PACKAGE INVESTMENT PROJECTS AS PART OF THE PROVINCIAL INDUSTRIAL SYMBIOSIS PROGRAMME FOR TRADE AND INVESTMENT KWAZULU-NATAL

Illovo Bagash Building Blocks Business Project Plan

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Figures and Tables

1. ABBREVIATIONS

Glossary of Terms		
Abbreviation/ Acronym	Term	Definition
SCCP	South Coast Cement Products	A cement manufacturing company in the KZN South Coast
N/A	Bagasse	Fertilizer as registered under ACT NO. 36 of 1947 registration number B4390
DTI-KZN	Department of Trade and Investment / Industry - KwaZulu-Natal	South African trade and inward investment promotion agency, established to promote the province of KwaZulu-Natal
IWMP	Integrated Waste Management Plan	South African Waste Policy document with guidelines to integrate waste management across the various waste types.
KZN	KwaZulu-Natal	KwaZulu-Natal, a coastal South African province
MEC	Member of the Executive Council	A member of the cabinet of the provincial government
USA	United States of America	The United States of America (USA), often called the United States (US) or America is a country in North America. It is made up of 50 states, a federal district, and five territories.

1: Glossary of Terms

2. INTRODUCTION

South Africa, in line with the global move to renewable and cleaner energy and more efficient resource utilisation, has committed to developing industrial policy across all spheres of government (national, provincial, municipal) that supports "Green Investment", industry efficiency and job creation *(inter alia).*

KZN Provincial government has developed a plan to support Industrial Symbiosis. Industrial Symbiosis (IS) has been identified as one of the best ways in which to green the business and industrial sector of the economy.

IS is a concept that hinges on the implementation of a circular economy whereby waste is no longer viewed as a by-product or cost of production, but rather as an input into another economic activity. The concept is based on creating synergies between industries which leads to the creation of new business opportunities and in the process waste is minimized and is converted into re-usable products and resources.

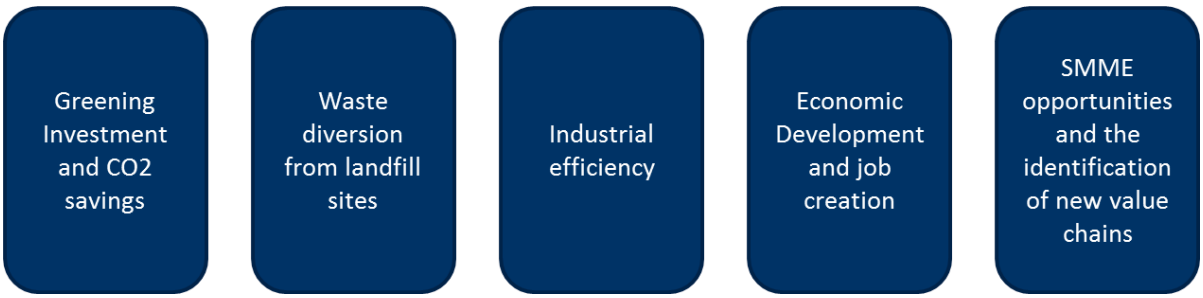
One of the key resources that is exchanged or used as a by-product is energy and hence it is a programme that can assist in the province achieving its alternative energy targets as well as waste reduction and Greenhouse gas emission targets.

A robust business development process and programme management approach has and will be used to deliver on the economic development and job creation opportunities that IS offers.

This document serves to detail the structure of the KwaZulu-Natal Industrial Symbiosis Programme (KISP) and the work that has been conducted this far. Further to this, a list of potential business cases will be presented here for approval by Trade and Investment KZN.

3. PROGRAMME OBJECTIVES

The KZN Provincial government has a vested interest in the implementation of an Industrial Symbiosis Programme. The objectives of the KwaZulu-Natal Industrial Symbiosis Programme (KISP) are summarised by the following diagram:



2: Programme Objectives

The intended objectives of the project are:

- To engage with business and industry to identify project opportunities under the KISP.
- To develop projects to a level at which they can obtain funding or investment. This would include business plans, feasibility studies and financial modelling.
- Co-ordinate engagements with finance institutions to assist with project development finance if needed, as well as work with Investment agencies to identify potential investors for these Industrial Symbiosis projects.
- Promote the Industrial Symbiosis programme within the private sector to enhance understanding and support for its strategic objectives. Promote linkages and synergies with other initiatives in the green economy.
- Provide support to the Provincial KISP Steering Committee

4. DOCUMENT PURPOSE

The purpose of this document is to clarify the goals and means of operation for the setup of a new business partnership between Illovo Sezela and South Coast Cement Products (SCCP). The end user of the document is intended to be SCCP as they will be the primary beneficiaries of the project.

The document may also be used to source financial incentives (including grants, loans, equity partnership etc.).

5. EXECUTIVE SUMMARY

The business plan for South Coast Cement Products (SCCP) aims at establishing the company as a leading supplier of Concrete Building blocks within the south coast region of Kwa-Zulu Natal.

This will be achieved through the establishment of a concrete block making facility on the Illovo Sezela site utilising the latest in block making technology and the company's long history and established relationships within the cement products industry.

Although SCCP has been operating since 1991 primarily supplying cement products, i.e. sand and stone this plan focusses on the establishment of the concrete building block manufacturing and supply division within the company.

The strategic partnership between SCCP and Illovo is a significant competitive advantage which will provide a 20 year supply of raw material (bagasse) as well as reduce the cost of manufacturing the products.

This plan is a one year operational plan and has a nett profit target (before interest and tax) of R600, 720 and a revenue objective of R5, 032,125.

The project start-up costs will be R50, 000 for site establishment costs.

6. PROJECT DESCRIPTION

6.1. Project Background

The Illovo plant, situated at Sezela on the Kwa-Zulu Natal south coast, produces bagasse as a by-product that is registered as a fertilizer with the Department of Agriculture, Forestry and Fisheries. This bagasse is produced from the boiler and sluice process which is then pumped into a dam at a rate of 200 cubic metres per day (300 tons). A certain amount of this bagasse is used as fertilizer on the Illovo cane fields, but the majority is stored there as waste. The current dam is estimated to consist of 1,2 million cubic metres of bagasse. The wall that holds this dam is fast approaching its height limit and at the current rate of storage would need to be extended within the next two years at a cost of R6, 000,000. The alternative will be to identify and utilise another landfill site. This dam wall has also experienced a failure in the past.

Bagasse is currently used in India and the USA as a substituted raw material for river sand and quarry dust in the manufacturing process of concrete bricks and blocks which are used in the construction industry. It is estimated that the utilisation of river sand can be reduced by 60% by replacing a portion of it with bagasse.

The current situation of river sand mining in South Africa is far-reaching. A 2008 study by the CSIR found that 12 large dams on major rivers around eThekwini trapped at least one third of normal river sand flow. Sand supply had been reduced by a further 33 percent by more than 30 sand mining operations on eThekwini's rivers. This study calculated that sand miners removed at least 400 000m3 of sand in 2008 alone, whereas the current natural replenishment was around 140 000m3 a year. The CSIR study raised concerns that some beaches south of Durban

had been retreating at a rate of almost 1m a year since the early 1970s. They were being eroded faster than the rate of natural sand replenishment from rivers. Over the last few years the supply of river sand has been drastically reduced.

Due to this situation and the rapid urbanization within KwaZulu-Natal, there is currently a shortfall of conventional building materials. It was this need as well as the fact that bagasse was being used successfully overseas as a replacement to river sand, that started the discussion between South Coast Cement Products and Illovo Sezela about two years ago. This discussion has now progressed to a stage where operations are being planned to begin in the second half of 2017.

Illovo Sezela has agreed in principle to provide SCCP with a section of land close to the bagasse dam for them to establish a concrete block making facility. Illovo will also ensure that the basic infrastructure i.e. water and electricity is installed there. Over and above this, SCCP will not be charged for the bagasse which will dramatically reduce their material input costs.

It is intended that the board of Illovo Sezela will review the project and approve it in August 2017.

6.2. Project Summary

Project name	Illovo/SCCP Bagasse building blocks
Project description	Bagasse as substituted raw material to river sand and quarry dust in the manufacturing process of concrete bricks and building blocks for supply to the construction industry
Location	Illovo Sugar Limited – Sezela Mill Corner Smuts & Mill Road, Sezela 4215 KZN South Coast
Project sponsor	TI-KZN and Illovo Sugar Limited
Vision and mission	To reduce the utilisation of natural resources and increase the utilisation of waste in the manufacturing of concrete bricks and blocks in KZN
Project scope	Bagasse from Sezela Mill
Project goals and purpose	Use less natural resources in the manufacturing of concrete bricks and blocks by substituting river sand and quarry dust with bagasse. The aim is to extend the outcome of the Illovo Sezela project to other Milling operations in KZN

3: Project Summary

6.3. Project Goals and Purpose

- Reduction to the environmental impact and Greenhouse gas emission targets in KZN through the use of by-product bagasse as a substitute to river sand and quarry dust in the manufacturing of concrete bricks and blocks.
- Creation of new sustainable business opportunities and jobs that result in the development of the local economy.
- To determine the level of assessments and authorisation needed for operations and the development of a model for the replication of the operations.
- To involve all stakeholders in approving Bagasse as input to another economic activity.
- Supply concrete bricks and blocks to the local, regional markets at a competitive price.

7. EXTERNAL ENVIRONMENT ANALYSIS

In order to capture inputs of the external environment that potentially affects the success of the project, a workshop was conducted including all the project stakeholders to brain storm the potential effects to the project.

7.1. Political

Positive	Negative
Political agenda – support the project	Political agenda – reject the project
Climate of political and legal stability in South Africa	Conflict between Political Parties
Political attitude and pressure to employment, protection of the environment and societal reform	Levels of corruption
No legal framework for cement brick and block manufacturing in South Africa	

4: Political Environment

7.2. Economic

Positive	***Negative***
Growing building and construction markets	Availability of credit to customers
Project - employment opportunities	Unemployment in KZN
Low skills level needed to successfully operate facility	Increase in Labour cost trends
Bagasse as raw material input comes at no cost	Reduction in demand due to increasing inflation rates
Brick and block manufacture knowledge	Introduction of trading regulation / conditions in the concrete bricks and blocks industry

5: Economic Environment

7.3. Social

Positive	Negative
Project creating jobs in supportive poor community	Local traditional leaders not in support of project
Solid legal framework employed in South Africa	Labour / community unrest due to operator not conforming to legal framework
Use less quarry dust and sand from rivers	Transport process – dust on road / health issue
Capability and skills pool	Community / public not accepting new environmental impacts (dust and noise)
Profitability of building and construction markets	Accidents due to failure / quality of bricks or blocks

6: Social Environment

7.4. Technological

Positive	Negative
Technology of using Bagasse as replacement of river sand and quarry dust regulated and proven in India and the USA	Using Bagasse as input material to concrete bricks and blocks not proven in South Africa
Concrete bricks and blocks currently manufactured throughout South Africa by making use of river sand and	Project not viable due to requirements from Regulators in South Africa

quarry dust as input material	
Concrete brick and block manufacturing industry not controlled / regulated in South Africa currently	Legal liability towards litigation in the event of brick or block failure
Illovo Sezela not seeing brick and block manufacturing as part of their core business by partnering with company with experience	Investment into atomisation of technology
From studies in India the cement brick or block manufactured with Bagasse is stronger	
Availability of equipment for current pilot	

7: *Technological Environment*

7.5. Environmental

Positive	**Negative**
Reduce the use of river sand during the manufacturing of bricks and blocks	New operations will introduces new environmental impacts e.g. noise and dust
Reduce the use of quarry dust during the manufacturing of bricks and blocks	New operational site will have negative impact on the environment due to clearing and covering of natural soil surfaces and to redirection of rain waterways.
Reduction in the use of river sand and quarry dust during the processing of cement ready-mix	
From the growing phase of sugar cane to zero principal raw material or waste results in neutralisation in the co-generation process of greenhouse gas emission	

8: *Environmental Environment*

7.6. Legislative

Potential applicable legislation identified as follows:

- Biodiversity Act, 2004 (Act No. 10 of 2004
- Compensation and Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993)
- Construction Industry Development Board Act, 2000 (Act No .38 of 2000)
- Consumer Protection Act, 2008 (Act No. 68 of 2008)
- Housing Amendment Act, 2001 (Act 4 of 2001)
- Labour Relations Act, 1995 (Act No. 66 of 1995)
- Landscape Architectural Profession Act, 2000 (Act No. 45 of 2000)
- Mine Health and Safety Act, 1996 (Act No. 29 of 1996)
- Mineral and Petroleum Resources Development Act, 2002
- National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977
- National Energy Act, 2008 (Act No. 34 of 2008)
- National Environment Management: Air Quality Act, 2004
- National Environmental Management Act, Act 107 OF 1998
- National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
- National Health Act, 2003 (Act No. 61 of 2003)
- National Heritage Resources Act, 1999 (Act No. 25 of 1999)
- National Road Traffic Act, 1996 (Act No. 93 of 1996)
- Occupational Diseases in Mines and Works Act, 1973 (Act No. 78 of 1973)
- Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
- Water Services Amendment Act, No. 30 of 2004

Positive	Negative
Solid legal framework employed in South Africa	Requirements that Regulators may be time consuming, costly and making the project not attractive
No legal framework for cement brick and block manufacturing in South Africa	Industry may be regulated in near future
	Legal liability towards litigation in the event of brick or block failure

9*: Legislative Environment*

Note: After careful consideration none of the PESTEL factors warranted a countermeasure being developed at this stage.

8. INTERNAL ENVIRONMENT ANALYSIS

The following internal factors could have an influence on the successful implementation of the project:

a. Strengths

- Capability and skills pool
- Political attitude and pressure to employment, protection of the environment and societal reform
- Technology of using Bagasse as replacement of river sand and quarry dust regulated and proven in India and the USA
- Availability of Bagasse at Sezela Mill
- Availability of tools and equipment from the operator for the pilot
- Various small and larch scale brick and block manufacturers order sand from the current potential contractor.

b. Weaknesses

- Understanding of requirement from all Regulators in South Africa
- Project not attractive due to requirements from Regulators in South Africa

c. Opportunities

- Expanding the project to other Mills
- Supply product less then market standard price
- Doing the right thing to protect the environment
- Introduction of trading regulation / conditions in the cement bricks and blocks industry
- Growing building and construction markets
- Supply nearby small scale brick and block operation

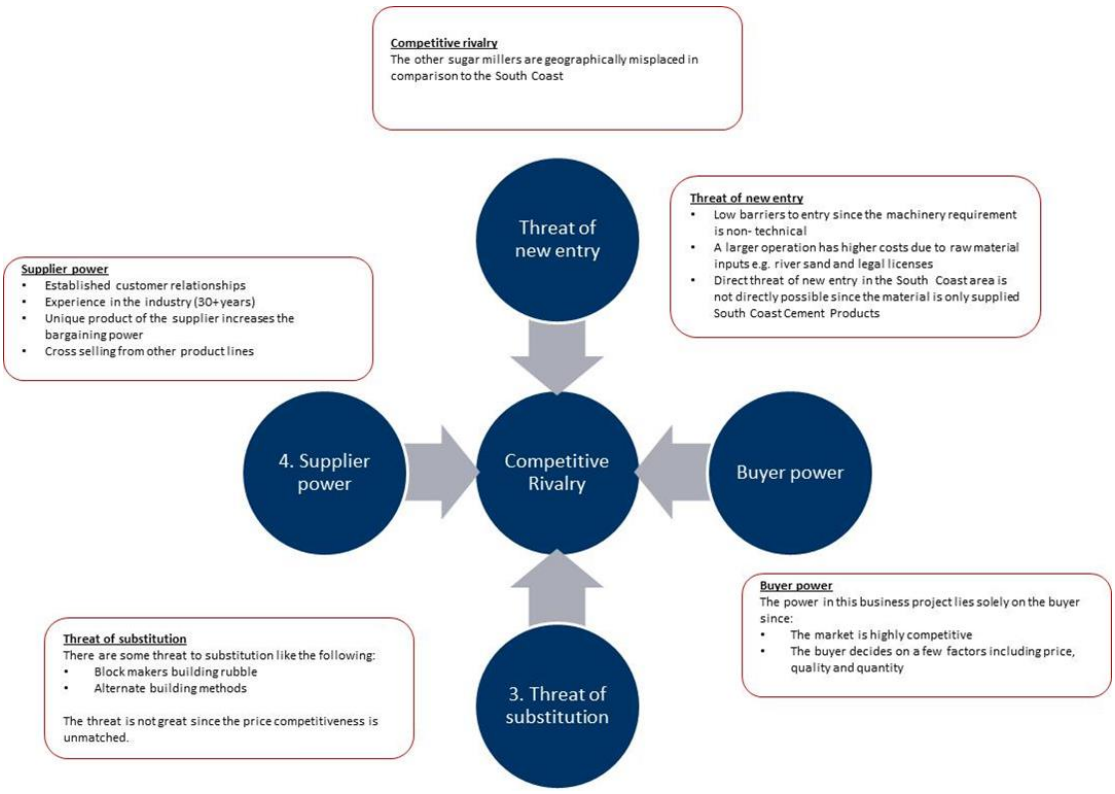
Threats

- Non-acceptance by Illovo Sugar (South Africa) Ltd Board

- Department of Mineral and Resources and Department of Environmental Affairs - Level of authorisation required
- MEC`s DTI, Agriculture, Environmental Affairs and Rural Development KZN – Approval of process / approach to be followed
- Disputes with nearby small scale brick and block operation
- Public acceptance

9. INDUSTRY ANALYSIS

9.1. Industry Overview



10: Porter's 5 Forces

9.2. Key Success Factors

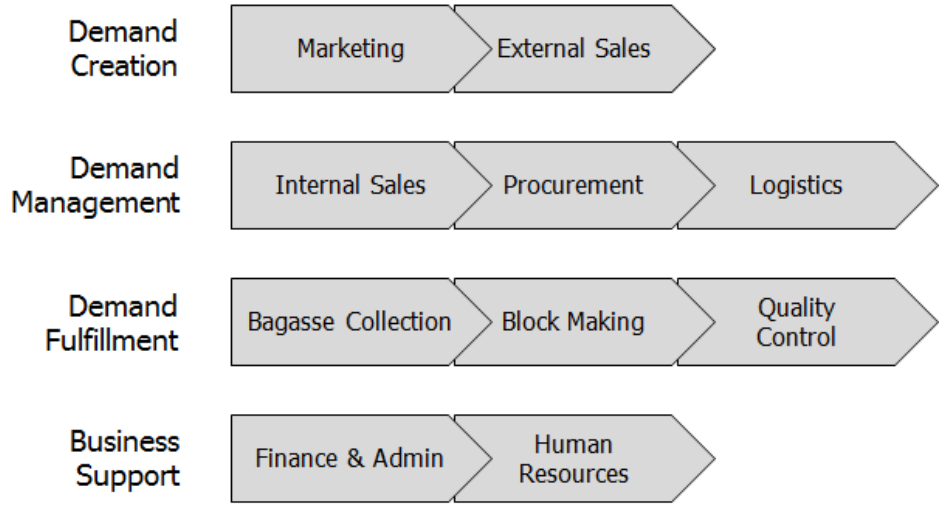
The following factors are key to succeeding in manufacturing and supplying concrete building blocks:

- Good supplier relationships
- Cost competitiveness (most influential)
- Quality of product
- Availability of product

10. ORGANISATIONAL STRUCTURE

10.1. Business Processes

The business process for the Concrete Block making division will be as follows:



11: Business Process Map

10.2. Personnel Requirement

The personnel requirement in order to carry out the above process will be as follows:

Area	Team Leader	Supervisor	Process	Function
Demand Creation	General Manager		Marketing & External Sales	External Sales
Demand Management	General Manager		Internal Sales	Sales Clerk/Admin/Receptionist
			Procurement	Buyer (Currently employed by SCCP)
			Logistics	Admin (above)
				Driver x1 Labour x2
Demand Fulfilment	Production Manager	Bagasse Site Supervisor (Excavator Operator)	Bagasse Collection	
				Excavator Operator
				FEL Operator
				Dump Truck Operator x2
		Block Yard Supervisor	Block Making	Mechanic (Currently employed by SCCP)
				Mixer Operator
				Plant Operator x2
				Forklift Operator
				Packer x4
				General Labour x8
			Quality Control (PM)	
Business Support	General Manager		Finance & Administration	Bookkeeper (Currently employed by SCCP)
			HR (GM)	

12: Personnel Requirement

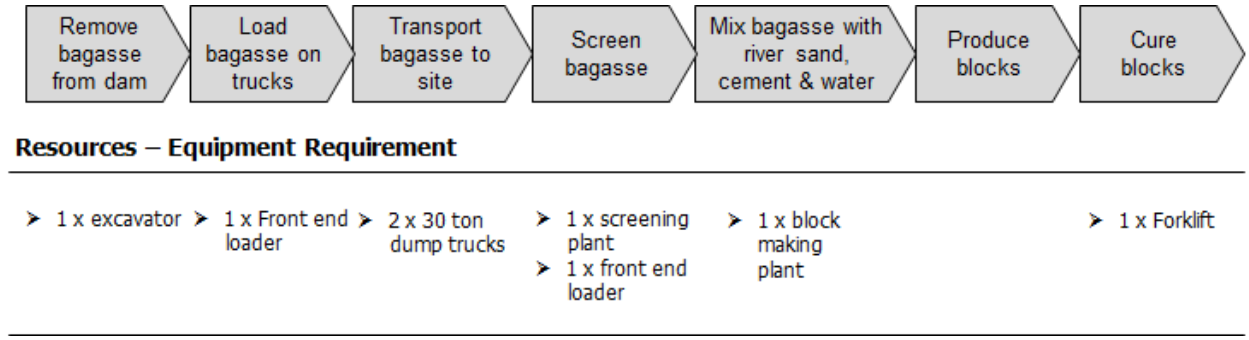
10.3. Personnel Budget (New Employees - Monthly)

Function	Number Required	Cost per Person	Total Cost
Production Manager	1	R 7 000,00	R 7 000,00
Block Yard Supervisor	1	R 5 000,00	R 5 000,00
Sales Clerk/Admin/Receptionist	1	R 5 340,00	R 5 340,00
Driver	1	R 3000,00	R 3 000,00
General Labour	10	R 2650,00	R 26500,00
Excavator Operator	1	R 5 000,00	R 5 000,00
FEL Operator	1	R 5 000,00	R 5 000,00
Dump Truck Operator	1	R 4 500,00	R 4500,00
Mixer Operator	1	R 3 300,00	R 3300,00
Plant Operator	2	R 3 300,00	R 6600,00
Forklift Operator	1	R 4 500,00	R 4 500,00
Packer	4	R 2640,00	R 10560,00
Total	**25**		**R 81300,00**

11. TECHNICAL AND OPERATIONAL PLAN

11.1. Demand Fulfilment Process

The operational process will be as follows:



13.Demand Fulfilment Process

11.2. Capital Equipment Requirement

In order to carry out the above operation, the following capital equipment will be needed:

Equipment	Quantity	Cost	Notes
Excavator	1	Nil	Currently owned by SCCP
Front End Loader	2	Nil	Currently owned by SCCP
20 Ton Dump Truck	2	Nil	Currently owned by SCCP
Screening Plant	1	Nil	Currently owned by SCCP
Block Making Plant	1	Nil	Currently owned by SCCP
Forklift	1	Nil	Currently owned by SCCP
TOTAL CAPITAL REQUIREMENT	**8**	**Nil**	

13: Capital Equipment Requirement

The image below is the block making plant:

The above plant has the capacity to produce 110 000 concrete blocks per month.

11.3. Raw Material Requirements

Product	Raw Material	Cost
Concrete Building Block	Cement	R 68 per 50kg bag
	River Sand	R117 per m^3 delivered to site
	Water	R10,000 per month
	Bagasse	R60 per m^3 (including extraction cost)

14: Raw Material Requirements

11.4. Business Premises Layout (site Establishment)

Illovo Sezela will provide SCCP with a site to establish a block making facility. This site will be supplied rent free and will include the following:

- Offices
- Storeroom
- Workshop
- Ablution facilities
- Water and electricity infrastructure

SCCP will provide the following additional facilities:

- A 4mx10mx100mm concrete slab
- Ground compaction for stockpile area
- The above site establishment will cost approximately R50,000

12. MARKET ANALYSIS

12.1. Market Area

The primary geographic market area has been identified as the area between Hibberdene and Amanzimtoti (approximately 80km) along the Kwa-Zulu Natal South coast and approximately 40km inland.

15:Market Area

12.2. Market Overview (Current)

The estimated market breakdown for the above area is as follows:

Market Segment	% of Total Market	Block Quantity (per month)
Low Cost Housing	15%	150 000
Private Low Cost Housing	45%	450 000
Private Middle/Upmarket Housing	15%	150 000
Industry/Commercial/Retail Development	20%	200 000
Infrastructure	5%	5 000
TOTAL	**100%**	**1 000 000**

16: Market Segment

- A low cost house (90 square metres) can be estimated to be 1200 blocks.
- 1500 low cost houses to be built in KZN South Coast in the next year.
- The most common size blocks being used are:
- 400x200x140 (6 inch)
- Standard weights for the above are approximately 14kg.
- The current minimum strength specification is 2,5MPa, but generally the current building blocks are around 3,5MPa.

12.3. Market Segmentation

The key customer segments within this area are as follows:

- Building Material Suppliers
- Builders
- Property Developers
- Private Individuals (DIY)
- Government Departments

12.4. Industry Size

It is estimated that 1 million blocks per month are used in the KZN South Coast Area.

12.5. Growth Potential

Upcoming developments within the KZN South Coast region in the next decade include:

- Rynie Shore Hills
- Finningly Estate
- Port Edward Hospital
- Port Edward mall
- Ellingham Hospital
- Kelso Water Park
- Hibiscus Coast Retirement Village 500 Units (Cannonbrae)
- Isonti Low Cost Housing Phase 2
- Polar Refrigeration Development at Ifafa
- Imraan Textile Mill Building in Park Rynie
- Various Industrial complexes
- Department of housing

12.6. Competitor Analysis

The following are the concrete block making companies that supply product to the target market:

Competitor	Type	Product	Competitive Advantage	Selling price
Hooper Brick & Block's	Concrete Block Manufacturer	6 inch blocks	Supply current market	R6,90 per block
Country Stone	Concrete Block Manufacturer	6 inch blocks	Supply current market	R7,10 per block
Super Trade Brick & Block's	Concrete Block Manufacturer	6 inch blocks	Supply current market	R6,80 per block

17: Competitor Analysis

13. MARKETING PLAN

13.1. Positioning Strategy

To create the perception of value by providing a higher quality, green concrete building block at a lower price than the competitors.

13.2. Competitive Strategy

A differentiation based strategy will be pursued by focusing on providing a unique product within the niche target market. The competitive strategy can be summarised as the concrete building blocks being:

- Greener
- Stronger
- Lighter
- Cheaper

13.3. Marketing Objectives

To build a loyal customer base based on relationships and quality of product and service.
To target the following market segments within the KZN South Coast region.

Market Segment	No. of Customers
Block Makers	11
Building Contractors	19
Building Suppliers	23
Private - DIY	10
Grand Total	**63**

18: Marketing Objectives

Note: Government tenders will be targeted at a later stage.

- To attain a market share of 10% (of total blocks sold) within the next 12 months.
- To attain a customer base of 60 customers within the next twelve months (80% are current customers).
- To attain total sales of 100, 000 blocks and R510, 000 per month.

	Quantity of Blocks		
Market Segment	**Monthly**	**Annual**	**% Sales**
Building Contractors	35000	420000	35%
Private - DIY	20000	240000	20%
Building Suppliers	45000	540000	45%
TOTAL	**100 000**	**1 200 000**	**100%**

19: Production

- To achieve a gross profit of 36%.

13.4. Product

13.4.1. Product Objectives

To provide customers with a range of concrete building products that are designed to meet their needs, namely:

- Quality products
- Cost effectiveness

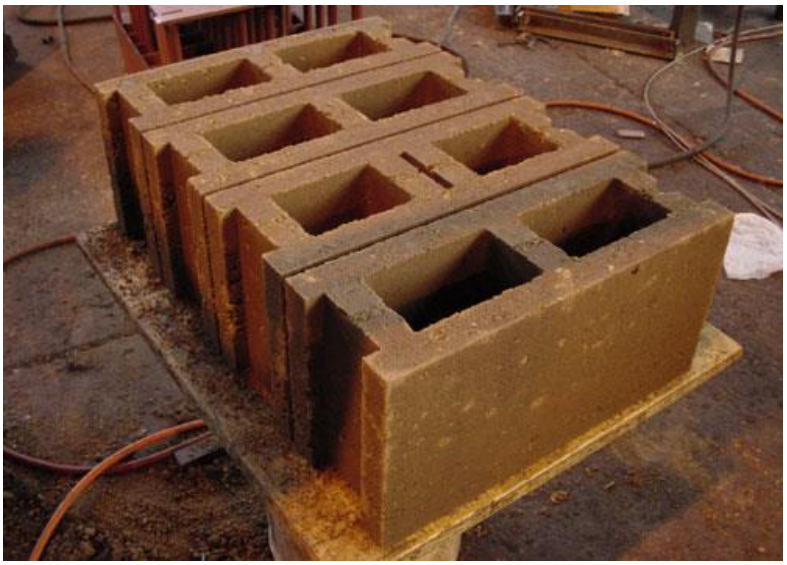
13.4.2. Product Strategy

The product strategy is summarised as follows:

Industry Success Factor	**Bagasse Building Blocks**	
	Meet Requirement	Competitive Advantage
Core Product		
Peace of mind	√	
Actual Product		
Functionality	√	
Reliability	√	√
Durability	√	√
Augmented Product		
On-site delivery	√	
Quick response times	√	
Availability of product	√	
Problem solving ability	√	√
Cost-effective solutions	√	√

The product range will consist of the following:

- 400x200x140 (6 inch) Concrete Building blocks



The specifications of the building blocks will be:

- Size 400 X 200 X 140 (6 inch)
- Wight 10,4kg with deviation of +/- 1Kg
- Strength 4.5MPa with deviation of 0.5MPa

The product compared to competitors is as follows:

Element	Current Concrete Blocks	SCCP Concrete Blocks
Key Input Materials	Cement, River sand, Crusher dust, Water	Cement, River sand, Bagasse, Water
Size	400x200x140	400x200x140
Weight	14kg	10,4kg
Strength	3,5MPa	4,5MPa

20: Product Comparison

Note: The SCCP blocks will be 25% lighter than the current blocks on the market which will have the following benefits:

- Handling – easier for workers to load and build with.
- Transport – more blocks can be transported per load which will have a cost benefit.

13.5. Promotion

13.5.1. Promotion Objectives

The communication objective is aimed at creating awareness within the target market of the availability and benefits of using the products.

13.5.2. Promotion Strategy

Publicity

Articles will be placed in the above publications on a regular basis when the following occurs:

- Launch of products into market place.
- Any major supply contracts.
- Any product developments.

Personal Selling

- Direct selling will be the primary promotional activity, maximising the existing customer relationships and building new ones.
- Initially, this function will be carried out by the General Manager.
- Customers who purchase other products from SCCP, e.g. river sand, will be informed about the concrete block products.

Brochures

- Product brochures will be developed which will clearly communicate the product advantages, features and benefits, to leave with prospective customers.

Social Media

The social media strategy will include posting the following content on Facebook, Instagram and Twitter:

- Launch of products into market place.
- Any major supply contracts.
- Any product developments.
- Product applications.
- New distribution channels.

Word of Mouth

Word of mouth, which plays a significant role in communication in this region and industry will also be relied on to promote the product.

13.6. Packaging

13.6.1. Packaging Objectives

The packaging objective is aimed at providing the product to customers in the most user friendly and convenient manner.

13.6.2. Packaging Strategy

- The concrete blocks will be stacked on wooden pallets (approximately 60 blocks per pallet).
- Customers will be charged a deposit for the pallets (R120 each) which will be refunded when the pallets are returned.

13.7. Placement (Physical Distribution)

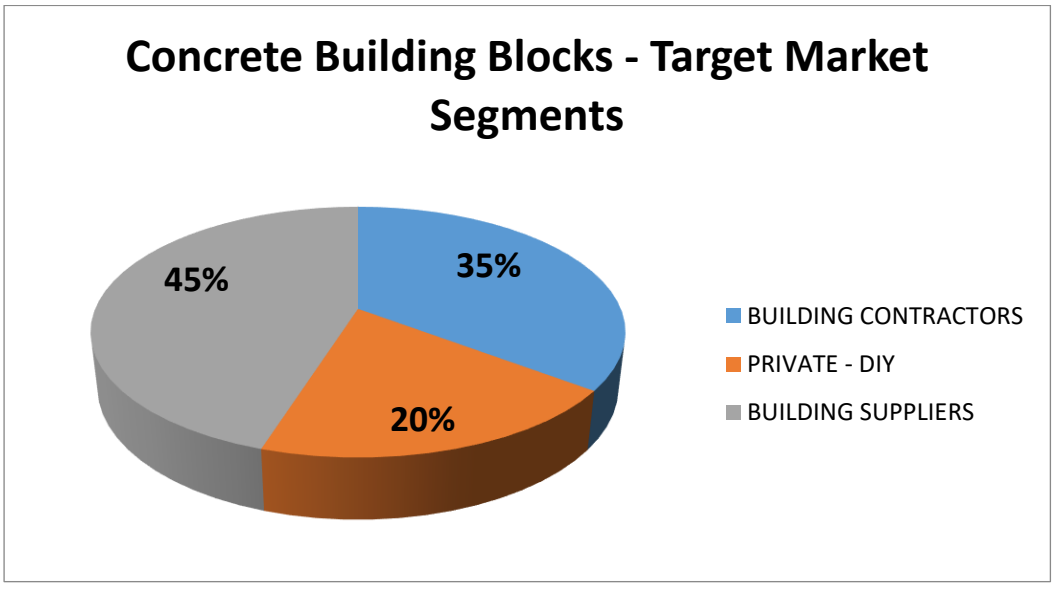
13.7.1. Placement Objectives

The distribution objective is to ensure that the products are made easily and readily available to customers in the most effective and economical manner.

13.7.2. Placement Strategy

The strategy will be one of centralized manufacturing and distribution (from our Sezela site) through the following:

The breakdown of the target market within this area is as follows:



21: Target Market Segments

Distribution Channels

- Supply will be directly to the target market segments.
- Customers will be able to collect or SCCP will deliver to their site for a nominal fee.

Inventory

- Stock of one month projected sales (100 000 blocks) will built up and carried in order to have stock in the event of weather or supplier problems.

Physical distribution

- Deliveries will take place during normal working hours, Monday to Saturday.
- Delivery lead times will be 48 hours from placement of order.

Transport

- Deliveries will take place using a 7 ton truck (currently owned by SCCP).
- If additional trucks are required, these will be hired.
- Customers will be charged for transport at R0, 90 per concrete block within a 20km radius of the plant. This will increase proportionately as the distance increases.

13.8. Pricing

13.8.1. Pricing Objectives

Pricing will be such that the products remain competitive and that the positioning strategy and financial objectives are achieved.

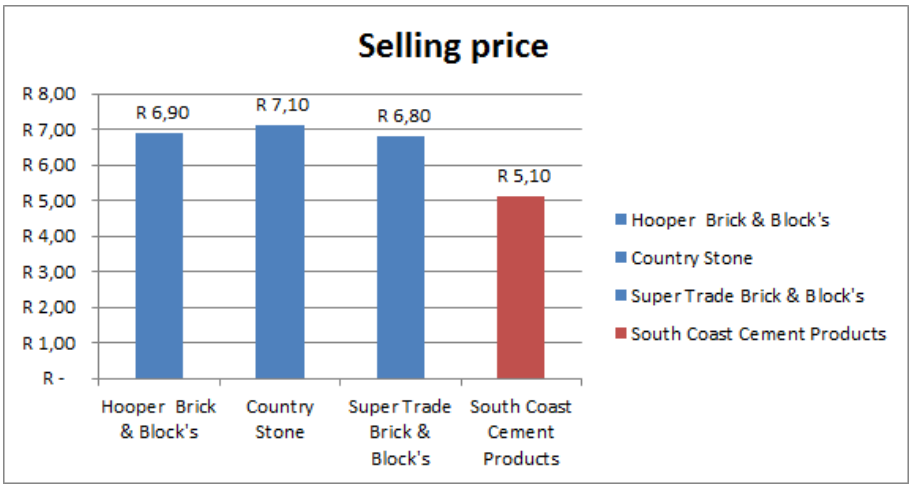
13.8.2. Pricing Strategy

- The pricing policy will be based on a cost plus 55% basis.
- The retail price list will be as follows:

Product	Cost of Sales	Selling price	GP %
6 inch Concrete Blocks	R3,25 per block	R5,10 per block	36%

22: Pricing

The selling price compared to competitors is as follows:



23: Selling Price Comparison

14. RISK ANALYSIS

Risk	Mitigation strategy
Non availability of cement	Short term: Carry one month's sales inventory. Source from NPC, AfriSam and Lucky Long term: Develop an in house batching plant
Inclement weather prohibiting production	Carry one month's sales inventory.
Interrupted supply of electricity	Short term: Carry one month's sales inventory. Long term: Purchase a generator

24: Risk Analysis

15. FINANCIAL PLAN

15.1. Profit and Loss Statement Projections

Profit and Loss Statement

	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
Total Sales Revenue	79 875	159 750	266 250	372 750	426 000	532 500	532 500	532 500	532 500	532 500	532 500	532 500
Total Cost of Sales	48 750	120 000	200 000	280 000	320 000	400 000	400 000	400 000	400 000	400 000	400 000	400 000
Gross Profit	**31 125**	**39 750**	**66 250**	**92 750**	**106 000**	**132 500**	**132 500**	**132 500**	**132 500**	**132 500**	**132 500**	**132 500**
Total Operating Expenses	35 065	37 690	41 190	44 690	46 440	49 940	67 940	67 940	67 940	67 940	67 940	67 940
Income from Operations	**-3 940**	**2 060**	**25 060**	**48 060**	**59 560**	**82 560**	**64 560**	**64 560**	**64 560**	**64 560**	**64 560**	**64 560**
Other Income												
Total Taxes	-713	-293	1 317	2 927	3 732	5 342	4 082	4 082	4 082	4 082	4 082	4 082
Net Profit	**-3 227**	**2 353**	**23 743**	**45 133**	**55 828**	**77 218**	**60 478**	**60 478**	**60 478**	**60 478**	**60 478**	**60 478**

25: Profit and Loss Statement Projections

15.2. Cash Flow Statement Projections

Cash Flow Budget													
		Jun '17	Jul '17	Aug '17	Sep '17	Oct '17	Nov '17	Dec '17	Jan '18	Feb '18	Mar '18	Apr '18	May '18	Total
Beginning Account Balance														
Beginning Cash Balance		R 0.00	R 21 060.00	R 23 120.00	R 48 180.00	R 96 240.00	R 155 800.00	R 238 360.00	R 302 920.00	R 367 480.00	R 432 040.00	R 496 600.00	R 561 160.00	
Cash Inflows (Income):														
	Total Cash Inflows	R 104 875.00	R 159 750.00	R 266 250.00	R 372 750.00	R 426 000.00	R 532 500.00	R 532 500.00	R 532 500.00	R 532 500.00	R 532 500.00	R 532 500.00	R 532 500.00	R 5 057 125.00
Available Cash Balance		R 104 875.00	R 180 810.00	R 289 370.00	R 420 930.00	R 522 240.00	R 688 300.00	R 770 860.00	R 835 420.00	R 899 980.00	R 964 540.00	R 1 029 100.00	R 1 093 660.00	R 7 800 085.00
Cash Outflows (Expenses):														
	Subtotal	R 83 815.00	R 157 690.00	R 241 190.00	R 324 690.00	R 366 440.00	R 449 940.00	R 449 940.00	R 449 940.00	R 449 940.00	R 449 940.00	R 449 940.00	R 449 940.00	R 4 323 405.00
Other Cash Out Flows:														
	Subtotal	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 0.00	R 18 000.00	R 18 000.00	R 18 000.00	R 18 000.00	R 18 000.00	R 18 000.00	R 108 000.00
	Total Cash Outflows	R 83 815.00	R 157 690.00	R 241 190.00	R 324 690.00	R 366 440.00	R 449 940.00	R 467 940.00	R 467 940.00	R 467 940.00	R 467 940.00	R 467 940.00	R 467 940.00	R 4 431 405.00
Ending Cash Balance		R 21 060.00	R 23 120.00	R 48 180.00	R 96 240.00	R 155 800.00	R 238 360.00	R 302 920.00	R 367 480.00	R 432 040.00	R 496 600.00	R 561 160.00	R 625 720.00	

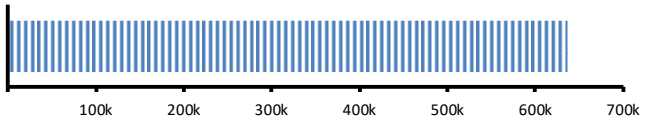
26: Cash Flow Budget

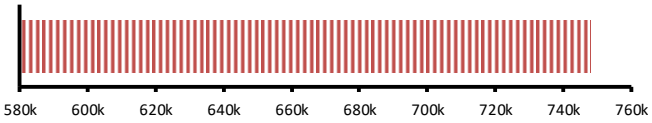
15.3. Balance Sheet Projection

BALANCE SHEET

A. South Coast Cement Products

CURRENT RATIO	1.60	CASH RATIO	0.10
QUICK RATIO	0.31	WORKING CAPITAL	R 150 918.00





ASSETS

CURRENT ASSETS		
Cash and cash equivalents	R	25 000.00
Short-term investments	R	-
Accounts receivable	R	53 000.00
Inventories	R	325 000.00
Deferred income taxes	R	-
Prepaid expenses and other current assets		
TOTAL CURRENT ASSETS	R	403 000.00

OTHER ASSETS		
Property, plant, and equipment at cost	R	500 000.00
Less accumulated depreciation	R	100 000.00
Property, plant, and equipment (net)	R	400 000.00
Long-term cash investments	R	-
Other assets	R	200 000.00
TOTAL OTHER ASSETS	R	600 000.00

TOTAL ASSETS	R	1 003 000.00

LIABILITIES

CURRENT LIABILITIES		
Loans payable and current portion long-term debt	R	200 000.00
Accounts payable and accrued expenses	R	48 000.00
Income taxes payable	R	4 082.00
Accrued retirement and profit-sharing contributions	R	-
TOTAL CURRENT LIABILITIES	R	252 082.00

OTHER LIABILITIES		
Long-term debt	R	1 000 000.00
Accrued retirement costs	R	-
Deferred income taxes	R	-
Deferred credits and other liabilities	R	-
TOTAL OTHER LIABILITIES	R	1 000 000.00

TOTAL LIABILITIES	R	1 252 082.00

27: Balance Sheet Projections