportunities only require access to early stage ‘venture’ capital and affordable working capital. They show fully commercial returns but have sponsors with limited track record and balance sheet.

Other opportunities require access to agriculture-supporting infrastructure as well as finance. The proposal to establish ISCs to provide infrastructure services (set out below) will address the first of these constraints. There will remain the issue of access to affordable finance.

Image 9: Zambezi River Bridge



A number of these opportunities only require access to early stage ‘venture’ capital and affordable working capital

# Investment Blueprint – the first five years (2010–2015)

Figure 32: Brief descriptions of fast-track opportunities

Project	Type of project and description	Initial investment needed	Actions needed
<b>Progene seed growing and distribution</b> Manica (HQ Chimioio)	Medium sized farming and extension programme <ul style="list-style-type: none"> <li>• Growing and distribution of improved seeds for 44,000 ha of maize, 6,000 ha of soy and 12, 000 ha of assorted beans</li> </ul>	\$3.5m	Electricity reticulation will improve viability/ need for finance
<b>Mango &amp; litchi farm</b> Manica – Dombe & Lower Revue River	Medium sized farming with (irrigated) outgrower schemes <ul style="list-style-type: none"> <li>• 200-600 ha mango and litchis plantation with outgrower scheme</li> <li>• Value addition through packhouses and cold storage from commercial producers</li> </ul>	\$6.7m	Up to 35km of electrification needed/ need for finance.
<b>Banana farm</b> Manica – Manica town	Medium sized farming with (irrigated) outgrower schemes <ul style="list-style-type: none"> <li>• A minimum of 600 ha to of commercial banana production to be started. Expansion of up to 200 ha planned with a 40 ha outgrower scheme</li> </ul>	\$10.9m	Electricity reticulation will improve viability/ need for finance
<b>Citrus farm</b> Manica	Serviced farm blocks for outgrowers <ul style="list-style-type: none"> <li>• 4 citrus outgrower schemes farming up to 50 ha each</li> <li>• Potential association with Vanduzi</li> </ul>	\$10.9m	Electricity reticulation will improve viability/ need for finance
<b>Benga fresh produce</b> Lower Zambezi Valley	Medium sized farming with outgrower schemes <ul style="list-style-type: none"> <li>• 300 ha of fresh produce and grains to supply the mining industry</li> <li>• More than 2,000 jobs in the next 5 years will be created and up to 500 associate producers will be contracted to supply the pack house</li> </ul>	\$3.7m	Requires electricity and bulk water supply/need for finance
<b>Chemez Valley Mixed farm</b> Manica / 15–20km north-east of Manica town	Medium sized farming with (irrigated) outgrower schemes <ul style="list-style-type: none"> <li>• 450 ha commercial and 450 ha smallholder production of horticulture and field crops</li> <li>• Simple packhouses located near commercial productions areas</li> <li>• 400 farm families to be supported and 550 labourers</li> </ul>	\$6.8m	Requires irrigation infrastructure/need for finance
<b>Envalor sugar to ethanol</b> Manica / 70 kms south on Enchope, Sussendenga district	Large estate with outgrower scheme, including for food crops <ul style="list-style-type: none"> <li>• 25,000 ha of sugar cane, sweet sorghum and dry beans</li> <li>• Sugarcane and sweet sorghum will be processed into 150 million litres of fuel grade ethanol and 32 MWh of electricity through high-pressure bagasse</li> <li>• Food production of 10,000 tonnes of beans</li> <li>• 1,800 jobs to be created</li> </ul>	\$350m	Requires electricity supply/need for finance
<b>Grown Energy Sugarcane Outgrower Scheme</b> Upper Zambeze	Outgrower scheme for large sugar estate <ul style="list-style-type: none"> <li>• 3,000 ha for sugarcane outgrower scheme and offtake agreement with up to 200 families with farming areas of 15 has each; 600–700 ha for food production: rice in the summer and dry beans in the winter</li> <li>• 110 million liters per annum of anhydrous fuel grade ethanol from sugar cane and sweet sorghum, 15,000 tonnes of vegetable protein, 200 tonnes of meat and 2–3 MW of excess electricity along with 115,000 annual emission reductions credits</li> <li>• Around 2,000 full time jobs to be created</li> </ul>	\$20m	Requires irrigation infrastructure/need for finance
<b>Family sector commercialisation</b> Manica/Sofala (HQ Chimioio)	Smallholder extension /marketing programme <ul style="list-style-type: none"> <li>• Provision of input supplies and finance to 4,800 farmers</li> <li>• Crops: maize, soya, cow peas and sugar beans</li> </ul>	\$3.7m	Ready to proceed/need for finance

Figure 32: Brief descriptions of fast-track opportunities (cont.)

Project	Type of project and description	Initial investment needed	Actions needed
<b>Planalto maize storage, milling and marketing</b> Manica/Sofala	Smallholder extension/marketing programme <ul style="list-style-type: none"> <li>Collection, storage and value-addition of smallholder produce at three sites in proximity to production centres</li> <li>29,000 smallholder farming families to be supported on 83,000 ha</li> </ul>	\$15.6m	Ready to proceed/ need for finance
<b>Honey collection and marketing</b> Manica/Sofala/Lower Zambezi (HQ) in Chimoiio.	Smallholder extension/marketing programme <ul style="list-style-type: none"> <li>Collection and export of organic honey eventually involving as many as 25,000 families.</li> <li>10,000 farmers will be trained and 500 tons of honey collected</li> </ul>	\$1.6m	Ready to proceed/ need for finance
<b>Munda Munda Rice irrigation Scheme</b> Lower Zambeze	Serviced farm blocks for outgrowers with extension & marketing programme <ul style="list-style-type: none"> <li>3,000 ha irrigated land for smallholder rice production; plus a storage, milling and marketing company</li> <li>Construction will bring about 1,500 jobs and spin-off to create 300 jobs</li> <li>Includes 32,491 coop members organised in 4 coops</li> <li>Partnership with a commercial rice grower would improve irrigation scheme economics</li> </ul>	\$27m (irrigation scheme); \$2.7m extension & marketing programme	Requires grant support and/or “patient capital” for rehabilitation of flood irrigation scheme/need for finance

Full write-ups of each of the project opportunities are available on [www.beiracorridor.com](http://www.beiracorridor.com)

### Infrastructure Service Companies

Delivering over 16,000 ha of irrigation within 5 years from a standing start is a major task. If this is to be achieved then a competent entity will need to be given responsibility for developing the business plan, arranging finance, building the assets and managing commercial relationships with small and medium size commercial farms and smallholder farmers. The proposal is that one or more ISCs should be established to undertake these tasks. In a later section the suggestion is made that InfraCo, which has a successful record elsewhere in Africa, could perform this role, potentially in partnership with the Government of Mozambique and other local investors.

### Exploiting the opportunity of major mining projects

Commitments to develop major mine projects in Tete Province offer an important, near-term opportunity to accelerate the development of agriculture in the Beira corridor. There are four areas where benefits can be realised:

- the growth of demand for food for the mine workforce and the communities that develop in new major mine townships;
- the development of new mine infrastructure (rail, electricity, water) which may be used by agribusinesses and local communities at low marginal cost where this does not interfere with efficient mine operations;
- there may be scope to extend access by local farmers to electricity and water supply provided for the mines to facilitate irrigated agriculture at low marginal cost; and
- the mine companies have committed to support development of local communities, including agriculture, and they have resources which may expedite ‘on-the-ground’ implementation of smallholder farmer projects in some cases.

It is proposed that another ‘fast track’ action should be to explore actively with the mining companies additional ways in which the mine developments can support agriculture in Tete and the wider Beira corridor.

# Financing the Investment Blueprint

The Investment Blueprint will only be implemented if financing can be mobilised to fund the investments.



*Image 10:  
Farmer  
Market  
Program*

Funding is needed to finance the fixed capital costs and working capital costs of large commercial agribusiness investments, medium size commercial farm/processing hubs and smallholder farmer improvement programmes. Funding is also needed to finance the agriculture-supporting infrastructure investments principally irrigation, without which the small and medium size farm investments will not proceed.

Financing the Investment Blueprint cannot be left 'to the market'. If finance has to be procured on fully commercial terms at this early stage of development, only the large sugar estates are likely to procure the finance needed before investment can proceed. The analysis shows that large estates generate commercial returns on investment even if they self-fund the full cost of infrastructure because they benefit from high yields and economies of scale. Also they often have sponsors regarded as creditworthy by international lenders.

Small and medium size agribusinesses investing at the 'greenfield' stage will rarely be able to finance the investments because:

- Start-up costs (e.g. land clearing) and high unit costs of fixed investment in 'greenfield' agriculture often result in expected returns that are sub-commercial from the perspective of commercial funders in the early years.
- Even if the expected returns are fully commercial (e.g. 15-20% return on equity) the private equity market and DFIs have little interest in pure 'greenfield' agricultural ventures in Africa particularly when the sponsors have a limited track record.
- Commercial lenders are usually unwilling to extend much credit, even for working capital, for start-ups particularly where the sponsor has neither a strong track record nor balance sheet.



Figure 33: Financing problems for medium size commercial investments and smallholder farmer improvement investments

The problem	The result
One-off start-up costs (e.g. land clearance)	Sub-commercial returns in early years
High input costs (e.g. fertiliser) because low volumes / absence of scale	Never get beyond the "greenfield" stage, therefore no "take-off"
Pure "greenfield" stage investment	Private equity has little/no appetite for greenfield risk
Sponsors have limited track record	Private equity has little appetite for unproven sponsors
Sponsors have little/no balance sheet	Therefore early stage equity cannot be sourced
Banks reluctant to extend credit to greenfield investments	Very little working capital available for early stage agricultural investments
Sponsors have no/little track record or collateral to secure loans	Finance especially limited for small farmers unless collateral can be created e.g. warehouse receipts
Domestic credit vary expensive in Mozambique	Even when credit can be accessed cost can be too expensive to use

## Low expected returns prevent the early stage investments taking place so the benefits of scale and scope and learning by doing are never realised

These problems with accessing finance for start-up agricultural ventures in Africa are compounded in Mozambique by the very high cost of local currency borrowing. Even when farmers and agribusiness sponsors can access limited amounts of local currency to fund working capital the cost is typically about 20% per annum. At that cost the farm is rarely profitable.

These financing problems are the consequence of market failures. Low expected returns in the early years result from the absence of economies of scale and scope and the benefits of 'learning by doing' – a classic barrier to entry. Low expected returns prevent the early stage investments taking place so the benefits of scale and scope and learning by doing are never realised.

The inability of 'greenfield' agricultural investments which do show fully commercial expected returns, but have inexperienced and financially weak sponsors, to access finance is a reflection of the very limited amounts of venture capital available from the commercial markets for greenfield investments in African agriculture. The result is that economically attractive investments cannot be financed and therefore do not take place.

If the small and medium size commercial farm investments described in the blueprint are to be implemented there will need to be finance provided by the government and/or the international communities to overcome the obstacles noted above, with the objective of mobilising a much larger amount of private sector capital over the medium term. The proposals set out below argue for targeted financial support from government and the international community so as to:

- Induce sustainable private investment in medium size commercial agribusiness investments and smallholder outgrower/serviced block schemes along the lines set out in the Investment Blueprint.
- Thereby induce rapid growth of commercial agriculture and bring about major improvements in the productivity and incomes of smallholder farmers.

# Financing the Investment Blueprint

## Types of financial support required

Three types of financial support are proposed:

### **Patient capital**

Long term, subordinated capital with a low cost of capital (say, 5–6%) to be used to part-finance the provision of agriculture-supporting infrastructure (especially irrigation). The infrastructure would be leased to medium size and smallholder farmers and the low cost of patient capital would be passed to farmers in lower user charges. Patient capital is repaid over the life of the assets.

### **'Social' venture capital**

Very early stage venture capital which would be used to fund the start-up costs of medium size farm investments and smallholder farmer schemes. Commitment of social venture capital would be tied to commitments by commercial farm investors to implement substantial plans to provide affordable access for smallholder farmers to agriculture-supporting infrastructure, improved access to input supply chains (seeds, fertiliser etc) and to post-harvest facilities (e.g. storage) and end-markets.

### **Working capital facility**

A substantial revolving working capital credit facility is needed which will provide access by medium size and smallholder farmers to the working capital required if the Investment Blueprint is to be implemented. The cost of the working capital facility would need to be subsidised given the high cost of domestic credit.

*Image 11:  
Mango  
Farm,  
Dombe,  
Mozambique*



Without patient capital and new sources of venture capital the potential cannot be realised

A new working capital facility is essential if the investments described in the blueprint are to be implemented

Image 12:  
Probusul  
nursery staff,  
Chimoio



**Patient Capital** would be provided to the ISCs and used to part-finance the costs of agriculture-supporting infrastructure. It will reduce the costs of irrigated agriculture in the early years and thereby induce commercial investment by small and medium size farmers. It will also lever-in private investment into the ISCs as senior debt. Patient capital could either be sourced directly from the international community (as capital invested in a private sector ISC) or from government which would source the capital from international agencies, such as the World Bank and AfDB, in the form of concessional loans and on-lend the capital to the ISCs on patient capital terms.

**Social venture capital** would be funded by government donors, private foundations and/or social impact investors. Social venture capital will lever-in private equity into medium size and smallholder farmer investments by de-risking very early stage investments and bringing opportunities to the point where commercial equity is willing to invest. It will accelerate medium size commercial farm investments and outgrower/serviced block schemes benefitting smallholder farmers. The social venture capital will be sold and replaced with commercial equity once the investment is mature and the proceeds reinvested in new early stage investments.

A new **working capital facility** is essential if the investments described in the blueprint are to be implemented. The facility must increase the availability of credit to small and medium size farmers and be priced at a level that is affordable given the high costs and risks of early stage agricultural investment. There will need to be an element of interest rate subsidy and an element of credit enhancement if the facility is to be effective. There will need to be involvement of the international community in structuring and capitalising this facility.

# Illustrative financing plan

The illustrative financing plan set out below shows how patient capital, social venture capital and the working capital facility induce large scale private investment in agriculture in the Beira corridor.

Figure 35: Indicative financing plan (2010–2030)

Investment type	Total Investment cost	Private equity	Private Debt	Patient Capital	Social venture capital	Working capital facility
Sugar estates	788	315	473	–	–	–
Medium-size mixed farms	349	105	70	–	97	77
ISCs	606	91	303	212	–	–
Total	1,743	511	845	212	97	77
%	100	29	49	12	6	4

The whole of the investment cost of the sugar estates is funded by the private sector. The infrastructure service companies would be funded with patient capital and private sector equity and debt. Not more than 50% of the capital invested by the ISCs would be funded with patient capital in any particular case. In *Figure 35* it is assumed that private sector debt is raised to fund 50% of the capital cost of infrastructure assets, 15% from private equity and the balance is funded as patient capital. Patient capital would be a higher proportion in the early years and reduce significantly over time.



Image 13: Manica scenery mango plantation

The medium size mixed farms are funded in the earliest stages with social venture capital and at later stages private equity and a small amount of term debt is raised to complete full development of each venture. This sort of venture will support only limited amounts of medium term debt. In *Figure 35* it is assumed that debt finances about 20% of the liabilities of these farms (other than working capital).

Working capital for the small and medium size ventures is assumed to be funded entirely with the support of the working capital facility referred to earlier. Once the credit standing of the sector is better established working capital from commercial banks should be available without need for further access to the special facility. Smallholder farmers would also have access to the working capital facility possibly on preferential terms.

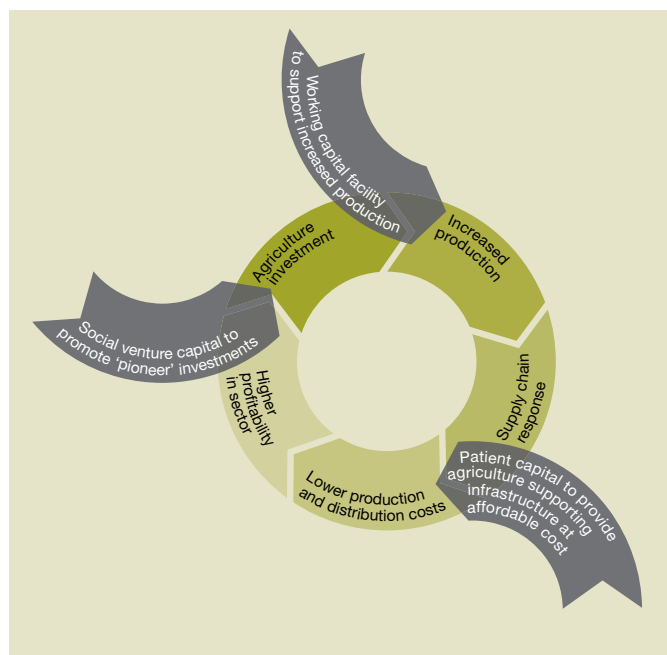
The financing plan includes funding to implement the outgrower/serviced block investments referred to earlier. In addition there will be a need for some grant finance for the public good elements of the investment programmes (e.g. extension services, R&D) and possibly to lower the costs of irrigation services and certain inputs in the earliest years.

The financing plan gives a general indication of the nature and amounts of finance required from the international community over the period and the amount of private sector capital that will be levered-into agriculture in the Beira corridor if it is made available. Approximately 80% of the total capital invested is from the private sector.

To kick-start implementation of the Investment Blueprint there is a requirement in the first five years to create new financing facilities which would be drawn-down over a longer period:

- \$100 million patient capital facility to fund part of the cost of agriculture-supporting infrastructure.
- \$75 million 'social' venture capital fund to catalyse early stage agribusiness investments by medium size agribusinesses and smallholder farmers.
- \$75–100 million working capital facility of the sort described above to fund/support the working capital requirements of medium size farm investments and smallholder farmers.

*Figure 36: Financing facilities will “kick-start” virtuous cycle*



The enormous agricultural potential of the Beira corridor has been known for a long time. All the ‘natural’ conditions - good soil and climate, access to land and water - required for successful development exist. Yet the potential has not been realised.

The Investment Blueprint offers a vision of what success could look like and identifies specific opportunities which can be undertaken immediately to begin the journey towards full realisation of the potential. But the crucial question is ‘How to make it happen?’ What are the key actions that must be taken by the government, the private sector and the international community if the potential is to be fully realised over the next twenty years?

There are four areas, all of which must be addressed:

- Appropriate financing mechanisms – as discussed in the previous section.
- Strong commitment to success by the government, the private sector and the international community.
- Effective mechanisms for coordinating the decision making and actions of public and private sector actors and funders involved in the development of the BAGC.
- Mechanisms for ensuring effective implementation ‘on the ground’ of investments undertaken by sponsors with limited experience and capacity.

### **Appropriate financing mechanisms**

As noted earlier without access to patient capital, social venture capital and an affordably priced working capital facility the private sector investment required to fund the small and medium size agribusiness investments will not happen.

### **Strong commitment from government, private sector and international community**

There will need to be sustained, strong commitment to success from the government of Mozambique, the private sector and the international community. A true public private partnership is needed where the government, private sector and international community each makes a contribution.

Image 14:  
Small farmer  
market  
extension  
program



### Government of Mozambique

There are three areas in which the government of Mozambique will need to demonstrate its support:

- Supportive policy environment.
- Streamlined bureaucratic processes.
- Mobilising public sector finance to complement private sector finance.

The sector policy environment in Mozambique is already broadly supportive of agricultural development. Nevertheless the government may wish to consider new measures to demonstrate its strong commitment to the success of the BAGC initiative. These could include designating the BAGC as an **Agricultural Enterprise Zone (AEZ)**. Private sector companies investing in the AEZ within a limited period, perhaps ten years, would benefit from specific incentives aimed at accelerating growth of agriculture in the corridor. Benefits should focus on reducing investors' entry costs e.g. reduced charges for access to existing and new state-owned infrastructure and facilitating access to the new financing facilities set out earlier, if investors' proposals meet the agreed criteria.

The government should consider streamlining key bureaucratic processes of central importance to the rapid development of BAGC. In particular the existing processes for agreeing land leases and arranging electricity grid connections, while satisfactory in principle, could be streamlined to avoid unnecessary delays in commencing new investments.

The government should also enthusiastically support the proposals for mobilising patient capital to part-finance the costs of new agriculture-supporting infrastructure. Patient capital can be sourced from the World Bank, African Development Bank and other multilateral and bilateral institutions but will only be available for this purpose if the government makes it clear that this is one of its priorities. In addition the government should increase its recurrent expenditure on agriculture particularly on extension services and R&D with funding for these enhanced programmes provided in part by the international community. The provision of this government support should be linked to concrete commitments from the private sector to 'do their part'.

# Making it happen

## Private sector

The potential of the Beira corridor can only be realised with the strong support of the private sector. The international private sector has access to agricultural technologies, management and capital, all of which are needed if the full potential of BAGC is to be realised. The domestic private sector has local knowledge and commitment to successful development of BAGC. The international and domestic private sectors should express their support for the BAGC initiative in tangible ways, such as: confirm their intention to invest at scale in the development of commercial agriculture in BAGC if the government expresses, and delivers on, its commitments; confirm their willingness to work in ways designed to ensure that smallholder farmers share in the benefits, along the lines set out in this report; and individual companies should consider committing to early stage investments in the corridor to establish early momentum.

## International community

The international community should respond enthusiastically to approaches from the government and BAGC partners to provide the financing mechanisms set out earlier in this report. The public private partnership approach set out here provides a real opportunity to ‘kick start’ sustainable, private sector led agricultural development and also achieve widespread poverty reduction. Resources from the international community would be truly catalytic, leveraging-in large amounts of private sector finance and creating a profitable, growing agribusiness sector that could thereafter finance itself largely from commercial sources.

Figure 37: The BAGC partnership







*Image 15:  
Mango  
Nursery  
Produsul*

### **Effective mechanisms for coordinating decision making and actions**

There is a need for effective mechanisms to overcome the co-ordination problem. Implementing the Investment Blueprint involves a series of interconnected investments along the value chain. The co-ordination problem is that the success of an investment at one point in the value chain is often dependent on successful timely implementation of investments by other parties elsewhere in the value chain. For example on-farm investment will often only be profitable if off-farm investments in infrastructure are made as and when planned; investment in processing facilities will only be profitable if farm production grows as and when planned; and investments in improving input supply chains will only pay off if on-farm demand for those inputs grows as and when planned. How can private sector companies minimise the risks of failure by other private sector and/or government parties to complete planned investments on time? The situation is particularly complicated here because there are a large number of parties involved from the private sector, national, provincial and local government and the international community.

**There is a need for effective mechanisms to overcome the co-ordination problem**

### **Beira corridor Partnership**

To address some of these co-ordination problems it has been proposed that there should be a Beira corridor Partnership with a board and small secretariat. Partnership membership would include participants from the private sector, government and the international community. In principle it would be open to anyone with a substantive interest in the development of the BAGC. The main purpose of the partnership would be: to facilitate communication between private sector companies about their respective investment plans when they choose to do so (while recognising the importance of commercial confidentiality and independent decision making); and to facilitate communication between private sector companies and the responsible arms of government when there is a collective private sector view (while recognising that individual companies will wish to deal directly with the responsible arm of government in relation to its own business transactions and that the partnership does not in any way cut across governments' powers and responsibilities).

The Secretariat could play an important role in assisting farmers and entrepreneurs in the agricultural supply chain to access finance and other types of support from government, donors and private investors. Subject to the wishes of BAGC members the Secretariat could also conduct relevant studies (e.g. on ways to improve the business environment) and take on marketing and promotion responsibilities.

# Making it happen

*Image 17:  
Rice Scheme  
irrigation  
canal,  
Quelimane*



## **Mechanisms for ensuring effective implementation 'on the ground'**

There can be no doubt that 'on the ground' capacity to implement the Investment Blueprint does not currently exist. There is a serious lack of entrepreneurs and senior managers with experience of commercial agriculture in Mozambique. There is also a lack of experienced and qualified personnel able to design, build and operate the irrigation assets which are at the heart of the Investment Blueprint. Furthermore smallholder farmers have very limited knowledge of, or exposure to, modern farm practices and substantial extension programmes will be needed to support smallholder farmers in the transition to modern farming.

Whereas international agribusinesses will be able to plan, finance and successfully implement large commercial agribusiness investments, the same is not true when it comes to implementing the small and medium size commercial farm/ processing investments or the agriculture-supporting infrastructure investments. Even if the financing mechanisms described earlier are made available there is a serious risk that the BAGC initiative will not succeed, in the absence of specific mechanisms to strengthen 'on the ground' implementation capacity. In which case the large scale commercial ventures may go ahead but the small and medium size farm investments and the ISCs would fail.

## About InfraCo

InfraCo ([www.infraco.com](http://www.infraco.com)) is a donor-funded, privately-managed project development company which aims to improve access to infrastructure services in low-income developing African countries. Launched in 2005, InfraCo, acting as principal (i.e. owner), develops infrastructure opportunities to the stage where they can attract domestic and international finance, with majority private ownership. By taking on the high costs and risks of early-stage project development, InfraCo makes infrastructure projects happen in situations where they otherwise would not proceed.

InfraCo has a distinctive approach to implementation involving extensive 'on the ground' engagement with local stakeholders and government and capacity building so that businesses can be locally managed as soon as possible. Owned by a charitable trust, InfraCo is an honest broker which structures opportunities that

are socially responsible (e.g. in some cases targeted subsidies may be used to ensure affordability of infrastructure services for the poorest) as well as commercially viable.

Chiansi is an example of a successful development of pro-poor agriculture-supporting infrastructure. It is a \$30m irrigation project to serve a partnership between smallholder farmers and a commercial farm hub in the Kafue district of Zambia, a region that has relied on food aid in five of the past seven years.

Smallholder farmers lack the means to buy capital intensive irrigation equipment, and as a result their yields are very low and they are effectively reduced to subsistence or very low income living. The project developed by InfraCo creatively combines the land which the smallholder farmers own but was previously unutilised to form a commercially viable commercial farm and irrigated outgrower scheme. Irrigation

allows two crops per year, and substantially higher yields. After 25 years ownership of the project and all its assets will revert to the landowners.

Following a two-year period of consultations by InfraCo with local communities and detailed commercial structuring of the project, the first phase (210 ha) is complete. Initial results are impressive with yields of over five tonnes per ha on maize. Patient capital was provided by Emerging Africa Infrastructure Fund, FMO, Lundin for Africa and InfraCo. The full commercial project (2,600 ha) will be developed in four "tiers" over a 3–4 year period. The commercial farm generates commercial rates of return and smallholder farmer incomes will more than triple. The project is replicable in other parts of Zambia and more widely in the southern Africa region.



Earlier it was proposed that agriculture-supporting infrastructure to serve small and medium size farms should be undertaken by special purpose companies, ISCs. One way of dealing with the capacity constraint in provision of irrigation services would be to make the ISCs public private partnership companies in which experienced private sector developers would take responsibility for successful delivery of the agriculture-supporting infrastructure to serve the small and medium size farmers in accordance with detailed plans approved by the government. Patient capital raised by the government (or directly from donors/private foundations) would be used to fund the ISCs to provide the infrastructure assets with the ISC responsible for raising the balance of the required funding from the private sector.

The model for this approach is InfraCo which has a successful track record of developing this type of small and medium size agriculture-supporting infrastructure elsewhere in Africa. InfraCo's unique characteristics include: its 'honest broker' role (it is itself a not-for-profit donor funded public private partnership); its track record of successfully developing infrastructure services companies elsewhere in Africa; and its team of experienced professional developers who work 'on the ground' and very closely with smallholder farmer communities to address and solve problems and 'get things done'.

# Making it happen

InfraCo has a distinctive approach to implementation involving extensive 'on the ground' engagement with local stakeholders and government

*Image 18:  
Principle  
energy sugar  
seed cane*



Even if the ISCs are financed and implemented using this approach there will remain significant implementation capacity constraints for some of the small and medium size farm investments. Experience in the region suggests that there will be large capacity 'gaps' in business planning, financing and technical agronomic aspects of farm development for many years. Programmes of technical support to farmers and others involved in agribusiness in Beira corridor will need to be devised and funded if the benefits are to accrue to small and medium size farmers as well as large agribusinesses. Areas where support will be required include R&D, extension services, workforce training including management skills etc.

Experience suggests that even substantial funding programmes of this sort can have limited and sometimes disappointing results unless there is strong commercial 'on the ground' implementation capacity of the sort that InfraCo provides in the infrastructure 'space'.

The proposal, for consideration by the government, is that AgDevCo would take on the responsibility to ensure timely implementation of some of the small and medium size agricultural ventures in the Beira corridor which lack the capacity to successfully implement on their own. AgDevCo operates in a similar manner to InfraCo except that it is focussed on agricultural development rather than infrastructure. Where a venture involves significant investments in both agriculture and infrastructure InfraCo and AgDevCo may work together.

There are a number of other non-governmental organisations already active in the Beira corridor in the agricultural sector – for example AGRA, ADIPSA, Agrifuturo – all of whom focus primarily on improving the productivity and access to markets of smallholder farmers. There are also a number of social investment funds and promotion agencies (e.g. TransFarm Africa and SNV) which aim to support commercial farming in a manner that benefits local communities. All of these parties and others not identified here will play an important role in making the Investment Blueprint vision a reality.

## About AgDevCo

AgDevCo ([www.agdevco.com](http://www.agdevco.com)) is a not-for-profit agricultural development company that invests in early stage commercial ventures and shapes them to ensure both commercial viability and maximum benefits for smallholder farmers living in the areas adjacent to the commercial hub. AgDevCo works on the ground alongside local entrepreneurs and smallholder farmers to create a profitable business and then seeks to sell

down its interest and reinvest in new early stage ventures. AgDevCo operates subject to commercial disciplines and with an experienced private sector team. AgDevCo is supported financially by the Rockefeller Foundation and private individuals.

AgDevCo<sup>o</sup>

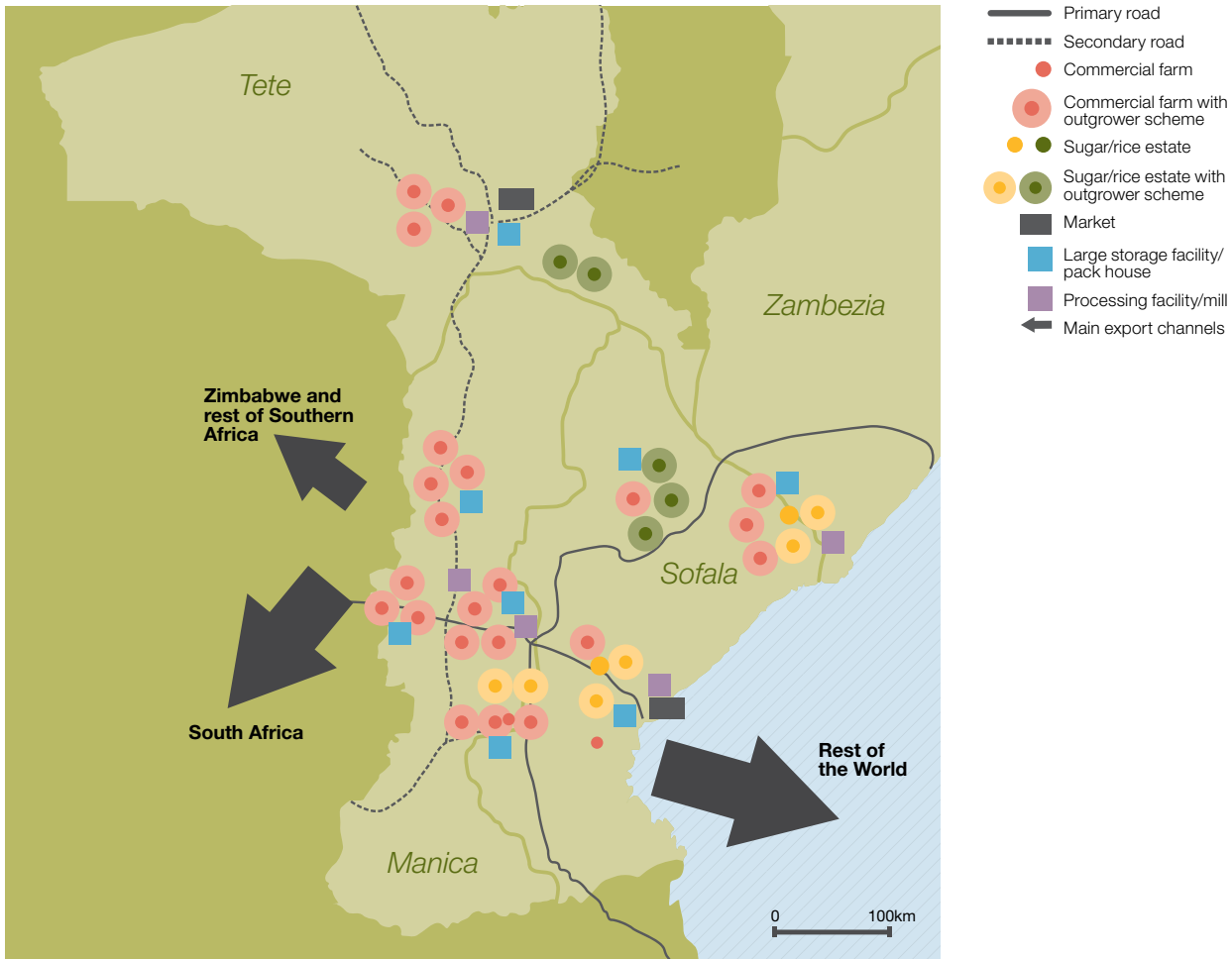
There are a number of other non-governmental organisations already active in the Beira corridor in the agricultural sector

## Next Steps

- Sharing the results of the analysis with the government, the Beira corridor partnership and the international community and seeking their support for the approach outlined here
- Seeking agreement with government and the international community about the funding mechanisms identified here and commitments from international partners to participate in funding these mechanisms
- Seeking agreement with government, the private sector and the international community about strengthened mechanisms to ensure effective coordination of actions by the many parties involved in the initiative
- Seeking agreement with government about appropriate mechanisms to strengthen on-the-ground implementation capacity
- Securing short term funding to establish the BAGC Partnership secretariat, continue the work that has been started to accelerate 'fast track' investments and to provide seed capital for a Catalytic Financing Facility that will provide Social Venture Capital to some of the Fast Track opportunities

# Vision of success 2030

Figure 38: Vision of success 2030



## Vision of success 2030

By 2030 the Investment Blueprint envisages a successful and diversified commercial agriculture sector in the Beira corridor, which establishes Mozambique and the wider region as a major breadbasket area. Although purely illustrative, *Figure 38* above presents a vision of success in central Mozambique by the year 2030 where there are clusters of commercial farms and agribusiness situated along the corridor, with strong links to smallholder farmers through outgrower schemes. The clusters achieve economies of scale which improve competitiveness by driving down production costs and improving access to markets. This allows farmers and other entrepreneurs involved

in the agricultural value chain the opportunity to build profitable and sustainable businesses, generating wide benefits for local communities. Significant volumes are exported to the Southern Africa region and to the rest of the world via Beira Port, although there is also a significant domestic market especially for crops such as rice, wheat, maize and soya.

### For further information contact:

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### **BAGC Partnership Statement**

“Support to commercial agriculture and agribusiness with strong links to smallholder farmers is critical to promote sustainable opportunities for wealth creation and development in rural Africa. The BAGC Partnership endorses coordinated efforts by the public and private sectors to promote socially responsible agriculture; and calls on the international community to provide the necessary catalytic financing to unlock the agricultural potential of the Beira corridor region.”

*The above statement was formally endorsed at the inaugural BAGC partnership meeting, Maputo, 20th January 2010. Over 80 representatives attended from government, the private sector and the international community.*

