

# **Bulembu Dairy**

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Final Project Summary Report

## 1 - Intro

Bulembu Dairy met multiple achievements during its “establishment” phase including the completion of all building renovations and construction, herd development and successful market penetration. Ultimately, the goal of this period was to establish the enterprise, ensure quality of product and have all supply be sold through local and external markets. Not only has Bulembu Dairy met all of these goals, while doing so it has provided a vital product to the community and to the growing orphan care program in Bulembu.

Summary Synopsis: Currently there are 28 cows in milk (of a herd encompassing 48 cows total), producing an average of 14.5 liters per cow per day, totaling over 400 liters a day. Approximately 60% of current production is sold as emasi (sour milk) and 35% as fresh milk. The remaining 5% is processed to yogurt, cream and butter. In coming weeks Bulembu Dairy will have an increase in milk production due to the second herd coming into milk.

By the opening up a store in the local neighboring town of Piggs Peak, Bulembu was able to penetrate the Piggs Peak market and significantly increase demand. To date, nearly 250 liters a day of emasi and 40 liters of milk are sold from this site where supply is out on a daily basis.

Bulembu is extremely satisfied with the state of the dairy business and the progress it has made in the 1 year it has been operating. However, there are still many areas where there can be improvement including an expanded product offering, high production per cow yields and the establishment of a product supply network utilizing local entrepreneurs and increasing the capacity of the local community.

## 2 - Achievements

Bulembu Dairy has accomplished many achievements since the project launched in January 2009. As it was an established as a new project, many of the achievements evolve around capital enterprise installments. To this extent, these achievements can be summarized by the successful installment and renovation of the parlour building, pasture, milking equipment and that there is a healthy herd sustained by the current pasture.

### **Construction:**

By June 2009 construction to the parlour was completed. This development included all necessary components to a modern dairy from the kraal and handling facilities to bulk tank room and processing room.

### **Pasture Development:**

Clearing of the old golf course begin in May 2009 and involved a heavy amount of de-stumping, clearing and leveling of certain areas. Planting of kukuyu runners continued throughout the year. By January 2010 full kikuyu cover had not been achieved, so it will be continued in spring 2010. The pasture received an annual potassium and phosphate fertilizer application and ryegrass seed was over-sown in order to provide winter forage for the herd. The pasture has been completely fenced including an area for a quarantine camp, several calf and dry cow camps. Lastly, a drag line irrigation system has been installed, making it possible to

irrigate the majority of the 15 hectare of pasture. (Although listed in the original budget, irrigation was expensed to village infrastructure)

**Equipment and Livestock:**

The Parlor has fitted with a Waikato 10 point swing-over milking machine which is modern but simple, making it an ideal choice in an isolated location like Bulembu. Two cooling tanks, a standby generator, bulk pasteurizer, spray race, calf rearing pens and feed managers were all purchased and installed.

Bulembu Dairy now has 48 pregnant heifers which have all been imported from South Africa since the project conception.

**Staff Development:**

When Bulembu Dairy was launched only one of the labourers employed had any previous dairy experience. Since, all staff has received on-the-job training, and has progressed extremely well. Structured training has also been offered and was undertaken by the dairy staff in the form of a week-long course presented by the Milk Producers Organization of South Africa.

**Marketing and Product Production:**

Bulembu opened a retail outlet in Piggs Peak in March 2010, from which Bulembu dairy products are sold. Demand has been strong, outstripping the ability to supply. Consequently milk is no longer supplied to Parmalat. Average price realized per liter has increased significantly over the last year.

Following the acquisition of a cream separator and butter churn, the range of dairy products produced has increased to include cream, butter and yogurt.

In initial market analysis' there was concern that it would take a considerable length of time to successfully penetrate the market, as Swazis are very loyal consumers to already established products. This was especially the concern for emasi. However, given the wide range of Bulembu products (bread, milk, honey, emasi, etc) market penetration was successful quicker than anticipated. To this extent, the business will not only reach sustainability, but become an income generating enterprise far quicker than anticipated.

**Enterprise Sustainability:**

One of the biggest achievements is that Bulembu Dairy has established itself as an income generating, sustainable business in Bulembu. Before the end of 2010, Bulembu Dairy will be generating a steady, reliable income stream to the community.

Now that the core foundations of the business have been achieved, future expansion will be increasingly less difficult, as demand continues to grow. Although expansion will not considered for years, the opportunity exists and is known to be profitable given the strong foundations of Bulembu Dairy.

### 3- Project Evaluation

Bulembu Dairy has had many impacts on the community, some which were anticipated and others which were not expected. The business has been well received by the community and the products have “caught hold” quicker than predicted. The Dairy business has put necessary pressure on Bulembu Enterprises to open a general store in Piggs Peak, which has proved to be a great distribution avenue for all Bulembu products including bottled water, honey, milk, maize, emasi, yogurt, bread, butter, crafts, etc.

Dairy products, in conjunction with the bakery, have also created a deeper sense of community by the opening of a sales point in Bulembu. Community members now can open an “account” at the store and then throughout the month purchase products. The store front is always busy and has become a place of meeting and gathering, which brings more of a sense to the community coming back to life and being restored.

In their Dairy Industry Strategic Plan released in May 2008, TechnoServe and USAID, identified four core reasons why the majority of dairy farms in Swaziland have been failing, while the large farms have proven to be a success.

1. Financing and access to capital
  - Reduced interest from financiers due to feed prices
2. Organization and management
  - Lack of accountability
3. Training
  - Costly for individuals
4. Infrastructure
  - Lack of irrigation/pastures
  - Transport by Kombi

If Bulembu Dairy was to be measured against success and evaluated under these core areas it has been an extreme success. The business was properly financed, installing capacity for further growth and leaving “buffer” room for unforeseeable issues. Proper training has been sourced and implemented resulting in a high milk per cow average (for national standards). Lastly, proper pastures have been cultivated for the business and distribution has been logistically maneuvered to ensure success.

In the beginning it was hard to get hold in the market for product, but once it became trusted, the market demand spiked. To this regard, it was highly under estimated how strong the demand for emasi was in the community. It was also under estimated how quickly Bulembu Dairy would move to stage 2 and 4 of development offering more products and expanding the market to Piggs Peak. However, both of these have proven not only to be good decisions, but are showing a great deal of opportunity.

Although little time has been given to expanding production through entrepreneur networks, this goal will prove to be difficult in coming years. Although it is anticipated to be met, it will be hard to ensure product quality from suppliers to match that of

Bulembu's. Training will become essential to local suppliers to ensure the quality remains constant.

The original Bulembu Dairy business plan listed 3 risks associated with the business including theft, increasing cost of goods and disease. To date none of these risks have been an obstacle to the project. The herd has been excellently managed protecting against disease. Security in Bulembu has proven successful as no incidence of theft has occurred. Lastly, the economies of scale in Bulembu have allowed for low feed costs increasing profit realization and success of the business – an issue that many small dairy farms experience.

Overall, the project has been considered a success by the Bulembu Board, by funders of the project and by the Bulembu community. It is providing an essential product to the community and orphan care program, creating jobs and by 2011 will be generating a constant stream of income.

## 4 - Goals / Aims Analysis and Comparison

### 1. Dairy Supply to the Bulembu Market

The first objective of Bulembu Dairy was to create a sustainable dairy production which would meet the supply of the community, especially the orphan care program. The measurable goal was:

- Reduce the amount of milk imported into Bulembu by 95% before 2010

This goal has been met as no more milk is imported into Bulembu. The objective of supplying the orphan care program with dairy products has also been successfully met, with milk now fulfilling an important role in the nutritional development program of the children.

However, sales to the rest of the Bulembu community have not met expectations based on a predicted per capita consumption of 0.25 L per day. As a result a decision was made to fast-track phase 2 of the project, and sell milk externally. This led to the opening of the Bulembu Store in Piggs Peak. Furthermore phase 4, expansion of product range, has also been fast-tracked. These decisions came at little cost to the Dairy project and have laid foundations for growth opportunities.

### 2. Accelerate Economic Growth

The original goal was to further economic development and growth within the community by providing milk products at lower prices, thus expanding the purchasing power of residents. Specifically the goal was measured by:

- Provide dairy products to the community for 35% less than current prices of imported goods.
- By providing less expensive milk to Bulembu Orphan Care, thus increasing purchasing power, increase the amount of milk per child by 35%.

Neither of these goals have been met to the targeted measure. Currently milk is being provided to both the community and orphan care program for 23% lower than what was being paid. This goal is not expected to be met at the 35% target, as a further reduction in prices would bring Bulembu Dairy to an unsustainable income level. However, Bulembu is pleased with the 23% savings for the orphan care program and recognizes the importance of increasing disposable income for the community.

### **3. Job creation**

The original goal of job creation for Bulembu Dairy called for 25 part time jobs, understanding that for every full time job 4 people in Swaziland are financially impacted positively. To date there are nine full time jobs and over 20 casual job opportunities which have been created. The number of jobs will continue to increase with increasing herd size and expansion of the milk processing activities. In this regard, the goal of job creation has not only been met, but surpassed.

### **4. Profitability**

When launched, Bulembu Dairy aimed to become sustainable and generating income by 2011. Current budget confirms that the dairy is on track to meet this goal and become an income generating enterprise by next year. The goal was furthered and out for the following measure:

- Generate nearly USD 450,000 annual income by 2020.

At this stage, it is too early to estimate whether or not this goal will be met. It will depend on further developments in Bulembu, which would require more flat, pasture land. This would allow for the expansion of the dairy and an increase in profits.

A second component of this goal was to empower and support local entrepreneurs to launch their own dairy farms or increase the production of already existing herd owners for distribution through Bulembu Logistics. Specifically the goal was to:

- Provide needed support for at least 25 entrepreneurs by 2014

To date Bulembu Dairy has not entered into this stage of development. No entrepreneurs have been cultivated for supply. However, over the following 4 years it is still anticipated that this goal will be met.

## **5– Final Financials**

Financially the business was capitalized and developed slightly over budget. The parlour renovations were over double the expected cost. However, all renovations were done with capacity creation at the forefront and have allowed for growth opportunities.

The only change in budget was the pasture establishment. The Dairy budget called for an irrigation system to be installed through the pasture. This cost was re-allocated to the infrastructure upgrade project in town. In order to bring sufficient water to the pasturing fields, water upgrades were required in the east side of the community.

The original budget also called for the capital purchase of vehicles. It was later determined to be a better decision of stewardship to lease the dairy tractor and allocate it as an operating cost. However, for the sake of this project report, this operating cost to date (May 31<sup>st</sup> 2010) has been included.

All Sahee Foundation donations have been allocated to the purchase of the ten point Waikato milking machine and to the second purchase of livestock.

	Budget	Jan 2009 – May 2010
Parlour Renovation	\$34,286	\$86,271
Dairy Equipment	\$75,714	\$59,208
Pasture Establishment	\$101,429	\$55,603
Start-up Feed	\$12,857	\$25,097
Vehicles and Implements**	\$41,429	\$22,713
Livestock	\$57,143	\$53,321
Miscellaneous	\$28,571	\$17,132
<b>Total:</b>	<b>\$351,429</b>	<b>\$319,345</b>