

A Presentation on Bamboo Bikes Limited (BBL), Chirapatre, Kumasi-Ghana



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Presentation Outline

- Introduction
- Operations of BBL
- Products of BBL
- Customers
- Market and Sales
- Future of BBL

Introduction

- The project was identified for implementation when the promoter participated in an “Investment Promotion for Kumasi Forum” organized by Millennium Cities Initiative (MCI) in September 2008 at the Earth Institute, Columbia University
- The project designed, built and tested an initial bamboo bike frame made from bamboo rather than commonly used steel

- BBL was incorporated in July 2009; this was done with the view to establishing a facility for the commercial production of bamboo bicycles in Kumasi, Ghana
- After receipt of certificates to commence business, samples of bamboo from Ghana were sent to Faculty of Engineering, Columbia University for its strength to be tested
- The result of the test was very favourable as the strength of the Ghanaian bamboo was found to be twice the bamboos from Asia and New Jersey, USA, that Bamboo Bikes Studio (BBS) in Brooklyn hitherto used for their bikes

- The result of the test of the strength of Ghana's bamboo assured the promoter that the local bamboo was suitable for the envisaged production of bamboo bikes
- Identifying the sources of bamboo supply within 60 km radius of Kumasi began. This was aimed at minimizing transportation costs
- Concurrently, the promoter secured a medium term credit facility in addition to his capital injection. Once financing was secured, a factory building was rented and refurbished. An order was placed for all foreign inputs like resin, hardener, roving etc., all tools and equipments from USA and components (pedals, tyres etc) were also ordered from China

- Delivery of the items were taken in the second week of January 2013
- Eleven (11) factory employees were recruited from KTI and Kumasi Polytechnic
- The Bamboo Bike Project (BBP) and the MCI at the Earth Institute, Columbia University, along with the Ghana-based BBL launched a two week long bamboo bike training program to begin production of bamboo bikes in Kumasi, Ghana
- The trained personnel were to be used as trainers for subsequent employees

- The training programme and test run were undertaken by a team led by Marty Odlin along with Justin Aguinaldo and Benjamin Masters, all of BBS in Brooklyn, USA
- The programme focused on several key components, including factory design and set up, bamboo selection and drying, bamboo bike frame building and bike assembly
- The project has also benefitted from significant facilitation from the Former Mayor of Kumasi, Hon. Samuel Sarpong. He introduced us to the District Assemblies where we identified potential sources of bamboo supply

Why we use bamboo for bicycles?

- The tensile strength of bamboo per square inch is greater than that of steel
- Bamboo is lighter but stronger than steel-framed bikes
- Bamboo dampens vibration faster
- Readily available
- Eco-friendly

Operations of BBL

- BBL has Two Units of Operations namely;
 - a)The Bicycle Unit
 - b)The Toothpick Unit

The toothpick unit was added on to make maximum use of bamboos which would have otherwise gone to waste

Production Process of BBL (Bicycle Unit)

Bamboo Plantation



Harvesting, Selection and Cutting



Treatment and Roughing



Foam Making and Fibreglass tape cutting



Spooling



Frame Building



Filing, smoothing and finishing



Bicycle Assembling

Production Process of BBL (Toothpick Unit)

Splitting



Slicing



Skewing



Cutting



Polishing



Shaving



Bleaching



Drying and Packaging

- Since the inception of BBL we have been able to produce about 1,450 bikes for the local market and about 350 frames for export. A total of 11,035 toothpick packages have also been produced
- Out of the total number of bikes produced, we have only had four defective joints on some of the frames
- We have been producing at a low capacity. With our current set-up we should be producing 520 frames per month for local frames and 240 frames per month for frames for export

- But at the moment, looking at our personnel we can only produce some 120 frames each for the local and foreign markets
- It is important to note here that once the market is developed we can scale up quickly, within a matter of three months

Products of BBL

Two Product types

a) Bamboo Bike and frames

- Bamboo bike with rack
- Bamboo bike without rack but front basket
- Bamboo bike male frame for export
- Bamboo bike female frame for export

- Pictures of frames



Bamboo bike with rack



Bamboo bike without rack
but with front basket





b) Toothpicks

- Plastic bottle type
- Cellophane type

- Pictures of Toothpick packages



Customers

Individuals, Companies and Organizations that have patronized our products

- **Foreign**

BlackStarBikes (The Netherlands), Dan Hogdall (Denmark), Bambooride, (Austria), etc.

- **Local**

Integrated Tamale Fruit Company (ITFC), Volta River Estates Ltd (VREL), Syto Ghana Ltd, Health Foundation for Ghana, Twifo-Attirmorkwa District Assemblies, Allan Parkay of Takoradi (for Egyam Orphanage Foundation Ghana), Cocoa Merchants Limited (Cocoa Buying Company), among several others

Future of BBL

- BBL desires to be a major player in the bamboo industry in Ghana and elsewhere. In view of this, there are plans to add other units (when bamboo bike factory is well established) like furniture, cultivation among several others to our existing units to enable BBL continue to create employment and generate more revenues to the communities where bamboos are harvested which is aimed at improving the lives of the people in these communities
- This is also in line with MCI's effort to facilitate development of cities through projects to eradicate extreme poverty and hunger. The first and most fundamental of the Millennium Development Goals (MDG) of the United Nations Organization.

Challenges

- Market Development

One of our major challenges have been a need for a rigorous marketing and development. In view of this BBL has contracted Growth Mosaic to facilitate that process

- Financial Restructuring

There is also the need for financial restructuring of company and also capital injection to boost the company's expansion effort

- Different Sizes of Frames

The End. Thank you.



Bamboo bike with rack



Bamboo bike without rack
but with front basket











