Uganda Investment Authority
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Compendium of Business Ideas for SMEs

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LIST OF ABBREVIATIONS

BUBU	Buy Ugandan Build Uganda
ICT	Information & Communication Technology
KG	Kilograms
MSME	Micro, Small and Medium Enterprises
NDP	National Development Plan
QTY	Quantity
SMEs	Small and Medium Enterprises
UIA	Uganda Investment Authority
USD	United States Dollars
YR	Year

1.0 INTRODUCTION

These Business Ideas have been professionally researched and prepared as investment promotion materials to be disseminated to potential investors for possible uptake. This Compendium selected existing business ideas from the 250 business ideas done in 2012 and came up with new business ideas in line with priority sectors under the National Development Plan (NDP). To develop the ideas, focus was put in context of MSMEs definition under the current MSME policy.

The business ideas presented below have been identified as most responsive to the priorities in the various sectors as outlined in the NDP II in general and in line with the priority sectors under the UIA Strategic Plan. They are presented as two to three page summaries to give an insight of the feasibility of their implementation. The scale of investment, production / output volumes, values and profitability are provided as key information in these ideas, believed to be the critical data necessary for making an investment business decision.

The business ideas are presented in the following sectors:

1. Agro-processing;
2. Tourism & Hospitality Sector;
3. Information and Communication Technology;
4. Mineral Beneficiation;
5. Manufacturing; and,
6. Services.

The 50 Business Ideas/Project Profiles selected within these six sectors are listed in the Table below;

Sector	Business Ideas	Existing	New
Agro-Processing (50%)	Honey Processing	1	
	Simsim & Groundnuts Processing	1	
	Fish processing		1
	Cassava Processing		1
	Fruit drying & packaging		1
	Tomato Sauce making	1	
	Wine making from Banana		1
	Pumpkin processing		1
	Diary processing		1
	Millet Processing		1
	Poultry dressing and packaging		1
	Juice extraction and processing		1
	Mushroom processing	1	
	Honey wine processing		1
	Vegetable Cooking oil processing		1
	Banana processing-snacks		1
	Animal feed processing	1	
	Soya Meal Processing	1	
	Rice Milling & Packaging	1	
	Silage and Hey production		1
	Natural Liquid Fertilizers	1	
	Making Chili Sauce	1	
	Banana Flour processing		1
	Potato crisps		1
Tourism & Hospitality Sector	Establishment and Management of a camp site		1
	Establishment and Management of a Tourist lodge		1
	Travel agency business		1
	Recreation Centre		1

Sector	Business Ideas	Existing	New
ICT	Web hosting		1
	Online shop		1
	Car tracking services		1
Mineral Beneficiation	Briquettes making	1	
	Making Clay tiles		1
	Making decorative ceramic products		1
	Coble Stone cutting		1
Manufacturing	Soap making	1	
	Shoe making		1
	Bakery & Confectionery	1	
	Making Sanitary towels	1	
	Making Exercise books	1	
	Cement based brick making	1	
	Candle making	1	
	Making school bags	1	
	Making cornflakes	1	
	Paint making	1	
	Shoe polish making	1	
	Making Disposable Syringes	1	
Services	Cleaning services	1	
	Land scaping and designing	1	
	Fumigation services		1

2.0 BUSINESS IDEAS/PROJECT PROFILES

2.1 AGRO-PROCESSING

2.1.1 Honey Production & Processing

2.0 Introduction

Honey production and processing has become a professional occupation. This business model is developed on an assumption that it will be carried out in a rural area, since land can be easily and cheaply acquired. There are many food processing industries that are using honey as a **sweetening ingredient,** this industry includes candy making industry, jam making industry, bakery, dairy products, etc. **Bee farming** needs more attention and better handling, the moisture content in honey plays an important role, honey, with 20% more moisture is thinner in consistency, the increase in moisture content is called **gyroscopic** nature.

Some of the medicinal formulations use honey as a sweetening item. The cosmetics industry also uses it as a key ingredient in organic cosmetics and the product is also honey is consumed as healthy food. The wax that remains during honey harvesting is also excellent for Candle Making Business, used on surf board skin, as a body lotion and as an ingredient for making shoe polish and colonization of bees.

Honeybee farming also helps in **pollination** of flowers; therefore it contributes greatly to the agricultural sector.

3.0 Production Capacity, Technology and Process Description

a. **Production capacity**

This idea is aimed at producing an average of 420 litres of honey per year. A year has 2 seasons of honey production that is February/ March and July/August seasons. However, these two harvesting

periods can only be achieved in case of good floral plantations and good feeding of the bees. An average of 50-70 beehives give about 10 jerry cans (20 litres each) of honey in a season, which translates into 200 litres of honey seasonally and 70kg residual combs.

Year	Production apparatus		Item produced	Production unit	Projected Qty per Beehive			Projected Qty per annum		
	Description	Qty			Season 1	Season 2	Total	Season1	Season 2	Total
Year 1 & 2	Bee hives	70	Honey	Litres	3	3	6	210	210	420
			Wax	Kgs	1	1	2	70	70	140
Year 3,4&5	Production apparatus		Item produced	Production unit	Projected Qty per Beehive			Projected Qty per annum		
	Description	Qty			Season 1	Season 2	Total	Season1	Season 2	Total
	Bee hives	100	Honey	Litres	3	3	6	300	300	600
			Wax	Kgs	1	1	2	100	100	200

b. Process Description

iii. Setting up an apiary.

The process starts with setting up an apiary, which involves identifying a good site for beekeeping, and then identifying the common flora for bees within the selected area. After site selection, the process of baiting beehives then starts and leads to the uniting, separation of colonies and swarm catching of the wild honeybee colonies. After successful colonization, the bees must be fed on sugar syrup and the hives checked at least once in a month. Honey is normally harvested at the end of a floral season.

iv. Harvesting of the Honey

Bee hives are opened after bees have been smoked out using a smoke pump, honey combs are pressed by hand. Honey is then separated from the wax using a pressing machine to produce better quality honey. Honey from a honeycomb is extracted, warmed, strained and bottled.

4. Capital Investment Requirement

Implementing this business idea requires the following processing equipment, raw materials and the packaging materials.

Centrifuge machine, Wooden beehives, Settling tank, Wax extractors, Honey press, Smoker pumps, Air tight buckets, Hive tools, Protective wears, Filtering sieves Land, floral plants and jerry cans.

Table 2 - Capital Investment Requirement

This table gives an inventory and capital costs of the main capital investment requirements for the 5 years and their estimated costs.

		Unit Cost	**Qty**	**Year 0**	**Yr 1**	**Yr 2**	**Yr 3**	**Yr 4**	**Yr 5**	**Total**
1	**Fixed Assets**			**8,650**	**0**	**0**	**4,270**	**0**	**0**	**12,920**
1.1	**Land**	**2,970**	**2**	**2,970**	**0**	**0**	**0**	**0**	**0**	**2,970**
1.1.1	Land Concession	2,700	1	2,700						2,700
1.1.2	site preparation and development	270	1	270						270
1.2	**Building works and development**			**1,080**	**0**	**0**	**540**	**0**	**0**	**1,620**
	Construction	540	2	1,080	0		540			1,620
1.3	**Facilities and Equipment**			**3,381**	**0**	**0**	**730**	**0**	**0**	**4,111**
	centrifuge machine	1,620	1	1,620						1,620
	smoker pumps	13.5	7	95						95
	wooden beehives	9.0	50	450						450
	hive tools	1.4	12	17						17
	protective wears(gloves, boots, bee suit)	5.4	7	38						38
	steam wax extractor	432.4	1	432						432
	settling tank	729.7	1	730			730			1,460

1.4	**Furniture, Equipment & furnishings**			**1,219**	**0**	**0**	**0**	**0**	**0**	**1,219**
	Flora nursery bed), wax, catchers, knives, sisal rolls, rat guard,angle bars, tree poles, feeder boxes, sugar syrup, entrance feeders, floating feeders, timber, machine work planning	1,081		1,081						1,081
	Air tight buckets	8.1	17	138						138
1.5	**Vehicles**	**3000**	**1**	**0**	**0**		**3,000**			**3,000**
2	**Preliminary Expenses**			**135**	**0**	**0**	**0**	**0**	**0**	**135**
3	**Working Capital**			**810**			**0**	**0**		**810**
TOTAL INVESTMENT				**9,594.9**	**0**	**0**	**4,270**	**0**	**0**	**13,865**

Table 3 - Daily Purchases

Table 3 shows the daily purchases/ raw materials used in production of each unit of Honey, and in this case, the only direct costs incurred are the labour costs.

Personnel and Labour costs	**Year1**	**Year 2**	**Year3**	**Year 4**	**Year 5**
	5	5	5	5	5
Unit Cost	4.9	4.9	4.9	4.9	4.9
Total Cost	1,168.0	1,168.0	1,168.0	1,168.0	1,168.0

Demand & Market Analysis

There is high demand for honey for home consumption, pharmaceutical use in making drugs and in most instances, it has replaced the sugar intake among people with health complications. Some beekeepers salvage the combs to extract wax for making candles, at times its mixed with maize flour to make ice-cream cones. Wax is also demanded by cobblers, makers of house hold textiles and garments.

Table 4-Project Operating Costs

The table below shows the total annual operational costs for conducting the business of honey production, processing and marketing over a period of 5 years.

Activity	**Year1**	**Year 2**	**Year3**	**Year 4**	**Year 5**	**Total**
Operating Expenses						
Audit fees	400	400	420	441	463	1,661
Transport	300	300	300	300	300	1,200
Stationery	50	50	50	50	50	200
Energy	100	100	100	100	100	400
Communication	114	114	114	114	114	456
Depreciation Expenses	512	459	411	753	677	2,812
Total Operating Expenses	**1,476**	**1,423**	**1,395**	**1,758**	**1,704**	**7,756**

Supply of Equipment and Raw materials

Equipment can be procured locally or imported from India by making online order through WWW.alibaba.com. However, more information regarding the appropriate equipment and protective gears can be sourced from Uganda Beekeepers Association.

Government Incentives

Government is supporting bee farmers through the National Agricultural Advisory Services programme funding activities and finding a market for products.

Table 5 - Project Profitability

This table shows the summary of the financial analysis, including the revenue collections from sale of Honey and Bee wax , costs incurred in the line of production, taxes and the annual return on the investment**.** On average, this investment profile has an estimate of 22% annual return on investment.

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue	**4,942**	**4,942**	**7,060**	**7,060**	**7,060**	**31,064**
Honey	3,990	3,990	5,700	5,700	5,700	25,080
Miscellaneous	952	952	1,360	1,360	1,360	5,984
Cost of Goods Sold	**1,168**	**1,168**	**1,168**	**1,168**	**1,168**	**5,840**
Gross Profit	**3,774**	**3,774**	**5,892**	**5,892**	**5,892**	**25,224**
Operating Expenses	**1,476**	**1,423**	**1,395**	**1,758**	**1,704**	**7,756**
Net Profit(Loss) before Interest and Tax	**2,298**	**2,351**	**4,497**	**4,134**	**4,188**	**17,468**
Net Profit/(Loss) before Tax	**2,298**	**2,351**	**4,497**	**4,134**	**4,188**	**17,468**
Taxation(30%)	**689**	**705**	**1,349**	**1,240**	**1,256**	**5,240**
Net Profit/(Loss) After Tax	**1,609**	**1,646**	**3,148**	**2,894**	**2,931**	**12,227**
Cummulative Net Profit(Loss) After Tax	**1,609**	**3,254**	**6,402**	**9,296**	**12,227**	**12,227**
Annual Return on Investment(After Tax)	**19%**	**21%**	**27%**	**21%**	**21%**	

2.1.2 Groundnuts Processing

1.0 Introduction about the Products, structure of their market and demand prospect

Groundnut paste is made from grounding fried groundnuts into a paste. The paste is used as a sauce stew to accompany food. It is many times mixed with other sauces or mixed directly into food. It makes soup heavy and taste nice. It may also be used or pasted on bread and be used instead of butter. This proposal will produce a safe product using stainless steel machinery unlike the present products produced using cast-iron equipment which end up laced with materials likely to cause cancer to those eating it. Processing peanut or groundnut is in the category of food which calls for one to check the gestation period, packaging, labelling and factory standards.

2.0 Production Capacity, Technology and Processes Description

This business idea is premised on production of 1,000 kgs of peanut butter in the first year which is 84kgs per month. The production capacity is estimated to grow by 10% per annum for the next 4 years, resulting into annual production of 1,880 kgs in the 5th year.

This kind of investment can cost about USD 4,257 in the first trading year. The Investment could be financed by the Owner's Equity. The profits from the business could later be ploughed back into the business in the subsequent years. This business idea has been developed with emphasis on small enterprises as defined by the MSME Policy document.

Production Process

The process begins with the cleaning and sorting of the sun- dried shelled groundnuts. This is done to get rid of any foreign bodies and nuts that have molds, thus contain aflatoxins. The grains are, thereafter roasted to get rid of excess moisture, thus increase the shelf-life of the product. The roasted nuts are then allowed to cool for 10 minutes and then the outer cover is removed through a process known as blanching. It is then put into the grinding machine for processing into a paste and packed in plastic containers .The process is quite simple and fast and a substantial amount can be processed in a day with modest equipment within a small space.

3.0 Minimum Scale of Investment, Capital Investment Requirements and Equipment

The minimum capital for the targeted scale of investment is estimated at $ 4,257 and is expected to yield an estimated annual revenue from sales to the amount of 8,919 over a five year period. Not a lot of equipment will be used due to the simple processing nature as machinery will only be used for roasting and grinding the groundnuts and hence the small size of the capital investment requirements. The capital expenditure is expected to be made over a 5 year period as illustrated in the table below;

Table 1: 5 - Year Investment Programme

Capital Investment Item		Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	**Fixed Assets**		**3,041**	**0**	**0**	**0**	**0**	**0**	**3,041**
1.1	**Vehicle**		**0**	**0**	**0**	**0**	**0**	**0**	**0**
1.2	**Furniture, Equipment & furnishings**		**3,041**	**0**	**0**	**0**	**0**	**0**	**3,041**
	Computers and electronic equipment		500	0	0		0	0	500
	Furniture, Office Equipment, Tools and Accessories		811						811
	Peanut Roaster	1	595						595
	Ground Nut Paste Machine	1	676						676
	Weighing Scale	1	54						54
	Storage Containers	10	405						405
2	**Preliminary Expenses**		**405**	**0**	**0**	**0**	**0**	**0**	**405**
3	**Working Capital**		**811**	**0**	**0**	**0**	**0**		**811**
Total Investment			**4,257**	**0**	**0**	**0**	**0**	**0**	**4,257**

4.0 Raw Material Requirements

The main raw materials for peanut processing are ground nuts and salt. These are readily available at most local shops around Uganda. An investor will need to have1, 000 kgs of gnuts to produce 900 grams of peanut butter. The details of the quantities are more described in table 2 below.

5.0 Market Analysis

Because the paste is a household item used by most families throughout the year, there is a ready market for the paste in grocery outlets all over the country. Groundnut paste in rich in proteins and vegetable oils which are healthy. A good marketing plan for selling the paste in schools could also be a good idea.

To maximize sales, the business owner should ensure standard packaging and prompt delivery services, high quality and well refined products and fair and best price offers, and discounts. Other marketing considerations are advertisement, discounts and promotions. Use flyers, posters, banners and signboards. Advertise in newspapers, food magazines including social media channels. Build a website to showcase your product. Drive targeted traffic through Facebook Ads.

6.0 Project Costs(Fixed Capital and Working Capital) and Revenues

Table 2: Production Costs

Product Cost Item		Yearly Cost	Year 1	Year 2	Year 3	Year 4	Year 5
1	Direct Costs/ Purchase costs		1,405.4	1,594.6	1,784	1,973	2,162
a	Ground nuts		945.9	1,135.1	1,324.3	1,513.5	1,702.7
b	Salt		54.1	54.1	54.1	54.1	54.1
c	Packaging Materials		270	270	270	270	270
d	Labels		135	135	135	135	135
2	Personel and Labour Costs		1,135	1,622	1,622	1,622	1,622
	Manager	1.0	649	973	973	973	973
	Production Manager	1.0	486	649	649	649	649
3	Overhead Costs-Utilities, Ofiice expenses		648.6	675.7	729.7	675.7	675.7
	Transport and fuel		135.1	135.1	135.1	135.1	135.1
	general admin costs		135.1	135.1	135.1	135.1	135.1
	Energy*		243.2	270.3	270.3	270.3	270.3
	Water*		135.1	135.1	189.2	135.1	135.1
	Internet		0.0	0.0	0.0	0.0	**0.0**

4	Depreciation		380.1	332.6	291.0	254.6	0.0
	Total Production Costs		3,569.3	4,224.5	4,426.1	4,524.9	4,459.5

8.0 Sources of Supply of Machinery and equipment and raw materials (Address listings)

In order to encourage the "BUBU", most of the raw materials be bought from St. Balikudembe Market, Nakasero Market, Kikuubo and any local shop. The fixed capital requirements could be locally fabricated at Musa Body Katwe or imported from www.alibaba.com.

9.0 Government facilities and incentives available

The government trades a liberalized policy on trade and commerce. It is in the interest of government for anybody to take up any venture that would add value to agricultural produce where this project falls. There are low interest financial facilities in different financial institutions that can be accessed by those that suit the prescribed investment lines or parameters.

10.0 Profitability for the 5 Year Period

With the total unit costs of production at US$ 2.8 per Kg, The selling price will be expected to be US$ 3 and this will an estimated net profit before tax of US$ 6,012 in the fifth year.

Table 3: Projected Profit and Loss Account

Activity	Baseline	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue from sale of peanut butter		2,703	3,243	3,784	4,324	4,865	18,919
Cost of Goods Sold		1,405	1,595	1,784	1,973	2,162	8,919
Gross Profit	0	1,297	1,649	2,000	2,351	2,703	10,000
Operating Expenses		648.6	675.7	729.7	675.7	675.7	3,405.4
Depreciation Expenses		380	333	291	255	0	1,258
Total Operating Expenses		1,029	**1,008**	**1,021**	**930**	**0**	**3,988**
Net Profit(Loss) before Interest and Tax		269	640	979	1,421	2,703	6,012
Development Loan Interest Expense		0	0	0	0	0	0
Net Profit/(Loss) before Tax		269	640	979	1,421	2,703	6,012
Taxation (30%)	30%	**81**	**192**	**294**	**426**	**811**	**1,804**
Net Profit/(Loss) After Tax		188	448	685	995	1,892	4,208
Cumulative Net Profit(Loss) After Tax		188	636	1,322	2,317	4,208	4,208
Annual Return on Investment(After Tax)	40%						

Assumptions

- The price is based on the current market price, cost of production and an average profit margin.
- Though estimated production in is kilograms, the products will be packed in tins of 100g, 500g and 1Kg.
- The dollar rate is assumed at 3700 UGX per1 USD

2.1.3 Fish Processing

1.0 Introduction

Fish processing is the transformation of edible sea life into different products such as fillets and nuggets to mention but a few. Uganda's main source of fish is lake Victoria, supported by other water bodies and artificial fish ponds and this has led to increased demand for fresh fish in other areas with no water bodies where fish can be obtained and few artificial ponds for example in Northern Eastern Uganda and hence the high demand for processed fish products. This Business Idea has been developed with respect to processing raw fresh water fish into fish fillets and nuggets.

2.0 Production Capacity, Technology And Process

The targeted scale of fish processing is expected to be 100,000 Kgs of fish fillet in the first year. This translates to 333kgs per day assuming production will be carried out for 300 days in a year. This processing capacity is expected to double by year 5 to 200,000 Kgs which will translate into 667 Kgs per day.

The fish processing steps are outlined below;

- The production process starts with obtaining of raw fresh fish which is preserved through refrigeration as it is transported to the processing facility.
- At the facility, the fins and head are removed, followed by cutting and cleaning of the belly to remove internal organs and also to inspect for any diseased fish which are disposed.
- Following removal of these organs, the skin of the fish is removed, the fish is washed and deboning is carried out.
- The fish is then cut into fish fillets and washed to remove any dangerous toxicants and packaged for the market.

3.0 Targeted Scale Of Investment Capital Investment Requirements And Equipment

The minimum capital for the targeted scale of investment is estimated at $ 250,000 and is expected to yield an estimated annual revenue from sales to the amount of 3,400,000 over a five year period. Not a lot of equipment will be used due to the simple processing nature as machinery will only be used for deboning and filleting with the rest of the processing being carried out manually and hence the small size of the capital investment requirements in comparison with the revenue which may be partly financed by through loan financing at an average interest rate of 10% per annum. The capital expenditure is expected to be made over a 5 year period as illustrated in the table below;

	Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL

1	**Fixed Assets**			100,370	0	0	**0**	**43,030**	**0**	**143,400**
1.1	Land	**20,000**	**2**	**20,000**	**0**	**0**	**0**	**0**	**0**	**20,000**
1.1.1	Land Concession	15,000	1	15,000						**15,000**
1.1.2	site preparation and development	5,000	1	5,000						**5,000**
1.2	Building works and development			**30,000**	**0**	**0**	**0**	**20,000**	**0**	**50,000**
1.2.1	Processing plant with cold storage s	30,000	1	30,000	0					**30,000**
1.2.2	Processing plant expansion	20,000	1					20,000		**20,000**
1.3	Processing plant facilities /equipment			41,000	0	0	0	16,000	0	**57,000**
	Generator (with Silencer)	25,000	1	25,000						**25,000**
	Fish deboner &filleting Machine	10,000	1	10,000				10,000		**20,000**
	Stainless steel tables	500	8	2,000				2,000		**4,000**
	Stainless steel storage shelves	1,000	8	4,000				4,000		**8,000**
1.4	Furniture,/Equipmen/ furnishings			**2,370**	**0**	**0**	**0**	**30**	**0**	**2,400**
	Fish scaling and skin removal equipment such as knives	1	120	90				30		**120**
	Office furniture, equipment, computers, office tools/accessories	1	2000	2,000						**2,000**
	Protective wear (goggles, gloves, etc)	14	20	280						**280**
1.5	Vehicles	2	7000	7,000	0		0	7,000		14,000
2	**Preliminary Expenses**			2,000	0	0	0	0	0	2,000
3	**Working Capital**			51,892			0	0		51,892
Total Investment				**154,262**	**0**	**0**	**0**	**43,030**	**0**	**197,292**

4.0 Raw Material Requirements

The major raw material for fish processing is the fish, preferably Tilapia and Nile perch which have the highest demand in Uganda as they are the most familiar types consumed by the local market. These can be obtained from fishermen on the shores of lake Victoria and from fish farmers at affordable prices. In the first year the fish required will amount to 100,000Kgs at a rate of $2.2 per kg. This requirement is expected to double by year 4 as illustrated in the table below;

Purchases		**Units**	**Year1**	**Year 2**	**Year3**	**Year 4**	**Year 5**	**Average**
Volumes (quantities	Fish	Kgs	100,000	120,000	150,000	200,000	200,000	154000
	Packaging material	Pcs	100,000	120,000	150,000	200,000	200,000	154000
Unit Costs	Fish	US$	2.2	2.2	2.2	2.2	2.2	2.2
	Packaging material	US$	0.3	0.3	0.3	0.3	0.3	0.3
Project Cost	Fish Fillet	US$	220000	264000	330000	440000	440000	338800
	Packaging material	US$	30000	36000	45000	60000	60000	46200
	Total	US$	250,000	300,000	375,000	500,000	500,000	385,000

5.0 Market Analysis

There is increased demand for processed fish products in Uganda especially in towns with restaurants and in modern homesteads where they do not have time to go through the whole fish preparation process. The fish products mainly consumed in Uganda are Nile Perch and Tilapia with most many people especially in restaurants preferring to have this fish boneless even at a higher cost and hence the need high demand for processed fish. Fish processing in Uganda is carried out by numerous industries such as Masese fish packers with most of them located around lake Victoria which mainly process for export and for the market located around lake Victoria and few of them supplies to other towns far away such as Mbale and Gulu where there is demand for such products as they have scarcity of fish and fish products in these areas. A kg Of Fish fillet goes for about US $ 6.5 and this created and opportunity as profitability can be achieved from production of fish fillet with a market price of US $ 6.

6.0 Project Operating Costs

Personnel, labour and overhead costs are estimated at $68,000 in the first year of operation and will increase due to the increase in production by year 5 to $116,000 as illustrated in the tables below. These

costs comprise of utilities, wages, stationary and depreciation to mention but a few.

Expenditures/Costs	Year1 US$	Year 2 US$	Year3 US$	Year 4 US$	Year 5 US$	Total
Salaries and Wages estimate	22,080	22,080	22,080	32,880	32,880	132,000
Office Overheads and Administration Costs	26,200	45,600	45,600	63,600	63,600	244,600
Depreciation Expenses	13,074	10,759	8,877	7,345	12,701	52,756
Total	61,354	78,439	76,557	103,825	109,181	429,356

7.0 Sources Of Raw Materials, Machinery And Equipment

- Shandong Xindaxin Food industrial equipment Co. Ltd –Shan dong China
- Musa Body Katwe, Kampala Uganda
- Masese landing site, Jinja
- Wairaka landing site, Jinja
- Kasenyi landing site, Wakiso
- Katosi landing site, Mukono

8.0 Government Incentives And Facilities Available

The Government is willing to support Ugandan Investment projects through the "Be Uganda Buy Uganda" initiative by providing financing, exposure and basic infrastructure so as to enable growth of such Investments in Uganda. Tax incentives such as reduced taxes for refrigerated trucks are also provided to make acquisition of equipment affordable.

9.0 5-Year Business Profitability Analysis

With the total unit costs of production at US$ 5 per Kg, The selling price will be expected to be US$ 6 and this will ensure that profitability is achieved within the first year with an estimated net profit before tax of US$ 80,000 in the first year and this will increase to US$ 180,000 by the fifth year

Projected Profit and Loss Account (in US$)

Activity	Baseline	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		**396,913**	**476,295**	**595,369**	**793,825**	**793,825**	**3,056,227**
1 Fish fillet		366,913	440,295	550,369	733,825	733,825	2,825,227
2 Fish bones, head and by products		30,000	36,000	45,000	60,000	60,000	231,000
Cost of Goods Sold		250,000	300,000	375,000	500,000	500,000	1,925,000
Gross Profit	0	146,913	176,295	220,369	293,825	293,825	1,131,227
Operating Expenses							
Personnel and Labour Costs	17	22,080	22,080	22,080	32,880	32,880	132,000
Office overheads and administration Expenses		32,310	51,602	51,514	69,870	69,746	194,336
Depreciation Expenses		13,074	10,759	8,877	7,345	12,701	52,756
Total Operating Expenses		67,464	84,442	82,471	110,095	115,327	379,092
Net Profit(Loss) before Tax		79,449	91,854	137,898	183,730	178,498	752,135

10.0 Assumptions

- Production is carried out for 300 days in a year
- The figures financials provided are in USD
- The going dollar rate is UGX 3,800/ $1

11.0 Reference List

- www.alibaba .com
- UIA Compendium
- https://assets.publishing.service.gov.uk

2.1.4 Cassava Processing

1.0 Introduction

1.1 Cassava Products, Structure Of Their Market And Demand Prospects

Cassava is a root vegetable. It is the third-largest source of food carbohydrates in the tropics, after rice and maize. Cassava is a major staple food in the developing world, providing a basic diet for over half a billion people. Cassava can be processed for Flour, Alcoholic beverages, Culinary, Bio-fuels and animal feeds. Cassava flour can also be used to make spaghetti and noodles. Cassava Flour is a type of gluten-free, wheat flour alternative that's made by grating and drying the fibrous cassava root. Given its gluten free nature, cassava flour is the "next generation in grain-free baking". It also has an easy-to-use texture and mild taste. The wastes (cassava chips) could be sold as animal feed.

1.2 Cassava Processing Investment Profile

This investment profile focuses on processing and marketing of first grade white cassava flour which can be used directly as a staple food or which can be mixed with other food ingredients to make variants of food products. The first grade white cassava flour should also be appropriate for industrial application purposes for example as an ingredient in the baking industry.

2.0 Production capacity, technology and processes description

Table 1: Projected Scale of Operations

Production capacity parameters	Year1	Year 2	Year3	Year 4	Year 5
Quantities to produce per month	20,500	20,833	25,000	37,500	50,000
Quantities to produce per year (kgs)	246,000	248,400	252,000	258,000	264,000
Cassava Chips (kgs)	360	384	400	410	430

The business idea underlying this investment profile is premised on production of 20,500 kgs of cassava flour per month which translates into 246,000 kgs for the first year**.** The production is estimated to grow into annual production capacity of 264,000 kgs of cassava by the 5th year. 61 tonnes of raw cassava will be

processed monthly to get 20,500 kgs of cassava flour per month and 30kgs of cassava chips.

3.0 Process Description

To process cassava into flour, the following steps are taken.

- Reception of cassava roots.
- Cassava washing and peeling: Before peeling, the raw cassava will be washed first to remove the sand, mud and other impurity. Peeling is essential work for making high quality cassava flour. After washing, the cassava will peeled by the cassava peeling machine.
- Wet milling: The peeled cassava will be transported into clean stainless steel cassava milling machine to obtain uniformly smooth mash. The cassava mash must be uniformly smooth without lumps. The smoothness of the mash determines the quality, yield and market value of the finished cassava flour.
- Dewatering: For commercial automatic production, we use the press filter to press the cassava mash for removing the water as much as possible.
- Cake breaking: After press, the cassava mash will be pressed to cassava cake. The cassava cake will be transport into milling machine for breaking into wet powder form.
- Drying and sieving: The special designed cassava flour drying machine will dry the wet cassava in few seconds. After drying, the moisture level of cassava flour can meet national regulatory standards. Then the cassava flour will be sieved to separate the big particle flour.
- Milling: For getting high quality cassava flour, the dry big particle cassava flour will be mill again by fine flour mill.
- Packaging: Pack desired quantities of cassava flour in polythene bags, seal or stitch as appropriate. This avoids absorption of moisture of the flour from the environment.

3.0 Minimum scale of investment, capital investment requirements and equipment

This business idea has been developed with emphasis on a medium enterprises model as defined by the MSME Policy document. This kind of investment can cost about USD 53,243 in the first trading year. The Investment could be financed by the Owner's Equity. The profits from the business could later be ploughed back into the business in the subsequent years.

Table 2: Investment Programme

		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
1	**Fixed Assets**			**47,568**	**0**	**0**	**7,946**	**7,568**	**0**
1.1	Land	**8,919**	**2**	**8,919**	**0**	**0**	**0**	**0**	**0**
1.1.1	Land Concession	8,108	1	8,108					
1.1.2	site preparation and development	811	1	811					
1.2	Building works and development			**2,703**	**0**	**0**	**0**	**2,703**	**0**
	Plant construction	2,703	1	2,703	0				
	Plant expansion	2,703	1					2,703	
1.3	Processing Equipment			**25,135**	**0**	**0**	**0**	**0**	**0**
	Generator	3,000	1	1,892					
	Wash and peel machine	6,000	1	5,405					
	Milling Machine	10,000	1	8,108					
	Drying Machine	6,000	1	4,865					
	Press Filter	4,000	1	2,703					
	Packaging machine	2,000	2	2,162				2,162	
1.4	Furniture, Equipment & furnishings			**4,865**	**0**	**0**	**2,000**	**0**	**0**
	production requirements (industrial weighing scales, fork lifts and shelves)	15,000	1	2,703			2,000		
	Office Furniture, Equipment, Tools and Accessories	3,000	1	1,892					
	protective wear (protective gloves, goggles, overalls, gum boots)	14	20	270					
1.5	Vehicles	6000	2	5,946	0		5,946		
2	Preliminary Expenses	2000	1	**811**	**0**	**0**	**500**	**0**	**0**
3	**Working Capital**			4,865			0	0	
TOTAL INVESTMENT				**53,243**	**0**	**0**	**8,446**	**7,568**	**0**

A Delivery Van would be bought in the first and third year to meet the deliveries demand.

4.0 Raw materials requirements

The main raw material for production of cassava flour is cassava. Cassava can readily be got in Uganda the quantities and quality are dependent on the client.

5.0 Market Analysis

Cassava flour is highly demanded by industrialists in China who use it to produce starch." Mr Bosco Lawino, the Chief Executive Officer Tropical Trade International Co Ltd, said judging from his trade partners, the demand for cassava flour is huge but he can only be able to supply 200 tonnes per month. "My advice to Ugandans is to get organized and supply more tonnes because the market is available." Through partnerships with other farmers and registration with the Uganda Export Promotions Board, the business owner would be able to sell the flour to China.

6.0 Project Production Costs

7.1		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
	Direct Costs/ Purchase costs	61,167	61,764.3	62,659	64,151	65,643
a	Cassava	59,837	60,422	61,297	62,757	**64,216**
c	Packaging Materials	1,330	1,343	1,362	1,395	**1,427**
7.2	Personel and Labour Costs	8,649	9,189	5,189	5,405	5,622
7.3	Overhead Costs-Utilities, Ofiice expenses	7,042	7,296	7,730	8,032	8,384
	Transport and fuel	1,892	2,027	2,162	2,243	**2,297**
	Fuel &Generator Maintenance	1,000	1,081	1,162	1,216	**1,297**
	Energy*	2,000	2,054	2,162	2,243	**2,297**
	Water*	2,000	2,054	2,162	2,243	**2,297**
	Internet	50	80	81	86	**95**
	Communication	100	100	100	100	100
7.4	Depreciation	7,541	5,968	4,728	3,750	2,978
	Total Production Costs	84,398.	84,217	80,306	81,339	82,626

7.0 Sources of Supply of Machinery and equipment and raw materials

The equipment can be bought from Alibaba Manufacturer's Directory. www.alibaba.com . Cassava on the other hand can be bought from Nakasero Market, St Balikudembe Market. The business owner could also partner with local farmers for better price and yet fresh cassava.

8.0 Government Facilities and Incentives Available

The government has put provisions for VAT exemptions for food products hence tax minimization.

9.0 Profitability Analysis

With the total unit costs of production at US$ 0.3 per Kg, The selling price will be expected to be US$ 0.4 and this will ensure that profitability is achieved within the first year with an estimated net profit before tax of US$ 14,031 in the first year and this will increase to US$ 31,392 by the fifth year.

Activity	**Baseline**	**Year1**	**Year 2**	**Year3**	**Year 4**	**Year 5**
Revenue from Sale of cassava flour and chips		98,429	99,391	100,832	103,233	105,635
Cost of Goods Sold		61,168	61,764	62,659	64,151	65,643
Gross Profit	0	37,262	37,627	38,173	39,082	39,992
Total Operating Expenses		23,231	22,453	17,647	17,188	8,599
Net Profit(Loss) before Interest and Tax		14,031	15,174	20,526	21,894	31,392
Development Loan Interest Expense		0	0	0	0.0	0
Net Profit/(Loss) before Tax		14,031	15,173.	20,526	21,894	31,392
Taxation (30%)	30%	4,209	4,552	6,158	6,568	9,418
Net Profit/(Loss) After Tax		9,821	10,621	14,368	15,325	21,975
Cumulative Net Profit(Loss) After Tax		9,821	20,443	34,811	50,137	72,111
Average Return on Investment(After Tax)	23%					

References

1. Seeds of Gold: How to grow and Add value to Cassava Edition
2. Daily Monitor Farming Magazines

2.1.5 Fruit Drying and Packaging (Pineapples)

1.0 Introduction

Fruits are perishable and cannot stay longer if left in their fresh form, as a way of preserving fresh fruits, Value addition processes can be done and one of them is fruit drying.

There are many fruits that can be dried and this proposal is focusing on drying Pineapples. Production of these fruits has been increasing in many districts as a result of the conducive weather conditions. Due to surplus production and less consumer demand there is a crash in prices during peak season and its scarcity during off peak-season resulting into price fluctuations causing losses to the Producers/ farmers. Moreover, fruits cannot be stored for a long time due to degradation of carotenoids. The ultimate solution to this problem is the dehydration, which is considered as the classical method of preservation.

2.0 Production Capacity, Technology and processing description

This investment Profile is focusing on the buying and processing of 8,000 Kgs of dried pineapples per year for the first year, and production is expected to increase to 9,000 kgs in the third year. As shown in the table below.

Year	Year1	Year 2	Year3	Year 4	Year 5
Quantities to produce based on projected demand (kgs)	8,000	8,000	9,000	9,000	9,000
Rate per Kilo	5.4	5.4	5.4	5.4	5.4
No. of business days per year	324	324	324	324	324

3.0 Technology and Production Process

3.1 Technology

This investment profile may not require sophisticated technology depending on the available resources. It only requires a solar dryers.

3.2 Production Process

After getting pumpkins from the garden, they are chopped using knives, and into smaller pieces with a slicer and then spread them on the dryer for some few days.

Selling a fresh fruits may require some time, but to save time, it is better if the fruits to be dried for easy storage and marketability.

1. Mature and ripe fruits are cut to remove the outer skin and slice thinly.
2. Its then placed under a solar drier to avoid direct heat from the sun which may cause nutrient loss

3. When the moisture content is lost, and the fruits are dry, they can be taken for packaging.
4. The dried product is then packed into branded packing materials and ready for sale.

4.0 Minimum Scale of Investment, Capital Investment Requirements and Equipment

The Minimum scale of Investment shall be in line with the SMEs definition as given by Uganda Investment Authority and this investment project is a Medium Enterprise that will require a minimum scale of investment of US$ 18,964 over the period of 5 years. At inception, US$ 16,937 is required including preliminary expenses and working capital and US$ 4,537 is required for the first six months of operation as indicated in the table below.

		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Fixed Assets			**11,500**	**-**	-	-	2,027	-	13,527
1 .1	Land	**5,000**	**2**	**5,000**	**-**	**-**	**-**	**-**	**-**	**5,000**
1.1.1	Land Concession	5,000	1	5,000						**5,000**
2	Building works and development			3,784	-	-	-	2,027	-	5,811
	Store construction	3,784	1	3,784	-					**3,784**
	Plant expansion	2,027	1					2,027		**2,027**
3	Production Equipment			811	-	-	-	-	-	811
	Solar driers	135	6	811						**811**
4	Furniture, Equipment & furnishings			1,905	-	-	-	-	-	1,905
	Containers and cutlery	1,800	1	1,800			-			**1,800**
	protective wears	15	7	105						**105**
5	Preliminary Expenses	900	1	**900**	-	-		-	-	900
5	Working Capital			**4,537**			**-**	**-**		**4,537**
Total Investment				**16,937**	**-**	**-**	**-**	**2,027**	**-**	**18,964**

Note: Depreciation for Equipment and facilities at 25%, Furniture and other equipment at 12.5%, motor vehicle at 10%, preliminary expenses at 10%. Depreciation is calculated using ta straight line method.

Capital Financing Structure

Financing Source	Structure	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Equity	1	16,937	-	-	-	2,027	-	18,964
Total Capital		**16,937**	**-**	**-**	**-**	**2,027**	**-**	**18,964**

The capital requirement of US$18,964 can be financed by Equity over the 5 years period. At inception, US$ 16,937 is required and in the fourth year, US$ 2,027 can be raised from sales as the project is running. However, where need be, a bank loan can be obtained from any of the commercial banks in the country.

5.0 Raw Materials Requirements

The major raw materials, are pineapples and can be obtained from farmers across the country but more so from Kayunga, Luwero , Bushenyi, Kabale, Ishaka Districts . In the first year, about 8,000 Kgs of Pineapples are expected to be used with this expected to increase to 9,000 kgs by year 3. The expenditure on raw materials is illustrated in the table below;

Purchases		Price per kg USD	Year1	Year 2	Year3	Year 4	Year 5	Total
			USD	USD	USD	USD	USD	
Pineapples	Total Amount spent	3.4	27,200	27,200	30,600	30,600	30,600	146,200
	Unit cost $		3	3	3	3	3	
	Quantity purchased Kgs		8,000	8,000	9,000	9,000	9,000	
Packaging	Packaging materials	0.003	22	22	24	24	24	116
			0.003	0.003	0.003	0.003	0.003	
			8,000	8,000	9,000	9,000	9,000	
Total Direct Costs			**27,222**	**27,222**	**30,624**	**30,624**	**30,624**	**146,316**

6.0 Market Analysis

Uganda is already exporting dried fruits to the EU, USA and Japan. Basing on import enquiries registered by the Organic trade point at NOGAMU, import inquiries for organic dried fruits is estimated to be about five to ten times the current supply capacity. Based on the growing global market for organic products now

estimated to be above $67 billion, Uganda is bound to be the market leader in the supply of organic dried fruits, especially as demand in countries like Germany, Netherlands, UK, Austria, France ,Switzerland, continues of outweigh supply.

Locally, Organic Dried Pineapples business is being carried out by a few local industries, and farmers groups such as Kayunga Pineapple cluster providing organic dried fruits due to the existence of middle income individuals and hospitality service providers, schools, supermarkets and urbanized homes that may not have access to the fresh fruits.

7.0 Project Operational Costs

Purchases	Units	Year1	Year 2	Year3	Year 4	Year 5	Total
		USD	USD	USD	USD	USD	USD
Direct Costs		27,222	27,222	30,624	30,624	30,624	146,316
Salaries and Wages	10	6,162	6,162	6,162	6,162	6,162	30,811
Overheads		3,909	3,814	3,731	3,657	3,815	18,927
Total Operating Costs		**37,293**	**37,198**	**40,517**	**40,443**	**40,601**	**196,054**

Operating costs include raw material costs, Salaries and wages, transport and fuel, stationery, water, internet, communication, and depreciation.

8.0 5-Year Projected Revenue Streams

The revenue is estimated at **US$** 43,243 per year, and the project cost is estimated at US$ **37,293** inclusive of operating cost in the first year. The production capacity per day is 8,000 kgs per Year and is expected to increase in the subsequent years. The risk associated is marketing mix which can be managed by better management and control of the business.

Year	Year1	Year 2	Year3	Year 4	Year 5	Total
Pineapples	43,243	43,243	48,649	48,649	48,649	232,432
Estimated Total Revenue	**43,243**	**43,243**	**48,649**	**48,649**	**48,649**	

Unit Pricing and Cost Structure

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Total production costs	27,222	27,222	30,624	30,624	30,624	146,316
Total Kgs of dried fruit produced	8,000	8,000	9,000	9,000	9,000	-
Cost per Kilo of Dried Pineapples	3	3	3	3	3	

Unite pricing table

Dried pineapple shall be sold at US$ 5.4 per Kg and byproducts shall be sold US$ 1 per kg as indicated in the table below.

Menu Item		Unit	Unit Price	Gross Margin	Unit Cost
(a)	Pineapples	Kgs	5.4	37%	3
(b)	By products	Kgs	1		-

9.0 Sources of Supplies

Fruits can either be grown or purchased from the local markets around the country or be gotten from farmers.

Tools and Equipment are available on the local market like Agro-sokoni Limited, Musa Body fabrications, and many other suppliers.

10.0 Government Facilities and Incentives

- Government has put a tax waiver on agricultural inputs
- Interest of agriculture loans are lower as compared to other loans
- Government is promoting export substitution of all locally manufactured goods through reduced taxes
- "Buy Ugandan, Build Uganda" (BUBU) is aimed at promoting local industries

11.0 Projected Profit and Loss Account (in US$)

Activity	BL	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		43,243	43,243	48,649	48,649	48,649	232,432
Pineapples		43,243	43,243	48,649	48,649	48,649	232,432

Cost of Goods Sold		**27,222**	**27,222**	**30,624**	**30,624**	**30,624**	146,316
	-	16,022	16,022	18,024	18,024	18,024	86,116
Personnel and Labour Costs	10	6,162	6,162	6,162	6,162	6,162	30,811
Building repairs & maint'nce(4% of cost)		232	232	232	232	232	1,162
Furnishing Repairs & Maint.(10% of cost)	0	191	191	191	191	191	953
Audit fees		405	405	405	405	405	1,622
Transport and fuel		1,892	1,892	1,892	1,892	1,892	7,568
Stationery		405	405	405	405	405	1,622
Water		405	405	405	405	405	1,622
Communication		378	378	378	378	378	1,514
Depreciation Expenses		828	733	650	576	734	3,521
Total Operating Expenses		**10,900**	**10,805**	**10,721**	**10,647**	**10,806**	**53,879**
Net Profit(Loss) before Interest and Tax		5,122	5,217	7,303	7,377	7,218	32,237
Net Profit/(Loss) before Tax		5,122	5,217	7,303	7,377	7,218	32,237
Taxation (30%)	0	1,537	1,565	2,191	2,213	2,166	9,671
Net Profit/(Loss) After Tax		3,585	3,652	5,112	5,164	5,053	22,566
Cumulative Net Profit(Loss) After Tax		3,585	7,237	12,349	17,513	22,566	22,566
Average return on investment				**33%**			

Assumptions:

- Assuming the Dollar rate is USD 3,700
- Assuming a month has 24 days (excluding weekends) and a year has 324 days.
- Depreciation is calculated on the Reducing balance method

2.1.6 Tomato Sauce Making

1.0 Introduction

Tomato sauce manufacturing can be a profitable business venture if started with proper planning and preparation. It is one of the most widely used taste enhancers all over the world. We can't imagine several Chinese and continental dishes without adding tomato sauce. Homemade tomato sauce also has a great demand in the market due to its quality and unmatched taste. If you can come up with your own recipes of tomato sauce and commercialize its production and marketing.

Tomato sauce has got many uses, some of which are listed below,

- It is used in the household along with snacks.
- Used in restaurants for coloring and seasoning of foods.
- Used by railways and other transportation modes that provides food services.
- Street food venders.

Tomato sauce can also be made in the home and without using of preservatives. These products are usually of high quality due to its greater taste and can be sold in the market even at a higher rate.But, due to the less use of chemicals and preservatives, the homemade sauces don't come with longer expiry dates. You can choose quality or quantity in your **tomato sauce manufacturing strategy.** The cost of manufacturing quality products tends to be high so they must be sold at a premium in the market. Mass production can achieve lower unit cost production and potential for lower unit market prices.

2.0 Production Capacity, Technology and process description

a) Production capacity

This idea is aimed at producing a total of 3000 tins (250g & 500g) per month which translates into 36000 tins per year, and on average a daily production of 120 tins.

Year	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Production Capacity(250g)	18,000	18,000	24,000	24,000	24,000
Production capacity (500g)	18,000	18,000	24,000	24,000	24,000
Rate per Tin (250g)	0.7	0.7	0.7	0.7	0.7
Rate Per Tin (500g)	1.4	1.4	1.4	1.4	1.4
No. of business days per year	300	300	300	300	300

b) Process description

The whole process of **tomato sauce manufacturing** includes different steps like washing, crushing, concentrating, homogenizing, flavoring and packaging. As per the set Indian standards for the **tomato sauce manufacturing,** there should be the use of good quality ripe tomatoes with over 25 % of soluble weights. The juice must be concentrated and later boiled to attain 30c-35c, after which vinegar is added as a preservative. The tomato sauce can now be packaged and distributed to the consumers.

3.0 Capital Investment Requirement

Implementing this business idea requires the following manufacturing equipment, raw materials and the packaging materials.

a) Manufacturing Equipment.

These include the following,

Pulping Machine, Steam Jacketed Kettle costs, Exhaust and Process tank with motor, Semi-automatic bottle washing machine, Hand operated filling machine, Spice grinding machine, Crown corking machine, Hand operated label gumming machine, Assorted aluminum or, stainless steel vessel, Testing equipment

Table 2-capital Investment Requirement

This table gives a clear layout of the main capital investment requirements for the 5 years and their estimated costs. The Idea has a total Capital Investment of about USD 32,137.

Capital Investment Item		Unit Cost	Qty	Yr 0	Yr1	Yr 2	Yr 3	Yr 4	Yr 5	Total
1	**Fixed Assets**			**32,002**	**0**	**0**	**5,054**	**0**	**0**	**36,716**
1.1	Land	1,700	2	1,700	0	**0**	**0**	**0**	**0**	**1,700**
1.1.1	Land Concession	1,200	1	1,200						**1,200**
1.1.2	site preparation and development	500	1	500						**500**
1.2	Building works/ development	1,000		**3,000**	**0**	**0**	**1,000**	**0**	**0**	**4,000**
	Buildings Construction	1,000	3	3,000	0		1,000			**4,000**
1.3	Facilities and Equipment	21,641		22,302	0	0	0	0	0	21,962
	Generator (with Silencer)	280	1	280						**280**
	pulping machine	8,000	1	8,000						**8,000**
	steam jacketed kettle	800	1	800						**800**
	filling machine	10,800	1	10,800						**10,800**
	stainless steel vessel	541	2	1,082			0			**1,082**
	spice grinding machine	100	1	100						
	Testing equipment	120	2	240						
	crown corking machine	1,000	1	1,000			0			**1,000**
1.4	Furniture, Equipment & furnishings	5,000		5,000	0	0	0	0	0	5,000
1.5	Vehicles	4054	**1**	0	**0**		4,054			4,054
2	Working capital	810		810						
3	Preliminary Expenses	135		135	0	0	0	0	0	135
Total Investment				**32,137**	**0**	**0**	**5,054**	**0**	**0**	**36,851**

b) Raw materials are

- Good quality tomatoes.
- Sugar
- Other spices as per individual choice
- Preservatives, colors and others.

Table 3- Daily purchases

Table 3 shows the daily purchases/ raw materials used in production of each unit of tomato sauce, and their estimated daily costs spread over a period of 5 years.

	Daily Cost	Year1	Year 2	Year3	Year 4	Year 5
Purchases	(Cost/Sales)	44,640	44,640	59,525	59,525	59,525

(a) Tomatoes (kgs)	70	21,000	21,000	28,000	28,000	28,000
(b) Salt(kgs)	6	1,800	1,800	2,400	2,400	2,400
(c) Chemicals(kgs)	20	6,000	6,000	8,002	8,002	8,002
(d) packing materials (tins)	7.8	2,340	2,340	3,120	3,120	3,120
(g)Vinegar (Ltrs)	30	9,000	9,000	12,002	12,002	12,002
(h) spices(kgs)	15	4,500	4,500	6,001	6,001	6,001

4.0 Demand and market analysis.

The increase in the number of teenagers and youngsters with higher spending power as well as an increase in working population (especially women), is fuelling the growth of Fast food industry globally in general, and in Uganda in particular. Tomato products are one of the most important ingredients in ready to eat or fast food products thus increasing its usage as an important tastemaker/enhancer and flavoring ingredients.

Since the tomato sauces are produced for different kind of uses, the demand is also very high in the market. These products also have a great demand in the market as most of the roadside vendors use this sauce in their food as they are cheap in price and suffice the need. Since there is already very high competition in the tomato sauce products, it is recommended that one focuses on product range which will be available in the market at lower prices. There are many reputed brands operating in the market of **tomato sauce manufacturing** and being among the multinational companies, it will be a tough to give them a fight in the market.

Table 4-Projected 5-year Business operational Costs

Activity	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Personnel and Office Administration Costs	6,224	8,424	10,424	13,224	13,224	51,520
Personnel and Labour Costs	4,400	5,600	5,600	8,400	8,400	**32,400**
Building repairs & maintenance(4% of cost)	160	160	160	160	160	**800**
Furnishing Repairs & Maintenance.(10% of cost)	500	500	500	500	500	**2,500**
Transport and fuel	1,000	2,000	4,000	4,000	4,000	**15,000**
Stationery	50	50	50	50	50	**250**
Communication	114	114	114	114	114	**570**
Utilities, Energy and Fuel	1330	1330	1330	1330	1330	6,650
Energy	500	500	500	500	500	2,500
Water	480	480	480	480	480	2,400
Fuel & Generator maintenance.	350	350	350	350	350	1,750
Audit fees	1,500	1,500	1,575	1,654	1,736	7,965
Depreciation Expenses	6,261	4,787	3,672	3,253	2,570	20,543
Total Operating Expenses	15,315	16,041	17,001	19,461	18,860	86,678
Activity	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total

The table above shows the total investment in fixed assets, working capital and the revenue collections over a period of 5 years.

5.0 Supply of Equipment and Raw materials

Equipment can be procured locally or imported from India by making online order through WWW.alibaba.com, while raw materials like tomatoes can be easily and cheaply purchased from the local markets around Kampala, forexample, St Balikudembe market, Kasubi market, Nakasero Market.

6.0 Government Incentives.

An agricultural fund can be easily accessed in the country and there are tax exemptions given to investors in Uganda.

7.0 Project Profitability

Table 5- summary of financial analysis

This table shows the summary of the financial analysis, including the revenue collections from sale of tomato sauce, costs incurred in their line of production, taxes and the annual return on the investment. This business profile is assumed to have an estimate of 52% annual Investment return.

Activity	Baseline	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Revenue		75,600	75,600	100,800	100,800	100,800	453,600
Tomato Sauce		75,600	75,600	100,800	100,800	100,800	453,600
Cost of Goods Sold		44,640	44,640	59,525	59,525	59,525	267,856
Gross Profit	0	30,960	30,960	41,275	41,275	41,275	185,744
Operating Expenses							
Personnel and Office Administration Costs		6,224	8,424	10,424	13,224	13,224	51,520
Utilities, Energy and Fuel		1330	1330	1330	1330	1330	6,650
Audit fees		1,500	1,500	1,575	1,654	1,736	7,965
Depreciation Expenses		6,261	4,787	3,672	3,253	2,570	20,543
Total Operating Expenses		**15,315**	**16,041**	**17,001**	**19,460**	**18,861**	**86,678**
Net Profit(Loss) before Interest and Tax		15,646	14,919	24,273	21,814	22,414	99,066
Net Profit/(Loss) before Tax		15,646	14,919	24,273	21,814	22,414	99,066
Taxation(30%)	30%	**4,694**	**4,476**	**7,282**	**6,544**	**6,724**	**29,720**
Net Profit/(Loss) After Tax		10,952	10,443	16,991	15,270	15,690	69,346
Cummulative Net Profit(Loss) After Tax		10,952	21,395	38,386	53,656	69,346	69,346

2.1.7 Wine Making from Bananas

1.0 Introduction

Banana wine is a liquor made from banana fruit. It can be made dry or sweet depending upon the recipe and can be blended with other wines to add body and flavors. Wine is now a fast picking drink used at parties and other occasions. During the peak season of bananas, many farmers incur losses because they are paid low prices yet there are little known technologies in Uganda to preserve raw fruit bananas ripe and add value to ripe bananas through processing into wine.

Many farmers do not have facilities for processing fresh bananas during peak seasons for bulk storage and processing into wine for long term consumption purposes. Banana Wine production and marketing can be undertaken even during off peak seasons throughout the year is a solution in this respect.

The main types of bananas traded are cooking banana (East African highland bananas and Plantains) and dessert bananas (Bogoya, Sukali Ndiizi) sold fresh, as well as transformed products such as beverages (juice, beer, wine, gin) and products made with banana fibre.

3.0 Production capacity, Technology and processing description

This investment profile focuses on the production of 40,000 liters of banana wine per year. Since wine takes time to ferment and mature, production can be divided into batches of 10,000 liters covering a period of 4 months per year as shown in the table below.

Year	Year1	Year 2	Year3	Year 4	Year 5
Quantities to produce based on projected demand (Ltrs)	40,000	40,000	50,000	50,000	50,000
Rate per litre	2.7	2.7	2.7	2.7	2.7

It doesn't take complicated technology to do this investment project. It only requires a Wine making machine (50L-3000L) and storage containers.

Production Process

1. Ripe bananas are peeled and put in plastic barrels filled with water.
2. The barrel contents are then pressed (mashed) and banana mash transferred to large metal pots and boiled for several hours, forming a base of juice and pulp.
3. The boiled banana mash is strained and sugar added to the left over juice and boiled again.
4. The boiled juice is left to cool, add in Tannin, Acid blend and pectic enzyme

5. Wine yeast is added to cooled, sweetened banana juice and placed in plastic fermentation tanks for 15 to 20 days, depending on product.
6. The fermented liquid is diluted with sterilized water, filtered, bottled and then packed for distribution.

4.0 Minimum Scale of Investment, Capital Investment requirements and Equipment

Table below shows some of the Capital requirements needed to start up this project. US $ 65,824 can be used for Capital Investment and to procure some Equipment at the start of the project and then in the third year, more can be procured as the project moves on.

Capital Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	**Fixed Assets**			**36,589**	**-**	**-**	**8,649**	**-**	**-**	**45,238**
1	Land	**8,108**	**2**	**8,108**	**-**	**-**	**-**	**-**	**-**	**8,108**
1.1.1	Land Concession	8,108	1	8,108						**8,108**
1	Building works and development			6,757	-	-	-	-	-	6,757
	Store construction	6,757	1	6,757	-					**6,757**
1	Production Equipment			10,811	-	-	-	-	-	10,811
	Wine making machine 3400L)	10,811	1	10,811						**10,811**
1	**Furniture, Equipment & furnishings**			2,265	-	-	-	-	-	2,265
	Computers/Electronic equipment	486	2	973	-	-		-	-	**973**
	Containers and cutlery	1,081	1	1,081			-			**1,081**
	Protective wears	18	12	211						**211**
2	Vehicles	8,649	2	8,649	-		8,649			17,297
3	Preliminary Expenses	900	1	**900**	**-**	**-**		-	-	900
4	Working Capital			12,015			-	-		12,015
Total Investment				**49,504**	**-**	**-**	**8,649**	**-**	**-**	58,152

Depreciation for land at a rate of 2%, Buildings at 25%, Equipment and facilities at 25%, Furniture and other equipment at 12.5%, motor vehicle at 10%, preliminary expenses at 10%. Depreciation is calculated using ta straight line method

5.0 Raw Materials requirements

The raw materials for this project are bananas, brown sugar, tannin, acid blend, pectic enzyme, yeast nutrients, and campden tablets

6.0 Market Analysis

The demand for wine has been increasing especially for parties and other activities like celebratory events. Apart from domestic demand, Banana wine enjoy a lot of demand from the export market. With the current market prospects in the Western countries, as well as in the region (Kenya, Tanzania, Rwanda, Burundi, DRC), locally made wine is on high demand, in supermarkets, shops, bars and hotels. With this market trend, this could yet turn out to be a very profitable project.

Cross-border trade has gone on for many decades but the volumes traded tend to be low. The export of dessert bananas regionally and internationally is mainly constrained by the poor quality of the fruit due to poor post-harvest handling, difficulties in controlling ripening and unattractive appearance on ripening giving banana wine a competitive edge against the unprocessed banana.

7.0 Project Operational Business Costs

Item	Price per kg/ package	Year1	Year 2	Year3	Year 4	Year 5	Total
		US$	US$	US$	US$	US$	US$
Direct Costs		72,089	72,089	79,590	79,590	79,590	382,949
Salaries and Wages estimate	12	10,378	10,378	10,378	10,378	10,378	51,892
Transport and fuel		4,324	4,324	4,324	4,324	4,324	**21,622**
Stationery		405	405	405	405	405	**2,027**
Energy		3,243	3,243	3,378	3,378	3,378	**16,622**

Water*	1,946	1,946	2,027	2,027	2,027	9,973
Communication	486	486	486	486	486	**2,432**
Depreciation	4,546	3,823	3,221	4,449	3,991	**20,030**
Total Operating costs	**97,417**	**96,694**	**103,809**	**105,037**	**104,579**	**507,547**

The project cost shall be US$97,417 in the first year. These costs shall increase with increased production in the subsequent years as shown in the table above

Unit Pricing and Cost structure

Unit cost is assumed to be at US$ 2 and in order to sell a unit item to be able to get a Gross Margin of 33%, the Unit price shall be US$ 2.7 as indicated in the tables below.

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Total production costs	72,089	72,089	79,590	79,590	79,590	382,949
Total liters of banana wine produced	40,000	40,000	50,000	50,000	50,000	-
Cost per liter of wine	2	2	2	2	2	

Unit Pricing table

Menu Item		Unit	Unit Price	Gross Margin	Unit Cost
(a)	Banana wine	liters	2.7	33%	2

Revenue Estimates in USD

The revenue is estimated at US$ 108,400 per year, and the project cost is estimated at US$ 97,417 inclusive of operating cost in the first year. The production capacity per day is 111 Liters of wine which translates into 40,000 litres per year.

Year	Year1	Year 2	Year3	Year 4	Year 5	Total
Banana wine	108,400	108,400	135,500	135,500	135,500	623,300
Estimated Total Revenue	108,400	108,400	135,500	135,500	**135,500**	

8.0 Sources of Supplies of Machinery, Equipment and Raw materials

- Bananas can be gotten from central or Western Uganda.
- Tools and Equipment are available on the local market and online purchases from www.alibaba.com

9.0 Government Facilities and Incentives available

- Government has put a tax waiver on agricultural inputs
- Interest of agriculture loans are lower as compared to other loans
- Government is also supporting Agro-processing through issuing grants under the Skills Development Facility

10.0 Profitability for 5 years period

Activity	BL	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		108,400	108,400	135,500	135,500	135,500	623,300
Banana wine		108,400	108,400	135,500	135,500	135,500	623,300
Cost of Goods Sold		**72,089**	**72,089**	**79,590**	**79,590**	**79,590**	382,949
	-	36,311	36,311	55,910	55,910	55,910	240,351
Personnel and Labour Costs	12	10,378	10,378	10,378	10,378	10,378	51,892
Building repairs & maint'nce(4% of cost)		270	270	270	270	270	1,351
Furnishing Repairs & Maint.(10% of cost)		226	226	226	226	226	1,132
Audit fees		541	541	541	541	541	2,703
Transport and fuel		4,324	4,324	4,324	4,324	4,324	21,622
Stationery		405	405	405	405	405	2,027
Energy		3,243	3,243	3,378	3,378	3,378	16,622
Water		1,946	1,946	2,027	2,027	2,027	9,973
Communication		486	486	486	486	486	2,432
Depreciation Expenses		4,546	3,823	3,221	4,449	3,991	20,030
Total Operating Expenses		**26,367**	**25,644**	**25,258**	**26,486**	**26,028**	**129,784**
Net Profit(Loss) before Interest and Tax		9,944	10,667	30,651	29,424	29,882	110,568
Development Loan Interest Expense		-	-	-	-	-	-
Net Profit/(Loss) before Tax		9,944	10,667	30,651	29,424	29,882	110,568

Taxation (30%)		2,983	3,200	9,195	8,827	8,965	33,170
Net Profit/(Loss) After Tax		6,961	7,467	21,456	20,597	20,917	77,397
Cummulative Net Profit(Loss) After Tax		6,961	14,427	35,883	56,480	77,397	77,397
Average return on investment			34%				

Assumptions:

- Assuming the Dollar rate is USD 3700
- Assuming a month has 30 days and a year has 365 days.

2.1.8 Pumpkin Flour Processing

2.0 Introduction

A pumpkin is a cultivar of a squash plant, most commonly of Cucurbita pepo that is round, with smooth, slightly ribbed skin, and most often deep yellow to orange in coloration. The thick shell contains the seeds and pulp. Pumpkins can be processed as a way of Value Addition in form of flour for easy storage. **Pumpkin** is a nutritious plant food that supports heart and eye health, boosts immunity, and supplements dietary fiber. It produces **pumpkin** juice, **pumpkin** wine and ready-to-eat roasted **pumpkin** seeds, as well as **pumpkin** powder from leaves and flowers which is used to make bread, cookies, biscuits, bagias, soup, seeds, peanut butter, and **pumpkin** ginger and cinnamon tea spices, among other **products**. Pumpkins are a traditional crop grown in many parts of central and western Uganda as a food crop. It is also for income generation.

Due to surplus production and less consumer demand there is a crash in prices during peak season and its scarcity during off peak-season resulting into higher market price fluctuations causing losses to the Producers/farmers. Moreover, pumpkins cannot be stored for a long time due to degradation of carotenoids. The ultimate solution to this problem is the dehydration of pumpkin, which is considered as the classical method of preservation.

3.0 Production Capacity, Technology and processing description

This investment Profile is focusing on the production of 36,000 kgs of Pumpkin Flour per year for the first two years, and production is expected to increase to 38,000 kgs in the third year of operation. As shown in the table below.

Year	Year1	Year 2	Year3	Year 4	Year 5
Pumpkin Flour in Kgs	36,000	36,000	38,000	38,000	38,000
Rate per Kilo	3.8	3.8	3.8	3.8	3.8

Technology

This investment profile may not require sophisticated technology depending on the available resources. It only requires a huller machine, mixer and solar dryers.

Production Process

After getting pumpkins from the garden, they are chopped using knives, and into smaller pieces with a

slicer and then spread them on the dryer for some few days. The dried pumpkins are then crushed/milled to make flour/ powder. This powder can be mixed with other flours such as Soya bean or Maize flour that is packed for porridge or bread making and is ready for marketing.

Selling a fresh pumpkin may require some time, but to save time, it's better if the pumpkins are processed into flour for easy storage and marketability.

1. Mature and ripe pumpkins are cut to remove the outer skin and slice thinly.
2. Its then placed under a solar drier to avoid direct heat from the sun which may cause nutrient loss
3. When the moisture content is lost, and the pumpkins are dry, they can be taken for crushing or milling.
4. The powder is then mixed in other powders like Soya bean and maize flour
5. The mixture is then packed into branded packing materials and ready for sale.

4.0 Minimum Scale of Investment, Capital Investment Requirements and Equipment

The Minimum scale of Investment shall be in line with the SMEs definition as given by Uganda Investment Authority and this investment project is a Medium Enterprise that will require a minimum scale of investment of US$ 58,823 at inception and in the third year, more assets can be procured. It would also require preliminary expenses approximately to US$8,000 for the project to operate.

Capital Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	Fixed Assets			**71,267**	**-**	**-**	**-**	**-**	**-**	**71,267**
1	Land	**60,811**	**1**	**60,811**	**-**	**-**	**-**	**-**	**-**	**60,811**
1.1.1	Land Concession	60,811	1	60,811						**60,811**
2	Building works and development			**5,676**	**-**	**-**	**-**	**-**	**-**	**5,676**
	Store construction	5,676	1	5,676	-					**5,676**
3	Production Equipment			**2,837**	**-**	**-**	**-**	**-**	**-**	**2,837**
	Huller machine	1,216	1	1,216				-		**1,216**
	Solar driers	135	12	1,621						**1,621**
4	Furniture, Equipment & furnishings			**1,942**	**-**	**-**	**-**	**-**	**-**	**1,942**
	Containers and cutlery	1,800	1	1,800			-			**1,800**
	Protective wears	20	7	142						**142**
5	Preliminary Expenses	900	1	**900**	**-**	**-**		**-**	**-**	900
6	Working Capital			**16,096**			**-**	**-**		**16,096**
Total Investment				**88,263**	**-**	**-**	**-**	**-**	-	88,263

Note: Depreciation for Equipment and facilities at 25%, Furniture and other equipment at 12.5%, motor vehicle at 10%, preliminary expenses at 10%. Depreciation is calculated using ta straight line method.

Capital Financing Structure

Financing Source	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Equity	88,263	-	-	-	-	-	88,263
Total Capital	88,263	-	-	-	-	-	88,263

The capital requirement of US$88,263 can be financed by Equity over the 5 years period. However, where need be, a bank loan can be obtained from any of the commercial banks in the country.

5.0 Raw Materials Requirements

The Raw materials needed for this project are the fresh pumpkins.

6.0 Market Analysis

The market for the pumpkin flour is available both nationally and regionally. Due to its nutritious contents, Pumpkins are on high demand both in raw or processed form in markets, supermarkets, shops, schools, health facilities and hotels.

The demand for Pumpkin products has been increasing because of its health benefits and nutrient value for both adults and children. Apart from domestic demand, Pumpkins enjoy a lot of demand from the export market. With the current market prospects in the Western countries, as well as in the region (Kenya, Tanzania, Rwanda, Burundi, DRC). Locally, Pumpkins are on high demand both in raw or

processed form in markets, supermarkets, shops, and hotels. With this market trend, this could yet turn out to be a very profitable project.

Substitute goods

Pumpkin flour is facing completion from other substitute products like Soya flour, Rice flour etc

7.0 Project Operational Costs

Activity		Year1	Year 2	Year3	Year 4	Year 5	Total
Direct Costs		96,577	96,577	101,943	101,943	101,943	498,983
Salaries and Wages estimate	10	8,303	8,303	8,303	8,303	8,303	41,514
Overhead costs		6,056	5,896	5,864	5,741	5,708	29,264
		110,936	**110,776**	**116,110**	**115,987**	**115,954**	**569,761**

Operating costs include raw material costs, Salaries and wages, transport and fuel, stationery, water, internet, communication, and depreciation.

8.0 5-Year Projected Revenue Streams

The revenue is estimated at US$ 136,440 per year, and the project cost is estimated at US$ 88,263 inclusive of operating cost in the first year. The production capacity per day is 36,000 kgs per Year and is expected to increase in the subsequent years.

Year	Year1	Year 2	Year3	Year 4	Year 5	Total
Pumpkin flour	136,440	136,440	144,020	144,020	144,020	704,940
Estimated Total Revenue	**136,440**	**136,440**	**144,020**	**144,020**	**144,020**	

9.0 Unit Pricing and Cost structure

Unit cost is US$ 2.7

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Total production costs	96,577	96,577	101,943	101,943	101,943	498,983
Total Kgs of pumpkin flour	36,000	36,000	38,000	38,000	38,000	-
Cost per Kilo	2.7	2.7	2.7	2.7	2.7	

Unit pricing table

Dried pineapple shall be sold at US$ 3.8 per Kg and byproducts shall be sold US$ 0.5 per kg as indicated in the table below

Products		Unit	Unit Price	Gross Margin	Unit Cost
(a)	Pumpkin flour	Kgs	3.8	29%	2.7
(b)	processing by products	Kgs	0.5		-

10.0 Sources of Supplies

Pumpkins can either be grown or purchased from the local markets around the country or be gotten from farmers.

Tools and Equipment are available on the local market like Agro-sokoni Limited, Musa Body fabrications, and many other suppliers.

11.0 Government Facilities and Incentives

Government has put a tax waiver on agricultural inputs

Interest of agriculture loans are lower as compared to other loans

Government is promoting export substitution of all locally manufactured goods through reduced taxes

12.0 Projected Profit and Loss Account (in US$)

Activity	BL	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		136,440	136,440	144,020	144,020	144,020	704,940
Pumpkin flour		136,440	136,440	144,020	144,020	144,020	704,940
Cost of Goods Sold		96,577	96,577	101,943	101,943	**101,943**	498,983
	-	39,863	39,863	42,077	42,077	42,077	205,957
Personnel and Labour Costs	10	8,303	8,303	8,303	8,303	8,303	41,514
Building repairs & maintenance(4% of cost)		227	227	227	227	227	1,135
Furnishing Repairs & Maintenance.(10% cost)	0	194	194	194	194	194	971
Audit fees		405	405	405	405	405	2,027
Transport and fuel		2,595	2,595	2,595	2,595	2,595	12,973
Stationery		405	405	405	405	405	2,027
Electricity		973	973	1,081	1,081	1,081	5,189
Water		486	486	486	486	486	2,432
Communication		270	270	270	270	270	1,351
Depreciation Expenses		1,326	1,166	1,026	903	870	5,291
Total Operating Expenses		**15,185**	**15,025**	**14,993**	**14,871**	**14,837**	**74,911**
Net Profit(Loss) before Interest and Tax		24,678	24,838	27,084	27,207	27,240	131,046
Development Loan Interest Expense		-	-	-	-	-	-
Net Profit/(Loss) before Tax		24,678	24,838	27,084	27,207	27,240	131,046
Taxation (30%)	0	7,403	7,451	8,125	8,162	8,172	39,314
Net Profit/(Loss) After Tax		17,274	17,386	18,959	19,045	19,068	91,732
Cumulative Net Profit(Loss) After Tax		17,274	34,661	53,620	72,664	91,732	91,732
Average return on investment				**26%**			

Assumptions:

- Assuming the Dollar rate is USD 3705
- Assuming a month has 25 days (excluding weekends) and a year has 300 days.
- Depreciation is calculated on the Reducing balance method

2.1.9 Diary Processing - Yoghurt Making

1.0 Introduction about the Products, structure of their market and demand prospects

Yoghurt is a food produced by bacterial fermentation of milk. The bacteria used to make yogurt are known as **yogurt cultures**. The fermentation of lactose by these bacteria produces lactic acid, which acts on milk protein to give yogurt its texture and characteristic tart flavor.

Cow's milk is commonly available worldwide and, as such, is the milk most commonly used to make yogurt. Yoghurt is very important to human health as it rich in calcium, protein, benefits digestive health, strengthens immune system, protects against osteoporosis, benefits heart health and promotes weight management.

2.0 Production capacity, technology and processes description

Table 1: Projected Scale of Operations

Year	Year1	Year 2	Year3	Year 4	Year 5
Production per week (litres)	500	1,000	1,500	2,000	2,500
Production per year (litres)	24,000	48,000	72,000	96,000	120,000

This business idea is premised on production of 500 litres of yoghurt per month which translates into 24,000 litres for the first year. The production is estimated to grow by 10% per annum for the next 4 years, resulting into annual production of 120,000 litres of yoghurt by year 5.

3.0 Process Description

1. Adjust Milk Composition & Blend Ingredients

Milk composition may be adjusted to achieve the desired fat and solids content. Often dry milk is added to increase the amount of whey protein to provide a desirable texture. Ingredients such as stabilizers are added at this time.

2. Pasteurize Milk

The milk mixture is pasteurized at 185°F (85°C) for 30 minutes or at 203°F (95°C) for 10 minutes. A high heat treatment is used to denature the whey (serum) proteins. This allows the proteins to form a more stable gel, which prevents separation of the water during storage. The high heat treatment also further reduces the number of spoilage organisms in the milk to provide a better environment

for the starter cultures to grow. Yogurt is pasteurized before the starter cultures are added to ensure that the cultures remain active in the yogurt after fermentation to act as probiotics; if the yogurt is pasteurized after fermentation the cultures will be inactivated.

3. Homogenize

The blend is homogenized (2000 to 2500 psi) to mix all ingredients thoroughly and improve yogurt consistency.

4. Cool Milk

The milk is cooled to 108°F (42°C) to bring the yogurt to the ideal growth temperature for the starter culture.

5. Inoculate with Starter Cultures

The starter cultures are mixed into the cooled milk.

6. Hold

The milk is held at 108°F (42°C) until a pH 4.5 is reached. This allows the fermentation to progress to form a soft gel and the characteristic flavor of yogurt. This process can take several hours.

7. Cool

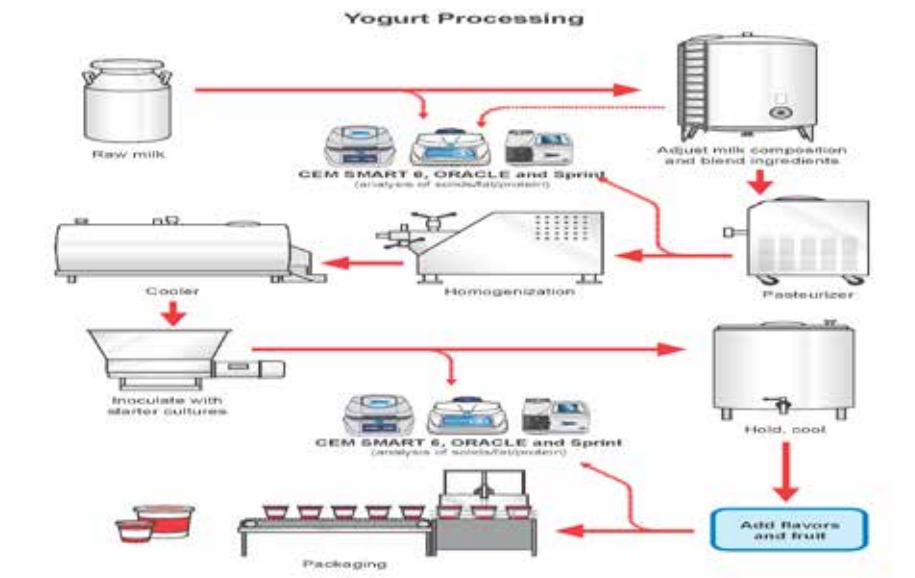
The yogurt is cooled to 7°C to stop the fermentation process.

8. Add Fruit & Flavors

Fruit and flavors are added at different steps depending on the type of yogurt. For set style yogurt the fruit is added in the bottom of the cup and then the inoculated yogurt is poured on top and the yogurt is fermented in the cup. Fruit is blended with the fermented, cooled yogurt prior to packaging.

9. Package

The yogurt is pumped from the fermentation vat and packaged as desire



3.0 Targeted Scale of Investment, Capital Investment Requirements and Equipment

This business idea has been developed with emphasis on medium enterprises as defined by the MSME Policy document. This kind of investment can cost about USD 31,351 in the first trading year. The Investment could be financed by the Owner's Equity. The profits from the business could later be ploughed back into the business in the subsequent years.

Table 2: Investment Programme

Capital Item		Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	**Fixed Assets**		25,135	0	0	6,757	0	0	**31,892**
1.1	Processing Equipment		16,216	0	0	0	0	0	
a	Generator	1	2,703						
b	1 set of a yoghurt processing machine	1	13,514						
1.2	Furniture, Equipment & furnishings		3,514	0	0	1,351	0	0	
a	production requirements (industrial weighing scales, fork lifts and shelves)	1	1,351			1,351			
b	Office furniture, equipment, tools and accessories	1	1,351						
c	protective wear (protective gloves, goggles, overalls, gum boots)	20	811						
1.3	Vehicles	2	5,405	0		5,405			
2	Preliminary Expenses	1	**811**	**0**	**0**		0	0	
3	**Working Capital**		5,405			0	0		
Total Investment			31,351	0	0	6,757	0	0	

4.0 Raw materials requirements

The main ingredient in yogurt is milk. The type of milk used depends on the type of yogurt – whole milk for full fat yogurt, low-fat milk for low-fat yogurt, and skim milk for nonfat yogurt. Other dairy ingredients are allowed in yogurt to adjust the composition, such as cream to adjust the fat content, and nonfat dry milk to adjust the solids content. Stabilizers may also be used in yogurt to improve the body and texture by increasing firmness, preventing separation of the whey (syneresis), and helping to keep the fruit uniformly mixed in the yogurt. Stabilizers used in yogurt are alginates (carageenan), gelatins, gums (locust bean, guar), pectins, and starch. Sweeteners, flavors and fruit preparations are used in yogurt to provide variety to the consumer.

5.0 Market Analysis

Ken Research announced market research report '' Uganda Diary Products Market Outlook to 2020-High demand for flavored milk, ice-cream and yoghurt in Uganda is expected to spur the Diary Market''.

6.0 Project Production Costs

7.1		Yearly Cost	Year 1	Year 2	Year 3	Year 4	Year 5
	Direct Costs/ Purchase costs		15,135	30,135	43,784	57,838	72,162
a	Milk		12,973	25,946	38,919	51,892	64,865
c	Packaging Materials		1,351	2,703	3,243	4,054	**4,865**
	Cream,stabilisers, flavours		811	1,486	1,622	1,892	**2,432**
7.2	Personnel and Labour Costs		5,546	5,595	6,676	6,676	6,676
	Supervisor	1	2,595	2,595	2,595	2,595	2,595
	Machine Operators	2	1,622	1,622	1,622	1,622	1,622
	Casual Laborers	1	486	486	486	486	486
	Drivers	2	0	0	1,081	1,081	1,081
	Guard	2	843	892	892	892	892
7.3	Overhead Costs-Utilities, Office expenses		7,838	10,270	10,811	11,351	11,595
	Rent		1,351	1,622	1,622	1,622	1,622
	Transport and fuel		1,351	2,432	2,432	2,432	**243**
	Generator Maintainance		1,351	1,351	1,351	1,351	**1,351**
	Energy*		2,162	2,703	2,973	3,243	**3,514**
	Water*		811	811	1,081	1,351	**3,514**
	Internet , communication, admin costs		811	1,351	1,351	1,351	**1,351**
7.4	Depreciation		5,034	3,911	3,054	2,399	1,895
	Total Production Costs		**33,552.7**	**49,911.3**	**64,324.8**	**78,263.4**	**92,327.3**

Table 4: Unit Pricing Structure

Product	Unit	Cost of production per ltr	Gross Margin	Unit Cost
Yogurt	Litres	0.6	50.0%	1

7.0 Sources of Supply of Machinery and equipment and raw materials

The equipment can be bought from Alibaba Manufacturer's Directory. www.alibaba.com . Milk on the other hand can be bought Uganda. The business owner would need to form partnerships with suppliers to deliver milk at their premises.

8.0 Government Facilities and Incentives Available

The Government has improved on the Transport and Communication Network and also removed tax levy on agricultural products in a bid to promote the Agro-processing industry in Uganda.

9. Profitability Analysis

Table 7: Projected Profit and Loss Account

Activity	Year1	Year 2	Year3	Year 4	Year 5
Revenue from Yoghurt sales	28,800	57,600	86,400	115,200	144,000
Cost of Goods Sold	15,135	30,135	43,784	57,838	72,162
Gross Profit	13,665	27,465	42,616	57,362	71,838
Total Operating Expenses	18,418	19,776	20,541	20,426	20,165
Net Profit(Loss) before Interest and Tax	(4,753)	7,689	22,075	36,937	51,673
Net Profit/(Loss) before Tax	(4,753)	7,689	22,075	36,937	51,673
Taxation (30%)	(1,426)	2,307	6,623	11,081	15,502
Net Profit/(Loss) After Tax	(3,327)	5,382	15,452	25,856	36,171
Cumulative Net Profit(Loss) After Tax	(3,327)	2,055	17,508	43,363	79,534
Average Annual Return on Investment(After Tax)					

References

Daily Monitor Farming Magazine Sunday Dec 10, 2017.

2.1.10 Millet Four Processing

1.0 Introduction

Millet processing is the transformation of millet grains into products such as millet flour which can then be used by the end user for other purposes such as making porridge. Millet flour has a variety of uses such as preparation of porridge and food (kalo) and hence it has high demand with an affordable and simple production process which makes it a very profitable venture.

2.0 Production Capacity And Process

Daily production capacity is expected to be 1000 Kgs of millet flour which will translate into 300,000 Kgs of millet flour annually with an assumption of 300 working days annually. This level of production is expected to have doubled by the fifth year with annual production reaching 600,000 Kgs of millet flour. Technology used will be capital intensive with simple machinery being used for hulling, milling and packaging.

- Millet processing begins from harvesting where the finger millet must be harvested at the right time and stage of maturity.
- The millet is then cleaned and unwanted materials like stones, soil particles, stalks, chaffs and grains of other crops are removed.
- The outer pericarp of the millet known as "glume" is then removed using a huller.
- The grains are then put into a miller for milling after which packaging is carried out and the millet flour is then ready for sale.

3.0 Scale Of Investment Capital Investment Requirements And Equipment

The capital requirement for this Scale of investment is estimated at US$ 183,000(including working capital of US$ 50,000) spread over the first 5 years and it is expected to yield a revenue stream of about US$1,750,000 in the same time period. Equipment to be used will be capital intensive so as to increase the level of production and efficiency because daily production is expected to be high with the highest rate being 2,000Kgs daily. The Capital expenditure is expected to be financed using 60% equity and 40% loan financing due to the large amount of capital required and this expenditure is expected to be done within a five year period as illustrated in the Investment Programme below;

5-Year Investment Programme

Capital Expenditure		Unit Cost	Qty	Yr0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	TOTAL
1	**Fixed Assets**			**98,280**	**0**	**0**	**16,000**	**14,000**	**0**	**128,280**
1.1	Land	**20,000**	**2**	**20,000**	**0**	**0**	**0**	**0**	**0**	**20,000**
1.1.1	Land Concession	15,000	1	15,000						15,000
1.1.2	Site preparation/development	5,000	1	5,000						5,000
1.2	Building works / development			20,000	0	0	0	10,000	0	30,000
	Plant construction	20,000	1	20,000	0					20,000
	Plant expansion	10,000	1					10,000		**10,000**
1.3	Processing Equipment			27,000	0	0	0	4,000	0	31,000
	Generator	3,000	1	3,000						3,000
	Finger millet huller	2,000	2	2,000				2,000		4,000
	Finger millet milling machine	20,000	1	20,000						20,000
	Packaging machine	2,000	2	2,000				2,000		**4,000**
1.4	Furniture,Equipment /furnishings			25,280	0	0	10,000	0	0	35,280
	Computers/electronic equipment				0	0		0	0	**0**
	Production equipment, tools and accessories	20,000	1	20,000			10,000			30,000
	Office Furniture, Computers Equipment, Tools/Accessories	5,000	1	5,000						5,000
	Protective wear	14	20	280						**280**
1.5	Vehicles	6000	2	6,000	0		6,000			**12,000**
2	Preliminary Expenses	3000	1	**3,000**	**0**	0	500	0	0	3,500
3	**Working Capital**			33,727			0	0		33,727
Total Investment				**135,007**	**0**	**0**	**16,500**	**14,000**	**0**	**165,507**

4.0 Raw Material Requirements

The major raw material, which is finger Millet can be obtained from Ugandan farmers in North and north eastern Uganda at affordable prices as a kilogram can go for as low as US$0.35 and packaging materials can be obtained from various suppliers in Uganda for example Riley packaging to mention but a few. In the first year, about 300,000 kgs of finger millet are expected to be used with this expected to double by year 5. The expenditure on raw materials is illustrated in the table below;

Purchases		Units	Year1	Year 2	Year3	Year 4	Year 5	Total
Millet	Volumes	Kgs	300,000	300,000	450,000	**600,000**	**600,000**	2,250,000
	Unit Price	US$	0.3	0.3	0.3	0.3	0.3	
	Cost	US$	90,000	90,000	135,000	180,000	180,000	675,000
Packaging materials	Volumes	Pieces	300,000	60,000	90,000	120,000	120,000	450,000
	Unit Price	US$	0.2	0.2	0.2	0.2	0.2	
	Cost	US$	60000	12000	18000	24000	24000	138000
Total Cost			**150,000**	**102,000**	**153,000**	**204,000**	**204,000**	**813,000**

5.0 Market Analysis

Millet being a very nutritious food with proteins, and as a product, can be used for a variety of purposes which is why it has high demand comprised of mothers and institutions that periodically accommodate the youth such as schools where it is consumed in large amounts and on a regular basis, this being a reason for its profitability.

Currently, there are few manufacturers of good quality well packaged millet flour on a large scale with majority being small scale processors with operating on small scale and whose products are contaminated by husks and not well processed and packaged. The millet processing business is dominated by a few Ugandan manufacturers such as Maganjo Grain millers and other foreign companies and these all sell their millet flour at a fairly high price

6.0 5-Year Projected Business Overheads and Administration Costs

Fixed costs will amount to an estimate of $62,000 in the first year of operation and will increase slightly due to the increase in production by year 5 to $86,000 as illustrated in the tables below. These costs comprise of utilities, wages, stationary and fuel, to mention but a few.

Expenditures/Costs	Year1 US$	Year 2 US$	Year3 US$	Year 4 US$	Year 5 US$	Total
Salaries and Wages estimate	23,400	23,400	23,400	32,400	32,400	135,000
Office Overheads and Administration Costs	24,036	23,934	25,011	33,289	41,420	147,690
Depreciation Expenses	12,510	10,168	8,322	8,710	9,328	49,037
Total	**59,946**	**57,502**	**56,733**	**74,399**	**83,148**	331,727

7.0 Sources Of Raw Materials, Machinery And Equipment

- As said mentioned earlier, finger millet can mainly be obtained from farmers and suppliers in the region, in areas in the North and North eastern regions of Uganda such as Soroti and or they can be sourced from neighboring regions like Kenya.
- Millet milling machine and millet huller-wenzhouKinding machinery Co, Ltd, Zheijang, China
- Stainless steel tables-Musa Body ,Katwe Kampala
- Office requirements- Footsteps furniture Ltd, Jinja Road Kampala
- Motor vehicles-Be Forward Uganda Ltd, Jinja Road Kampala
- Packaging machine-Zhangjiagang King Machine Co, Ltd, Jiangsu, China

8.0 Government Facilities And Incentives Available

The Government is willing to support Agro – processing industries by providing Capital/Inputs, Tax exemptions, Land, Basic infrastructure, Grants and long term Loans at relatively low interest rates.

9.0 Profitability For A 5 Year Period

The expected profits for the first five years are illustrated below, with the projected sales and costs. The selling price of millet flour is expected to be 0.8$ per Kg and this will lead to revenue of US$ 234,000 in year 1 which will grow to US$ 470,000 by year 5 :

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue	233,628	233,628	350,442	467,255	**467,255**	**1,752,208**
1 Millet flour	229,128	229,128	343,692	458,255	458,255	**1,718,458**
2 Millet husks and residue	4,500	4,500	6,750	9,000	9,000	**33,750**
Cost of Goods Sold	150,000	150,000	225,000	300,000	300,000	1,125,000
Gross Profit	83,628	83,628	125,442	167,255	167,255	627,208
Operating Expenses						0
Personnel and Labour Costs	23,400	23,400	23,400	32,400	32,400	**135,000**
Office Expenses and Administration Costs	24,036	23,934	25,011	33,289	41,420	**147,690**
Depreciation Expenses	12,510	10,168	8,322	8,710	9,328	**49,037**
Total Operating Expenses	**59,946**	**57,502**	**56,733**	**74,399**	**83,148**	**331,727**
Net Profit(Loss) before Interest and Tax	**23,682**	**26,126**	**68,708**	**92,857**	**84,107**	**295,481**
Development Loan Interest Expense	2,574	4,288	3,157	2,026	864	12,909
Net Profit/(Loss) before Tax	**21,108**	**21,838**	**65,551**	**90,830**	**83,243**	**282,572**
Taxation(30%)	**6,333**	**6,551**	**19,665**	**27,249**	**24,973**	**84,772**
Net Profit/(Loss) After Tax	14,776	15,287	45,886	63,581	**58,270**	**197,800**
Cummulative Net Profit(Loss) After Tax	**14,776**	**30,063**	**75,949**	**139,530**	**197,800**	**458,117**
Annual Return on Investment(After Tax)	17%	**19%**	**51%**	**34%**	**24%**	
Average Return on investment	29%					

10.0 Assumptions

- Production is carried out for 300 days in a year
- The figures financials provided are in USD
- The going dollar rate is UGX 3,800/ $1

11.0 Reference List

- UIA Investment Compendium
- www.alibaba.com
- www.wikipedia.com

2.1.11 Poultry Dressing and Packaging

1.0 Introduction

Poultry Proc Poultry processing is the transformation of birds, mainly chicken into different packaged products such as chicken fillet, chicken breasts and drumsticks to mention but a few. Due to the tedious and time consuming procedure of preparation of chicken right from slaughtering, many households and majority of hotels, restaurants are developing a preference for purchasing processed chicken as it is faster and easier to prepare with an element of consistency in terms of quality and quantity which makes this investment profile lucrative.

2.0 Business Idea Implementation Capacity And Process

The projected quantity to be produced is based on the projected demand assessed from the current market size for processed chicken products. This demand will be 120,000 kgs in year 1 and will be expected to double to 240,000 Kgs from year 4 onwards due to the increase size of market share which will be gained through intensive marketing and rolling out low priced quality products into the market.

The following logical steps shall be adopted in the poultry processing business undertaking.

- Processing starts with acquisition of birds which are then shackled and hung upside down in a dark room.
- The birds are then stunned to unconsciousness and later death.
- The birds are cut on the neck to cut the major blood vessels for the blood to exit the carcass.
- Birds are then placed in a scalder to loosen their feathers for plucking.
- After plucking, removal of feet, neck, oil glands and internal organs.
- The internal organs are inspected for signs of disease and if any is identified, the carcass is disposed off.
- The edible internal organs such as the gizzards are then cleaned up and packaged to sell separately.
- The carcass is then washed and chilled by immersing in cold water to prevent microbial growth.
- The chicken can then be cut up and packed as chicken thighs, breasts, and wingsor deboned and packaged as fillet ready for the market.

3.0 Scale Of Investment Capital Investment Requirements And Equipment

The capital requirements for the targeted scale of investment is estimated at USD 163,000 over 5 years and is expected to yield an estimated revenue stream of USD 6,710,000 over the 5-yearperiod. 70% of

the capital investment will be financed by the owners equity with 30% financed through loan financing. Equipment will be a capital based with the machinery doing most of the work such as plucking and deboning. Capital Investment will be carried out over a % year period as illustrated in the investment program below;

5-Year Investment Programme

Capital Investment Item		Unit Cost	Qty	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
1	**Fixed Assets**			76,080	0	0	**10,000**	**7,100**	**0**	**93,180**
1.1	Land	20,000	2	20,000	0	0	0	0	0	20,000
1.1.1	Land Concession	15,000	1	15,000						15,000
1.1.2	site preparation and development	5,000	1	5,000						**5,000**
1.2	Building works and development			25,000	0	0	10,000	0	0	35,000
1.2.1	Processing plant withcold storage units	25,000	1	25,000	0					25,000
1.2.2	Processing plant expansion	10,000	1				10,000			**10,000**
1.3	Processing plant facilities/ equipment			20,500	0	0	0	1,000	0	21,500
	Generator (with Silencer)	4,000	1	4,000						4,000
	Stunning cabinet	3,500	1	3,500						3,500
	Scalding tank	2,000	1	2,000						2,000
	Chicken plucker machine	1,000	2	1,000				1,000		2,000
	Chicken deboning machine	10,000	1	10,000						**10,000**
1.4	Furniture, Equipment & furnishings			2,580	0	0	0	100	0	2,680
	Processing equipment and tools (pneumatic shears and knives)	400	1	300				100		400
	Office furniture, equipment, computers, tolls and accessories	2,000	1	2,000						2,000
	Protective wear (protective goggles,gloves,gumboots,overall)	14	20	280						280
1.5	Vehicles	8000	1	8,000	0		0	6,000		**14,000**
2	**Preliminary Expenses**			2,000	0	0	0	0	0	2,000
3	**Working Capital**			113,783			0	0		113,783
Total Investment				**191,863**	**0**	**0**	**10,000**	**7,100**	**0**	**208,963**

4.0 Sources Of Supply Of Raw Materials

The major raw material for poultry processing is the chicken, preferably broilers which have soft ad sufficient meat. These can be obtained from poultry farmers such as Biyinzika poultry and other local farmers at affordable prices. In the first year, 120,000 kgs will be required and this will be expected to double by year 5. The table below illustrates the expenditure on direct raw materials

Purchases		Year1	Year 2	Year3	Year 4	Year 5	Total
		503,700	503,700	755,550	1,007,400	1,007,400	4,677,750
Chicken	Amount spent	480,000	480,000	720,000	960,000	960,000	3,600,000
	Quantity purchased	120,000	120,000	180,000	240,000	240,000	900,000
	Unit cost	4	4	4	4	4	
Packaging	Amount spent	23,700	23,700	35,550	47,400	47,400	177,750
	Quantity purchased	118,500.0	118,500.0	177,750.0	237,000.0	237,000.0	888,750
	Unit cost	0.2	0.2	0.2	0.2	0.2	

5.0 Market Analysis

With the developing hospitality sector, there is a growing need for chicken products such as fillets used to prepare dishes served in restaurants and hotels. The growing population is Uganda particularly the middles class in major towns in Uganda has also led to increased demand for processed chicken as it is easier to prepare due to its already processed nature.

Chicken processing is carried out by a few local industries such as Uga-Chick Uganda and large Supermarkets and these are not enough to provide processed chicken especially in other cities in Uganda such as Mbale and Western Uganda where demand exists due to the existence of middle income individuals and hospitality service providers.

6.0 Project Costs (Fixed Costs And Working Capital)

Fixed costs will amount to an estimate of $70,000 in the first year of operation and will increase slightly due to the increase in production by year 5 to $90,000 as illustrated in the tables below. These costs comprise of utilities, wages, stationary and fuel, to mention but a few.

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Personnel and Labour Costs	20,640	20,640	20,640	29,280	29,280	120,480
Office Expenses and Operational Costs	35,674	35,578	45,306	51,696	51,866	220,120
Depreciation Expenses	12,498	9,533	7,293	8,098	7,951	45,373
Total Operational Expenses	**68,811**	**65,752**	**73,239**	**89,074**	**89,097**	**385,972**

7.0 Sources Of Raw Materials, Machinery And Equipment

- Biyinziika Poultry International
- www.alibaba.com
- Musa body Ltd Katwe

8.0 Government Facilities And Incentives Available

The Government is willing to support Ugandan Investment projects through the "Be Uganda Buy Uganda" initiative by providing financing, exposure through marketing and basic infrastructure so as to enable growth of such Investments in Uganda. Tax incentives such as reduced taxes for refrigerated trucks are also provided to make acquisition of equipment affordable.

9.0 5-Year Profitability Analysis

With the average selling price for chicken products estimated at US$ 7, profits will be expected to amount to US$ 140,000 in the first year of production and will increase to US$330,000 by the fifth year of production as illustrated in the table below;

Activity		Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		716,018	716,018	1,074,027	1,432,037	1,432,037	5,370,137
1	Chicken fillet	183,794	183,794	275,691	367,587	367,587	1,378,453
2	Chicken breast	245,815	245,815	368,722	491,629	491,629	1,843,610
3	Drum sticks	245,815	245,815	368,722	491,629	491,629	1,843,610
4	Gizzards	10,891	10,891	16,337	21,783	21,783	81,686
5	Chicken feet	9,984	9,984	14,976	19,968	19,968	74,879
6	Chicken liver	8,320	8,320	12,480	16,640	16,640	62,399
7	Chicken bones	9,000	9,000	13,500	18,000	18,000	67,500
8	Chicken intestines	2,400	2,400	3,600	4,800	4,800	18,000
Cost of Goods Sold		503,700	503,700	755,550	1,007,400	1,007,400	3,777,750
Gross Profit		212,318	212,318	318,477	424,637	424,637	1,592,387
Operating Expenses							
Personnel and Labour Costs		20,640	20,640	20,640	29,280	29,280	120,480
Office Expenses and Operational Costs		36,074	35,978	45,706	51,696	51,626	170,700
Depreciation Expenses		12,498	9,533	7,293	8,098	7,951	45,373
Total Operational Expenses		69,211	66,152	73,639	89,074	88,857	336,552
Net Profit(Loss) before Interest and Tax		143,107	146,166	244,839	335,563	335,780	1,255,835
Development Loan Interest Expense		0	2,453	4,049	2,906	1,762	11,170
Net Profit/(Loss) before Tax		**143,107**	**143,713**	**240,790**	**332,657**	**334,018**	**1,244,665**

10.0 Assumptions

- Production is carried out for 300 days in a year
- The figures financials provided are in USD
- The going dollar rate is UGX 3,800/ $1

11.0 Reference List

- www.alibaba .com
- UIA Compendium

2.1.12 Juice Extraction and Processing

1.0 Introduction

Juice is a beverage made from extraction or pressing out of the natural liquid contained in fruits and vegetables. The main products from fruit juice extraction are Natural fruit juice and Concentrated Fruit juice. Other by products may include fertilizers to mention but a few. Fruit Juice extraction as a business will provide competitive and sustainable market for fruits; promote value addition and agro processing industrial growth in Uganda. Fruit juice extraction will also lead to income diversification and increased house hold incomes. The fruit juice extraction industry in Uganda is mainly comprised of imported fruit juice such as Ceres from South Africa, Del Monte and Afia from Kenya and a few local competitors like splash (Britannia), Kazire and Harris International (Oner Fruit Juice). With This small number of manufacturers, there exists a gap between demand and supply with the increase in the health conscious middle class in Uganda.

2.0 Production Capacity And Process

Daily production capacity is expected to be 300 litres of fruit juice which will translate into 150,000 litres of fruit juice annually with an assumption of 300 working days per year. This level of production is expected to have tripled by the fifth year with annual production reaching 450,000 litres of fruit juice. Technology used will be labour intensive with simple machinery such as pulpers being used.

Fruit juice extraction process begins from harvesting where the fruits must be harvested at the right time and stage of maturity. The fruits must also be sound and free from gross damage. The following logical steps shall be adopted in the juice extraction and packaging process.

- The fruits are received at the processing facility and transferred to a washing bay section for washing with chlorinated water.
- The fruits are peeled, seeds removed and cut into pieces to fit into the pulper.
- To make a clear juice, the extracted juice or pulp is filtered through a muslin cloth or a stainless steel filter.
- Sugar is added to the fruit juice as sugar syrup.
- The syrup is filtered through a muslin cloth prior to mixing to remove particles of dirt which are always present.
- Pasteurization is then carried out in a stainless steel saucepan over a gas flame.
- The products should be hot-filled into clean, sterilized bottles. A stainless steel bucket, drilled to accept a small outlet tap, is a very effective bottle filler.
- After filling, the bottles are capped and laid on their sides to cool prior to labeling.

3.0 Targeted Scale Of Investment Capital Investment Requirements And Equipment

The capital requirement for this Scale of investment is estimated at USD220,000 spread over the first 5 years and it is expected to yield a revenue stream of about US$2,300,000 in the same time period. Equipment to be used will be labor based so as to minimize utility costs and because daily production is expected to be low with the highest rate being 450,000 liters annually. The Capital expenditure is expected to be financed using 60% equity and 40% loan financing at a rate of 10% per annum due to the large amount of capital required and this expenditure is expected to be done within a five year period as illustrated in the Investment Programme below;

Capital Investment Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	**Fixed Assets**			**120,480**	0	0	16,000	35,300	0	171,780
1.1	Land	**15,000**	**2**	**15,000**	**0**	**0**	**0**	**0**	**0**	**15,000**
1.1.1	Land Concession	10,000	1	**10,000**						**10,000**
1.1.2	site preparation and development	5,000.	1	**5,000**						**5,000**
1.2	Building works and development			**50,000**	**0**	**0**	**0**	**30,000**	**0**	**80,000**
	Plant construction	50,000	1	**50,000**	0					50,000
	Plant expansion	30,000.0	1					30,000		**30,000**
1.3	Production Equipment			22,200	0	0	0	5,300	0	27,500
	Generator (with Silencer)	2,500	1	2,500						**2,500**
	Gas (Big cylinder)	100	10	700				300		**1,000**
	Juice pulper	4,000	1	4,000						**4,000**
	Water Pump	5,000	2	5,000				5,000		**10,000**
	Bottle filling, capping and labelling machine	10,000	1	10,000						**10,000**
1.4	Furniture, Equipment/ furnishings			27,280	0	0	10,000	0	0	37,280
	Computers & electronic equipment				0	0		0	0	**0**
	Production requirment (Gas plates, Stainless steel work tables, sauce pans, buckets, measurement equip.	22,000.0	1	22,000			10,000			**32,000**
	Office Furniture, Equipment, Toools and Accessories	5,000.0	1	5,000						**5,000**
	Industrial Protective wear	14.0	20	280						**280**
1.5	Vehicles	6,000.	2	6,000	0		6,000			12,000
2	Preliminary Expenses	3,000	1	**3,000**	**0**	**0**	**500**	**0**	**0**	**3,500**
3	Working Capital			**38,978**			0	0		38,978
Total Investment				**162,458**	**0**	**0**	**16,500**	**35,300**	**0**	**214,258**

4.0 Raw Materials Requirements

The major raw materials, which are fruits like mangoes, oranges and apples can be obtained from farmers and fruit suppliers in the region, in areas like Kanungu, Kabaale, Soroti and other areas in the Albertine region or they can be sourced from neighboring regions like Kenya. In the first year, about 225,000 Kgs of fruits are expected to be used with this expected to triple by year 5. The expenditure on raw materials is illustrated in the table below;

Direct Production/Purchase Costs

Purchases		Price per Unit Shs	Year1 Shs	Year 2 Shs	Year3 Shs	Year 4 Shs	Year 5	Total
Mangoes	Total Amount spent	1	46,875	70,313	70,313	93,750	140,625	421,875
	Unit cost $		1	1	1	1	1	
	Quantity purchased Kgs		93,750	140,625	140,625	187,500	281,250	
Oranges	Total Amount spent	1	33,750	50,625	50,625	67,500	101,250	303,750
	Unit cost $		1	1	1	1	1	
	Quantity purchased Kgs		225,000	337,500	337,500	450,000	675,000	
Pineapples	Total Amount spent	1	22,500	33,750	33,750	45,000	67,500	202,500
	Unit cost $		1	1	1	1	1	
	Quantity purchased Kgs		37,500	56,250	56,250	75,000	112,500	
Water melons	Total Amount spent	1	20,625	30,938	30,938	41,250	61,875	185,625
	Unit cost $		1	1	1	1	1	
	Quantity purchased Kgs		18,750	28,125	28,125	37,500	56,250	
Ascorbic acid (0.0004kg per l)	Total Amount spent	7	399	599	599	798	1,197	3,591
	Unit cost $		7	7	7	7	7	
	Quantity purchased Kgs		57	86	86	114	171	
Packaging	Total Amount spent	0.3	42,750	64,125	64,125	85,500	128,250	384,750
	Unit Cost $		0.3	0.3	0.3	0.3	0.3	
	Quantity purchased Kgs		142,500	213,750	213,750	285,000	427,500	
Total Direct Costs			**166,899**	**250,349**	**250,349**	**333,798**	**500,697**	**1,502,091**

5.0 Market Analysis

The Global Fruit and Vegetables Processing industry has experienced consistent demand growth over the last five years to 2015. Demand in the developing economies has also grown fast arising from increased industrial growth which has in turn translated into greater urbanization, higher per capita incomes and expansion in the size of the middle class. As a result, the Global Fruit and Vegetables Processing industry grew at an annualized rate of 1.3% over the five years to 2015. In 2015, industry revenue grew by 0.4% to $271.3 billion. Industry revenue is expected to expand at an annualized rate of 3.0% over the five years to 2020, reaching $315.0 billion. There is high demand for natural fruit juice in Uganda due to increase in health awareness and this is an opportunity for the fruit juice extraction business however the industry is mainly dominated by large companies with large resources and advanced technology which is a threat to businesses joining this industry. The juice produced by the business will be cheap at a cost of $1.35 compared to the price of other competitors whose juice is at an average price of $1.8 however the business may not be as popular as its competitors and this will be a weakness as customers may have brand loyalty

6.0 Project Costs(Fixed Costs And Working Capital)

The key costs shall be with respect to labour and business running overhead costs including utilities, office expenses and administration expenses. The projected cost estimates over the 5-year period is presented below.

Expenditures/Costs	Year1 US$	Year 2 US$	Year3 US$	Year 4 US$	Year 5 US$	Total
Salaries and Wages estimate	24,720	24,720	24,720	33,000	33,000	140,160
Office Overheads and Administration Costs	38,192	38,072	39,130	64,370	64,233	243,996
Depreciation Expenses	14,050	11,996	10,270	11,267	13,703	61,287
Total	**76,962**	**74,788**	**74,120**	**108,637**	**110,936**	**445,443**

7.0 Sources Of Raw Materials, Machinery And Equipment

- As mentioned earlier, raw materials like mangoes, oranges and apples can mainly be obtained from farmers and fruit suppliers in the region, in areas like Kanungu, Kabaale, Soroti and other areas in the Albertine region or they can be sourced from neighboring regions like Kenya.
- Fruit pulper machine-wenzhouKinding machinery Co, Ltd, Zheijang, China
- Stainless steel tables, sauce pans, funnels etc-Musa Body ,Katwe Kampala
- Office requirements- Footsteps furniture Ltd, Jinja Road Kampala

- Motor vehicles-Be Forward Uganda Ltd, Jinja Road Kampala
- Bottle filling and capping machine-Zhangjiagang King Machine Co, Ltd, Jiangsu, China

8.0 Government Facilities And Incentives Available

The Government is willing to support Agro – processing industries by providing Capital/Inputs, Tax exemptions, Land, Basic infrastructure, Grants and long term Loans at relatively low interest rates.

9.0 5-Year Period Profitability Analysis

With the average selling price of a litres of juice being US$ 1.8, The Revenue obtained from the sale of fruit juice will ensure that profitability is achieved within the first year of production with a profit of US$ 13,000 in year one which will reach US $ 157,000 by year 5 due to increased scale of production and economies of scale.The Expected Profits For The First Five Years Are Illustrated Below ,With The Projected Sales And Costs;

Activity		Year1 US$	Year 2 US$	Year3 US$	Year 4 US$	Year 5 US$	Total US$
Revenue		**256,909**	**385,363**	**385,363**	**514,097**	**770,727**	**2,312,180**
1	Mango Juice	53,180	79,770	79,770	106,360	159,540	478,620
2	Orange juice	53,180	79,770	79,770	106,434	159,540	478,620
3	pineapple juice	53,180	79,770	79,770	106,434	159,540	478,620
4	Watermelon juice	38,223	57,335	57,335	76,500	114,669	344,008
5	Cocktail juice	55,396	83,094	83,094	110,869	166,187	498,562
6	processing by products	3,750	5,625	5,625	7,500	11,250	33,750
Cost of Goods Sold		166,899	250,349	250,349	333,798	500,697	1,502,091
Gross Profit		90,010	135,015	135,015	180,299	270,030	810,089
Operating Expenses							
Personnel and Labor Costs		24,720	24,720	24,720	33,000	33,000	140,160
Office Overheads and Administration Costs		38,192	38,072	39,130	64,370	64,233	243,996
Depreciation Expenses		14,050	11,996	10,270	11,267	13,703	61,287
Total Operating Expenses		76,962	74,788	74,120	108,637	110,936	445,443
Net Profit(Loss) before Interest and Tax		13,048	60,227	60,895	71,662	159,094	364,646
Development Loan Interest Expense		0	3,099	4,633	3,670	2,226	13,628
Net Profit/(Loss) before Tax		13,048	57,128	56,262	67,992	156,867	351,017
Annual Return on Investment(Before Tax)		8.35%	41.04%	37.99%	22.12%	51.25%	

10.0 Assumptions

- Production is carried out for 300 days in a year
- From 2.5kgs of mangoes we can obtain 1ltr of mango juice
- From 1.5 kgs of oranges, we can obtain 1ltr of orange juice
- from 1kg of pineapple, we can obtain 1ltr of pineapple juice
- From 1kg of watermelon, we can obtain 2 ltr of water melon juice

2.1.13 Mushroom Processing

1.0 Introduction

Edible mushrooms are an abundant source of carbohydrates, proteins, and multiple antioxidants and phytonutrients. It can be ideally grown in hilly areas or in in artificially controlled sheds in plains. Fresh mushrooms can be readily sold in market or processed and dried. There are two main varieties of mushroom Button type or the oysters' variety. Fresh mushrooms have very limited life hence processing is recommended to enhance the shelf life. White button mushrooms are preferred over other types of mushrooms for canning.

2.0 The Business Model

It is premised on processing 100 Kg per day, which translates into 1,250 Kg per month. The revenue potential is estimated at US$ 3,672per month translating into US$ 44,058 per year. The total investment is estimated cost at USD 36,416 the project is also estimated to yield a net profit as in the table below for period of five years.

Net Profit/(Loss) before Tax		2,595	2,358	2,259	10,001	10,146	27,357
Taxation (30%)	30%	778	707	678	3,000	3,044	8,207
Net Profit/(Loss) After Tax		1,816	1,651	1,581	7,000	7,102	19,151

3.0 Production Capacity, Technology and processes Description

3.1 Targeted Production Capacity

	Year1	Year 2	Year3	Year 4	Year 5	Total
Targeted Annual Production Capacity (kgs)	15,000	24,000	30,000	33,000	33,000	135,000

3.2 Production

	Year1	Year 2	Year3	Year 4	Year 5	Total
Targeted Production Capacity (kgs)	15,000	24,000	30,000	33,000	33,000	135,000
Estimated Production Cost @ Kg (US$)	1.3	1.3	1.3	1.3	1.3	1
Targeted Production Cost (US$)	19,500	31,200	39,000	42,900	42,900	135,000
No. of business days per year	300	300	300	300	300	1,500

3.3 Processing

3.3.1 Fresh Canned Mushrooms

Initially mushrooms are washed in cold water then blanched in boiling water for 3-4 minutes. They are then dehydrated in drier and packed. It is advisable to pretreat mushroom in brine solution to prevent discoloration. Packing is very crucial as formation of moisture contaminates mushroom very quickly. The yield depends on many factors as moisture content in fresh mushroom, type of drier , process employed, moisture content require in the finished product etc. Average yield is 25%. Plain cans and brine of 2% salt and 0.2% citric acid are used for packing. The cans are vacuumed before sealing at 19oCfor 7-8 minutes, sealed and processed under pressure for 20-25 minutes

3.3.2 Dried Mushrooms

Drying mushrooms is a great preservation method for long-term storage

Before you dry mushrooms, clean them with a dry brush or paper towel to remove any dirt. Next, cut the mushrooms into pieces that are about 1/8 inch thick so they will dry faster. Then, place the mushrooms in a single layer on a baking sheet and put them in a 150° F oven for 1 hour.

To prepare your mushrooms for drying, it's important not to waterlog them first. Too much moisture and drying becomes tedious to impossible. If they're dirty, wipe them off with a damp cloth first rather than soaking them in water.

There are a few other things to keep in mind:

- Use the lowest setting needed to dry them. High heat can destroy some of the beneficial compounds in some mushrooms, so for drying mushrooms use lower settings rather than just roasting them.
- Mushrooms should be cracker dry, meaning they snap easily and break apart like a dry cracker. If they still seem moist or bend rather than snap, it's best to keep drying. Mushrooms that still contain some moisture may rot or develop mold.
- After drying mushrooms, store them in an airtight container in a cool, dark place. Don't leave them out in the open, in direct sunlight, or anywhere wet.

4.0 Scale of Investment, Capital Investment

		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	**Fixed Assets**			27,170	**0**	**0**	**7,000**	**0**	**0**	**34,170**
1.1	Land	**8,400**	**2**	**8,400**	**0**	**0**	**0**	**0**	**0**	**8,400**
1.1.1	Rent of Site & Ware House	6,000	1	6,000			0			6,000
1.1.2	Rent - Office	2,400	1	2,400						**2,400**
1.3	Processing Facilities & Equipment			2,270	0	0	0	0	0	2,270
	Mushroom Dehydrator machine	1,300	1	1,300						1,300
	Sealing machine	550	1	550						550
	small Milling machine	420	1	420						**420**
1.4	Office Furn., Equipment & Tools			9,500	0	0	0	0	0	9,500
	Office Furniture, Equipment, Tools and Accessories	8,000	1	9,500			0			**9,500**
1.5	Vehicles	7,000	2	7,000	0		7,000			**14,000**
2	**Preliminary Expenses**			3,000	0	0	0	0	0	3,000
3	**Working Capital**			10,578			0	0		10,578
	TOTAL INVESTMENT			**40,748**	**0**	**0**	**7,000**	**0**	**0**	**47,748**

5.0 Sources of Financing

	Financing Source	Structure	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Equity	0.7	24,091	24,091	0	0	0	0	24,091
2	Loan	0.3	10,325	10,325	0	0	0	0	10,325
	Total Capital		**34,416**	**34,416**	**0**	**0**	**0**	**0**	**34,416**

6.0 Raw Materials

- Mushrooms, brine solution, water
- The mushroom can be processed into various products to increase its consumption, providing the health and nutritional benefit to mankind.

7.0 Market Analysis

Mushroom growing is now a livelihood for many in Uganda. If you are to sell fresh mushrooms, a kilogram, may earn you about 0.95 US Dollars while a kilogram of dried mushrooms will bring you close to 3.1 and the powered costs 3.2 US dollars. The market is available both local and international

8.0 5-Year Revenue Projections

Year	Year1	Year 2	Year3	Year 4	Year 5	Total
Dried Mushrooms						
Estimated sales per day	**30**	**30**	**30**	**40**	**40**	170
Unit prices	3.1	3.1	3.1	3.1	3.1	3.1
No. of business days per year	300	300	300	300	300	1,500
Estimated Revenue	27,626	27,626	27,626	36,835	36,835	156,548
Powered mushrooms						
Estimated sales per day	20	20	20	25	25	110
Unit prices	3.2	3.2	3.2	3.2	3.2	3
No. of business days per year	300	300	300	300	300	1,500
Estimated Revenue	19,200	19,200	19,200	24,000	24,000	105,600
Total Revenue Projection		**46,826**	**46,826**	**60,835**	**60,835**	**215,322**

9.0 5-Year Business Overhead Cost Projections

Operating Expenses							
Personnel and Labour Costs	6	8,280	8,280	8,280	8,280	8,280	41,400
Furnishing Repairs & Maint.(10% of cost)	10.0%	300	300	300	300	300	1,500
Audit fees		600	600	600	600	600	3,000
Transport and fuel		1,000	1,000	1,000	1,000	1,000	5,000
Stationery		500	500	500	500	500	2,500
Energy		1,500	1,500	1,500	1,500	1,500	7,500
Water		600	600	600	600	600	3,000
Internet		500	500	500	500	500	2,500
Communication		220	220	220	220	220	1,100
Depreciation Expenses		1,824	1,565	1,345	1,157	997	6,888
Total Operating Expenses		**15,324**	**15,065**	**14,845**	**14,657**	**14,497**	**74,388**

10.0 5-Year Profitability Analysis Table

Activity	Baseline	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		40,275	40,275	40,275	52,100	52,100	225,023
Dry Mushrooms		21,075	21,075	21,075	28,100	28,100	119,423
Powered mushrooms		19,200	19,200	19,200	24,000	24,000	105,600
Miscellaneous Income (000'U$)		**0**	**0**	**0**	**0**	**0**	0
Cost of Goods Sold		19,216	19,216	19,216	24,981	24,981	107,612
Gross Profit	0	21,058	21,058	21,058	27,119	27,119	117,411
Total Operating Expenses		**15,324**	**15,065**	**14,845**	**14,657**	**14,497**	**74,388**
Net Profit(Loss) before Interest and Tax		**5,734**	**5,994**	**6,214**	**12,461**	**12,621**	**43,023**
Net Profit/(Loss) before Tax		5,734	5,994	6,214	12,461	12,621	43,023
Taxation(30%)	30%	**1,720**	**1,798**	**1,864**	**3,738**	**3,786**	**12,907**
Net Profit/(Loss) After Tax		4,014	4,195	4,350	8,723	8,835	30,117
Cummulative Net Profit(Loss) After Tax		4,014	8,210	12,559	21,282	30,117	76,182
Annual Return on Investment (After Tax)		413.0%	22.7%	25.4%	28.6%	29.0%	

11.0. Equipment and Machinery Suppliers

The source of equipment and machineries is both local and international market. Locally equipment and machinery can be got from Nkruma Road and Nassar Road in Kampala while internationally can be purchased from Nairobi, Chine and India.

12.0. Government Facilities and Incentives Available

The government of Uganda has reduced the tax rates on imports of Agro-processing equipment as a way of encouraging value addition on the locally produced agricultural products.

The following constitute some of the challenges involved in the growing and processing of mushroom;

- It is true that farmers who grow mushrooms are often not sure of the obvious availability of market for their produce.
- Lack of dryers. Many farmers have decided to sell fresh mushrooms since they do not have dryers for drying the mushrooms. They may still not have the money to invest in any solar machines for serving the purpose. Mushrooms are well known perishable crops yet farmers still do not own refrigerators since they cannot afford thus risking their products to rot.
- Lack of information to do with mushroom processing has also come out as a challenge.
- There is also limited knowledge regarding the nutritional traits of mushrooms among the farmers as well as the consumers. Information about mushroom growing may only be known to just a few groups of farmers involved in the growing process. Many are less informed and hence may not be able to obtain the improved seed varieties.
- The technologies at research institutions may also need to be fine tuned in order to fit the new farming systems.

10. References

1. Global Suppliers Online Ltd,https://www.globalsuppliersonline.com
2. Mushroom Appreciation https://www.mushroom-appreciation.com/drying-mushrooms.html
3. Mushroom Training and Resource Centre in Kabale Uganda.
4. Alibaba Chine

2.1.14 Honey Wine Processing

2.0 Introduction

Honey wine is a liquor made from honey and its byproducts after honey has been processed. It can be made dry or sweet depending upon the recipe and can be blended with other wines to add body and flavors. Wine is now a fast picking drink used at parties and other occasions. With the growing rate of the Apiary business in Uganda, there is need to come up with innovations that will add value to honey for purposes of marketing the product through various forms. Honey byproducts such as combs can now be used as a raw material for making wine which in the previous years have always been thrown away after extracting honey. Many farmers do not have facilities where they can store their honey products as they wait for the prices to rise. In this case, honey wine is a solution to that problem and it is profitable.

3.0 Production Capacity, Technology and Process Description

This investment profile focuses on the production of 30,000 liters of honey wine per year. Since wine takes time to ferment and mature (approx. 4 months), production can be divided into batches of 7,500 liters covering a period of 4 months per year. Production is expected to increase or even double in the third year to 35,000 Liters per year as shown in the table below.

Year	Year 1	Year 2	Year3	Year 4	Year 5
Quantities to produce based on projected demand (Litres)	30,000	30,000	35,000	35,000	35,000
Rate per litre	2.2	2.2	2.2	2.2	2.2

Technology

It does not require complex technology to implement this honey production business project. It only requires Storage containers and a few utensils.

Production Process is outlined in the logical steps presented below;

1. Get honey residues/combs after extracting honey
2. Mix with cold water
3. Leave the mixture to concentrate
4. Place the mixture on fire while stirring the content to dissolve.
5. Add in yeast nutrients (4 spoonful per jerry can)
6. Add wine yeast (4 spoonful per jerry can)
7. Add Campden powder (4 spoonful per jerry can)
8. Put the mixture in a jerry can and seal it with an air lock

9. Leave the mixture to settle
10. Add liquid Clear solution to the mixture to give the wine a clear color
11. Filter the clear wine from the jerry can into a clean container/bottle and store to mature into wine in a warm place.

4.0 Minimum Scale of Investment, Capital Investment Requirements and Equipment

Table below shows some of the Capital requirements needed to start up this project. US 76,054 can be used for Capital Investment and to procure some Equipment at the start of the project and then in the third year, more can be procured as the project capacity expands.

Capital Financing can be raised through savings (Equity) or through a bank loan which can be sourced in the first year and in the second year.

Capital Investment Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	Fixed Assets			**22,108**	**-**	**-**	**-**	**-**	**-**	**22,108**
1	Land	5,946	**2**	**5,946**	**-**	**-**	**-**	**-**	**-**	**5,946**
1.1.1	Land Concession	5,946	1	5,946						**5,946**
1	Building works and development			8,108	-	-	-	-	-	8,108
	Store construction	8,108	1	8,108	-					8,108
1	Furniture, Equipment & furnishings			1,297	-	-	-	-	-	1,297
	Containers, Mixing bowls, weighing scale, cups, spoons, jugs, cheese cloth and sieves	946	1	946			-			**946**
	Protective wears	18	20	351						**351**
2	Vehicles	6,757		6,757	-		-			6,757
2	Preliminary Expenses	1,027	1	**1,027**	**-**	**-**		**-**	**-**	**1,027**
3	Working Capital			9,059			-	-		9,059
Total Investment				**32,194**	**-**	**-**	**-**	**-**	**-**	**32,194**

Depreciation for land at a rate of 2%, Buildings at 25%, Equipment and facilities at 25%, Furniture and other equipment at 12.5%, motor vehicle at 10%, preliminary expenses at 10%. Depreciation is calculated using ta straight line method.

5.0 Raw Materials requirement

Purchases		Price per kg/ package Shs	Year1	Year 2	Year3	Year 4	Year 5	Total
			Shs	Shs	Shs	Shs		
Honey combs	Total Amount spent	8	12,960	12,960	14,580	14,580	14,580	69,660
	Unit cost $		8	8	8	8	8	
	Qty purchased Kgs		1,600	1,600	1,800	1,800	1,800	
Yeast nutrients	Total Amount spent	18	720	720	810	810	810	3,870
	Unit cost $		18	18	18	18	18	
	Qty purchased Kgs		40	40	45	45	45	
Wine yeast	Total Amount spent	18	720	720	810	810	810	3,870
	Unit cost $		18	18	18	18	18	
	Qty purchased gms		40	40	45	45	45	
Campden powder	Total Amount spent	18	720	720	810	810	810	3,870
	Unit cost $		18	18	18	18	18	
	Qty purchased kgs		40	40	45	45	45	
Packaging	Packaging/Branding	0.32	9,600	9,600	11,200	11,200	11,200	52,800
			0.32	0.32	0.32	0.32	0.32	
			30,000	30,000	35,000	35,000	35,000	
Total Direct Costs			**24,720**	**24,720**	**28,210**	**28,210**	**28,210**	**134,070**

6.0 Market Analysis

The demand for wine has been increasing especially for parties and other events. Apart from domestic demand, Honey wine enjoy a lot of demand from the export market. With the current market prospects in the in the region (Kenya, Tanzania, Rwanda, Burundi, DRC). Locally, wine is on high demand, in

supermarkets, shops, bars and hotels. With this market trend, this could yet turn out to be a very profitable project.

This honey wine is made from by products or residues i.e. honey combs after extracting honey. The export of honey regionally and internationally is mainly constrained by the poor quality of honey due to poor handling giving wine a competitive edge in the market.

7.0 Project Costs (Fixed Capital and Working Capital) and Revenues

Purchases	Price per kg/package	Year 1	Year 2	Year3	Year 4	Year 5	Total
		USD	USD	USD	USD	USD	USD
Direct Costs		24,720	24,720	28,210	28,210	28,210	134,070
Salaries and Wages estimate	20	26,432	26,432	26,432	26,432	26,432	132,162
Overheads		12,157	11,775	11,459	11,196	10,978	57,564
Total		**63,309**	**62,927**	**66,101**	**65,838**	**65,620**	**323,796**

Project cos include Direct costs, Salaries and wages, overheads. In the first year, it would cost approximately US$ 63,309 per year.

Unit Pricing and Cost Structure

Unit cost is assumed to be at US$ 2.4 and in order to sell a unit item to be able to get a Gross Margin of 25%, the Unit price shall be US$ 3.2

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Total production costs	51,152	51,152	54,642	54,642	54,642	203,313
Total liters of honey wine produced	30,000	30,000	35,000	35,000	35,000	-
Cost per litre of wine	2	2	2	2	2	

Unit pricing table

Menu Item		Unit	Unit Price	Gross Margin	Unit Cost
(a)	Honey wine	liters	2.4	29%	2

Revenue Estimates

The revenue is estimated at **US$ 72,000** per year, and the project cost is estimated at US$ **63,333** inclusive of operating cost in the first year. The production capacity is approx. 30,000 Liters of wine per year. The risk associated is marketing mix which can be managed by better management and control of the business.

Year	Year 1	Year 2	Year3	Year 4	Year 5	Total
Honey wine	72,000	72,000	84,000	84,000	84,000	396,000
Estimated Total Revenue	**72,000**	**72,000**	**84,000**	**84,000**	**84,000**	

8.0 Sources of Supplies of Machinery, Equipment and Raw materials

- Honey by products/residues or combs can be gotten from Bee Farmers around the country, more Western and Northern Uganda and some parts of Central Uganda.
- Tools and Equipment are available on the local market and online purchases from www.alibaba.com

9.0 Government Facilities and Incentives available

- Interest of agriculture loans are lower as compared to other loans
- Government is also supporting Agro-processing through issuing grants under the Skills Development Facility

10.0 Profitability for 3 years period

Activity	BL	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		72,000	72,000	84,000	84,000	84,000	396,000
Honey wine		72,000	72,000	84,000	84,000	84,000	396,000
Cost of Goods Sold		**24,720**	**24,720**	**28,210**	**28,210**	**28,210**	134,070
	-	47,280	47,280	55,790	55,790	55,790	261,930
Personnel and Labour Costs	20	26,432	26,432	26,432	26,432	26,432	132,162
Building repairs & maint'nce(4% of cost)		324	324	324	324	324	1,622
Furnishing Repairs & Maint.(10% of cost)	0	130	130	130	130	130	649
Audit fees		541	541	541	541	541	2,703

Transport and fuel		4,865	4,865	4,865	4,865	4,865	24,324
Stationery		595	595	595	595	595	2,973
Energy		1,351	1,351	1,351	1,351	1,351	6,757
Water		2,595	2,595	2,595	2,595	2,595	12,973
Fire wood		1,351	1,351	1,351	1,351	1,351	6,757
Communication		324	324	324	324	324	1,622
Depreciation Expenses		2,427	2,045	1,729	1,466	1,248	8,916
Total Operating Expenses		**40,935**	**40,553**	**40,237**	**39,975**	**39,756**	**201,456**
Net Profit(Loss) before Interest and Tax		6,345	6,727	15,553	15,815	16,034	60,474
Development Loan Interest Expense		-	-	-	-	-	-
Net Profit/(Loss) before Tax		6,345	6,727	15,553	15,815	16,034	60,474
Taxation (30%)	0.3	**1,903**	**2,018**	4,666	4,745	4,810	18,142
Net Profit/(Loss) After Tax		**4,441**	**4,709**	**10,887**	**11,071**	**11,224**	**42,332**

11.0 Assumptions:

- Assuming the Dollar rate is USD 3700
- Assuming a month has 25 days (excluding weekends) and a year has 300 days.

2.1.15 Vegetable Cooking Oil Processing

2.0 Introduction

Vegetable oil Processing has become a major industry throughout the World Economy as Food Producers continue to develop more uses for these Edible Oils. Oil can be derived from Soybeans, Cotton, Canola, Peanut, Sunflower etc. There is approximately 272 Million MT (metric tons) of Oilseeds produced annually in the world and of this production over half of the oilseeds grown are soybeans Within the last few years, the emphasis of the Oilseed Oil production has changed from stand-alone independent operations towards the integrated manufacturing and refining, producing a more complete range of value-added products from the raw seed to the dinner table. End products such as Salad Oil, Shortening, Mayonnaise, and Margarine are commonly produced from these complex processing plants.

3.0 Production Capacity

The project idea is designed with an aim of producing 43,680liters of vegetable cooking oil with estimated Capital Investment of $ **54,755** in the first Year of Project Operation, generating revenue of $70,849 in the first year of active operations.

4.0 Oil seed Extraction Process

The production process involves drying and cleaning soya bean seeds to remove foreign materials like stones, sand and sometimes it is washed to remove dirt. The outer coat is removed through a process called dehulling and then grinded using small motor powered hammer mills. The broken down components are passed through the expeller where they are heated to kill enzymes .The oil collects at the bottom of the expeller and then it is filtered and stored in the storage tank and packaged. The technology used is very simple as it involves drying, cleaning, crushing, heating and filtering.

5.0 Investment Scale and Capital Requirements for Equipment

The investment scale varies according to the intended objectives of the entrepreneur and the production capacity of the equipment used.

This table gives a clear layout of the main capital investment requirements for the project in the 1st five years of project operation and their estimated costs.

Items	Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Fixed Assets			24,323						24,323
Production Plant		1	24,323						24,323
Land	13,513	**1**	13,513						13,513
plant preparation and Installation	10,810	1	10,810						10,810
Equipment			25,775						25,775
Moisture Tester	300	2	600						600
Huller (Disintegrator)	2,000	1	2,000						2,000
Seed cleaner	3,700	1	3,700						3,700
Oil Expeller	3,000	1	3,000						3,000
Filter Press	3,700	1	3,700						3,700
Oil tank	500	2	1,000						1,000
Weighing Scale	100	5	500						500
Set of Steam Pipeline	500	1	500						500
Filling & Packing machine	9375	1	9,375						9,375
Generator	1400	1	1,400						1,400
Office furniture, fixture and fittings	1351		1,351						1,351
Delivery Van	5405	1	5,405						5,405
Preliminary Expenses	811		811						811
Working Capital			3,846						3,846
Total Capital Investment			**54,755**						**54,755**

6.0 Raw Materials requirements for 12 month Per Year

Cooking oil consists of edible vegetable oils derived from soya Beans, Liquid at room temperature, An investor will need to have 47,478 kgs of soybean seeds to produce 43,680 liters of vegetable cooking oil and 50 tons of packaging materials at $ 2,374 in the first year of project operation and production will keep on increasing as showed in table 2 below direct production costs.

Table 2-Direct production costs

Item	Unit Price	Year 1	Year 2	Year3	Year 4	Year 5
Purchases costs		23,074	23,074	24,723	26,371	32,262
Seeds (Soya Beans) kgs	0.486	47,478	47,478	50,870	54,261	66,383
Packing materials (plastic bags) in dozens	0.05	2,374	2,374	2,543	2,713	3,319
Total Direct Production Cost		**25,448**	**25,448**	**27,266**	**29,084**	**35,581**

7.0 Demand and Market Analysis

Data from the Food Agricultural Organisation (FAO) shows that over 2000-2013, the average annual growth rate in vegetable oil production was 5.2% . Production from 2014 to 2017 is projected to have grown at a rate of 5%.The oilseed sector has also grown alongside the vegetable oil sector through development of the value chain. Production of oilseeds has grown on average by 17% annually from 2011 to 2017. Oilseeds produced in Uganda include sunflower, cottonseed, groundnuts, and soybean and sesame seed. The market is wide as oil is a household item with major consumers such as hotels, restaurants, retail & wholesale shops. The major players in the field include; Mukwano industries ltd, BIDCO and imported oil from USA.

8.0 Project Overheads and Operational Costs

Item Description	year 1	year 2	year 3	year 4	year 5	Total
Fuel for Company Vehicle	1,622	1,622	1,622	1,622	1,622	**8,110**
Stationery	162	162	162	162	162	**810**
Electricity	4,865	4,865	4,865	4,865	4,865	**24,325**
Water*	486	486	486	486	486	**2,430**
Fuel & Generator maintenance.	324	324	324	324	324	**1,620**
Communication	324	324	324	324	324	1,620
Total	**7,783**	**7,783**	**7,783**	**7,783**	**7,783**	**38,915**

9.0 Sources of Supply of Machinery and Equipment and raw materials

Equipment can be procured locally or imported from India by making online order through WWW.alibaba .com; Raw materials can be easily and cheaply procured from the local market from the Eastern and Northern part of Uganda.

10.0 Government Facilities and Incentives

An agricultural fund can be easily accessed in the country and there are tax exemptions given to investors in Uganda.

Incentives include Vat input refunds on starter up costs.

11.0 Profitability for a 5- Year period

This table shows the revenue, cost of sales, operating expenses, Net profit and the return on the investment after tax

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Sales Revenue	70,849	70,849	75,910	80,970	101,213	399,791
cost of sales	25,448	25,448	27,266	29,084	35,581	142,828
Gross Profit	45,401	45,401	48,644	51,886	65,632	256,963
Operating Expenses						
Personnel and Labour Costs	15,892	15,892	15,892	17,190	17,190	82,056
Audit fees	3,000	3,000	3,000	3,000	3,000	15,000
Transport and fuel	8,432	8,432	8,432	8,432	8,432	42,160
Stationery	162	162	162	162	162	810
Energy	162	162	162	162	162	810
Water	1,623	1,623	1,623	1,623	1,623	8,115
Fuel & Generator maintenance.	486	486	486	486	486	2,430
Communication	486	486	486	486	486	2,430
Depreciation Expenses	9,006	7,120	5,633	4,459	3,531	29,750
Total Operating Expenses	**39,249**	**37,363**	**35,876**	**36,000**	**35,072**	**183,561**
Net Profit(Loss) before Interest and Tax	6,152	8,037	12,768	15,887	30,559	73,402
Taxation(30%)	1,845	2,411	3,830	4,766	9,168	22,021
Net Profit/(Loss) After Tax	4,306	5,626	8,937	11,121	21,391	51,381
Cumulative Net Profit(Loss) After Tax	4,306	9,932	18,870	29,990	51,381	114,479
Annual Rate of Return on Investment	9%	14%	25%	36%	79%	
Average rate of return on Investment	33%					

1. Production costs are assumed for 312 days per year with daily capacity of processing 140 litres of soya bean seed cooking oil per day.
2. Depreciation (fixed asset write off) assumes 4-years life of assets written off as per details in the schedules
3. Direct costs include: materials, supplies and other costs that directly go into production of the product.
4. Total monthly workdays assumed are 26-days.
5. The valuation currency used is United States Dollar

2.1.16 Banana Processing-Snacks

1.0 Introduction

Banana snacks are crunchy slices of dried bananas prepared from sweet bananas. The market for banana snacks is mainly comprised of young children as well as adults and therefore their demand is high in places like boarding schools, supermarkets and towns. They are relatively cheap snacks and hence their demand is high and commands a mass national market. Uganda has a population of 31 million of which the youth and the children who are the key broad target market comprise over 70%. Furthermore, of the targeted youth 30% of the targeted youth and children who live in urban centers which are the key concentrations of market demand.

2.0 Production Capacity, Technology And Process Description

Production is expected to be 60,000 kgs of banana crisps in the first year and this translates into 200Kgs per day assuming production will be carried out for 300 days in a year and this is expected to have quadrupled by year 5 to 240,000 kgs which translates to 800 kgs per day due to increased demand and intensive advertising. Production technology will be labor intensive due to the simplicity of the production process with the main machinery being used for packaging.

The main processed banana snacks in focus are banana crisps as they have the highest market demand in Uganda and call for simple processing technology using simple equipment whose investment capital cost requirements are low.

- The banana snacks production process starts with obtaining of ripe bananas (Bogoya).
- The ripe bananas are washed, peeled and sliced into desired slice shapes.
- The slices are deep fried in a deep sided pan in small batches of 1 layer per batch until they are crispy and slightly brown.
- After frying, the banana slices/crisps are removed and placed on a plate with a layer of paper towel to soak up the surface oil and allowed to cool.
- After cooling, the crisps are packaged in the desired quantities and boxed, ready for sale.

Targeted Scale Of Investment, Capital Investment Requirements And Equipment

The minimum capital for the Scale of investment for this business idea is estimated at $ 42,000 and is expected to yield an estimated annual amount of $700,000 over a five year period. Not a lot of equipment will be used due to the simple processing nature as machinery will only be used for packaging. The rest of the processing being carried out manually and hence the small size of the capital investment

requirements in comparison with the revenue. This capital expenditure will be carried out over the five year period as illustrated in the table below;

Investment Programme

		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	**Fixed Assets**			30,200	0	0	11,025	**500**	**0**	**41,725**
1.1	Land	3,000	7	13,000	0	0	0	500	0	13,500
1.1.1	Lease hold land (5 year lease)	2,000	6	12,000						12,000
1.1.2	site preparation and development	1,000	1	1,000				500		**1,500**
1.2	Building works and development			2,000	0	0	1,000	0	0	3,000
	Gas plates instalation	2,000	1	2,000	0		1,000			**3,000**
1.3	Equipment	1,050	21	9,250	0	0	750	0	0	10,000
	Gas (Big cylinder)	1,000	1	1,000						1,000
	Frying pans	50	20	250			750			1,000
	Packaging machine.	8,000	1	8,000						**8,000**
1.4	Furniture, Equipment & furnishings			3,950	0	0	1,275	0	0	5,225
	Kitchen Requirements (Gas plates, Stainless steel working tables,Cutlery, Deep fryers, Kitchen weighing scale,)	2,000	2	800			1,200			2,000
	Office Requirements (Fax Machine, Computers, Printer, Chairs, Filing cabinets, Computer table, Cables, connectors and installation)	3,000	1	3,000						3,000
	Protective work gear(Aprons, gloves, boots)	15	15	150			75			**225**
1.5	Vehicles	5000	2	2,000	0		8,000			**10,000**
2	**Preliminary Expenses**			**500**	**0**	**0**	**0**	**0**	**0**	**500**
3	**Working Capital**			18,613			0	0		18,613
TOTAL INVEST-MENT				**49,313**	**0**	**0**	**11,025**	**500**	**0**	**60,838**

4.0 Raw Material Requirements

The major raw material for banana snacks processing is the sweet bananas, preferably Bogoya which has the most demand in Uganda. These can be obtained from farmers in western Uganda at a relatively low price. In the first year of production, 30,000 Kgs are expected to be produced and this will require 6000 bunches of Bogoya with each bunch being converted to 5kgs of banana crisps, with each bunch costing about 4$ and this will translate to $24,000 in the first year and will be expected to quadruple to $96,000 by year 5 as illustrated in the table below;

Direct Production/Purchase Costs

Purchases		Units	Year1	Year 2	Year3	Year 4	Year 5	Average
Volumes (quantities	Bananas	Bunches	12,000	24,000	38,400	48,000	48,000	34080
	Packaging material	Pcs	60,000	120,000	192,000	240,000	240,000	170400
Unit Costs	Bananas	US$	4	4	4	4	4	4
	Packaging material	US$	0.2	0.2	0.2	0.2	0.2	0.2
Project Cost	Bananas	US$	48000	96000	153600	192000	192000	136320
	Packaging material	US$	12000	24000	38400	48000	48000	34080
	Total	**US$**	**60,000**	**120,000**	**192,000**	**240,000**	**240,000**	**170,400**

5.0 Market Analysis And Marketing Plan

The market for banana snacks is mainly comprised of small scale producers most of whom produce for a small market and in small fixed quantities with substandard packaging which presents an opportunity as the market can be dominated if we produce banana crisps in good quality packaging and in different size packages at an affordable cost. There is a high demand for banana snacks especially banana crisps in Uganda particularly in densely populated towns where they are consumed by the young children and middle aged population as leisure snacks. Banana crisps are also consumed in large institutions such as schools a snack. A substantial amount of this market can be captured through intensive captivating marketing to attract the young children through television, radio and billboard advertising. Bogoya is a cheap raw materials to obtain and this makes production of banana snacks a relatively cheap investment which will yield affordable products.

6.0 Project Costs (Fixed Cots & Working Capital)

Fixed costs will amount to an estimate of $22,000 in the first year of operation and will increase slightly despite the huge increase in production by year 5 to $22,000 because of economies of scale as illustrated in the table below. These costs comprise of utilities, wages, stationary and fuel, to mention but a few.

Expenditures/Costs	Year1 US$	Year 2 US$	Year3 US$	Year 4 US$	Year 5 US$	Total
Salaries and Wages estimate	10,800	10,800	10,800	10,800	10,800	54,000
Office Overheads and Administration Costs	5,674	5,618	5,839	6,507	6,711	30,349
Depreciation Expenses	5,856	5,171	4,643	4,234	5,163	25,069
Total	**22,330**	**21,589**	**21,282**	**21,542**	**22,674**	**109,418**

7.0 Sources Of Supply Of Raw Materials

- The major raw material, which Bogoya can be obtained from farmers in western Uganda
- Equipment for frying such as Pans can be obtained from Katwe, Kampala
- Packaging equipment can be obtained online from sites such as www.amazon.com and www.alibaba.com

8.0 Government Facilities And Incentives Available

The Government is willing to support Agro – processing industries by providing Capital/Inputs, Tax exemptions, Land, Basic infrastructure, Grants and long term Loans at relatively low interest rates

9.0 Profitability For A 5 Year Period

With the buying price estimated to be $1.3 per Kg of banana crisps, revenue in the first year will be estimated at US$ 80,000 and this will have increased to US$ 323,000 by year 5 with a profit estimate of 330,000 over a five year period as illustrated in the table below;

Table 10 - Projected Profit and Loss Account (in US$)

Activity		Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		**80,547**	**161,094**	**257,751**	**322,189**	**322,189**	**1,143,771**
1	Banana crisps	76,947	**153,894**	**246,231**	**307,789**	**307,789**	**1,092,651**
2	Production residue	3,600	**7,200**	**11,520**	**14,400**	14,400	51,120
Cost of Goods Sold		60,000	120,000	192,000	240,000	240,000	852,000
Gross Profit		20,547	41,094	65,751	82,189	82,189	291,771
Operating Expenses							
	Salaries and Wages estimate	10,800	10,800	10,800	10,800	10,800	54,000
	Office Overheads and Admin. Costs	5,674	5,618	5,839	6,507	6,711	30,349
	Depreciation Expenses	5,856	5,171	4,643	4,234	5,163	25,069
Total Operating Expenses		22,330	21,589	21,282	21,542	22,674	109,418
Net Profit(Loss) before Tax		-1,783	19,505	44,469	60,647	59,515	182,352
Taxation(30%)		(535)	5,852	13,341	18,194	17,854	54,706

Net Profit/(Loss) After Tax	-1,248	13,654	31,128	42,453	41,660	127,647
Cumulative Net Profit(Loss) After Tax	-1,248	12,406	43,534	85,987	127,647	255,293
	-5%	69%	207%	195%	243%	

10.0 Assumptions

- Production to be done for 300 days in a year
- The Exchange rate per dollar is UGX 3,800 per $
- One bunch of bananas translates to 5kgs of banana crisps

11.0 Reference List

- www.alibaba .com
- UIA Compendium

2.1.17 Animal Feeds Processing

1.0 Introduction

Feed manufacturing refers to the process of producing animal feed from raw agricultural products. Fodder produced by manufacturing is formulated to meet specific animal nutrition requirements for different species of animals at different life stages, production level of the animal, species and the cost of the feed.

This extensive process refer to the use of grains, cereals, vegetable and animal by-products, oil and fats, molasses, vitamins and minerals to create a balanced formula for different animals to cover all nutritional requirements. After first cleaning the seed particle size reduction (grinding) is the next step in this process, all ingredients needs to be reduced in size to accomplish a homogeneous process into the mixer. Once ground, the ingredients are stored separately prior weighing and dosing and then mixing. In the mixer the ingredients remains for a certain amount of time (wet and dry mixing time) and then some liquids are added. From here the mash can go to two different processes, for pelletized feeds or extruded feed, these two processes involve starch gelatinization (total or partial) to create a feed pre-digestion effect and at the same time the bacteriologic level is reduced due to the high temperatures reached at the conditioners where live steam is used. Once molded (into pellet or collets) the feed is dried (if required), cooled, covered with liquids (fat/oil/enzymes/flavors coating) and then screened to remove fines prior bagging or bulk storage.

2.0 Production Capacity

2.1 Targeted Production Capacity

Production capacity	Year1	Year 2	Year3	Year 4	Year 5	Total
Targeted Production Capacity (kgs)	300,000	300,000	300,000	300,000	300,000	1,500,000

2.2 Targeted Cost of production

	Unit Cost	Year1	Year 2	Year 3	Year 4	Year 5	Total
Purchases		0	0	0	0	0	0
Manufacturing of Animal Feeds		35,130	35,130	35,130	43,913	43,913	193,215
Barley Residue/ cake	0.03	4,500	4,500	4,500	5,625	5,625	24,750
Cotton/Sun flower cake	0.2	18,000	18,000	18,000	22,500	22,500	99,000
Snail Sheils	0.2	7,200	7,200	7,200	9,000	9,000	39,600
Salt	0.29	4,350	4,350	4,350	5,438	5,438	23,925
Molases 3%	0.12	1,080	1,080	1,080	1,350	1,350	5,940

The main finished products from this process are: Poultry Feed, Swine Feed, Cattle Feed, Horse Feed, Pet Food, Fish Feed and Shrimp Feed.

4.0 Scale of Investment

4.1 Scale of Investment, Capital Investment

		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Ttotal
1	Fixed Assets			**57,935**	**57,935**	**-**	**7,000**	**-**	**-**	**77,735**
1.1	Land	10,000	2	20,000	20,000	-	-	-	-	**20,000**
1.2	Building works and development			21,000	21,000	-	-	-	-	21,000
	Construction off office block	6,000	1	6,000	6,000					**6,000**
	Construction of processing shelter	15,000	2	15,000	15,000		-			**15,000**
1.3	Processing Facilities and Equipment			4,935	4,935	-	-	-	-	4,935
	Beam Weighing Scale	300	1	300	300					300
	Moisture Meter	500	1	500	500					500
	Feed pellet Machine	500	1	500	500		-			500
	Feed Blender mixer	1,900	1	1,900	1,900		-			1,900
	Hammer Mill (grinder)	845	1	845	845					845
	Sorting and Grading machine	890	1	890	890					890
1.4	Furniture, Equipment & furnishings			5,000	5,000	-	-	**-**	**-**	**5,000**
	Office Equipments	3,500	1	3,500	3,500		-			3,500
	Office Furniture	1,500	1	1,500	1,500					1,500
1.5	Vehicles	**7000**	**2**	**7,000**	**7,000**	**-**	**7,000**			14,000
2	Preliminary Expenses			2,000	2,000	-	-	-	-	2,000
3	Working Capital			**10,451**	10,451		**-**	**-**		**10,451**
	TOTAL INVESTMENT			**70,386**	**70,386**	**-**	**7,000**	**-**	**-**	**77,386**

Equipment for making cattle feeds pellets

Machinery and equipment to make cattle feeds required in the cattle feed pellets production line are as following:

1. Tank (other containers) for raw and auxiliary material storage
2. Feed Hammer mill (feed pellet Grinder) for grinding the raw materials
3. Feed pellets Blender (feed pellet mixing machine) used to mixing powered materials to improve the uniformity of the ingredients
4. Feed pellet mill (feeds pelletize) is the main equipment for making the cattle feeds pellets. For cattle feeds will, we supply flat die feed pellet mill design better for home use and ring die pellets mill design for cattle feed factory.
5. Feed pellets cooler: this is used to cool the hot and moisture feed pellets (if your production capacity per day is not so much, you will not need this pellet cooler, just dry the pellet in the sun is ok.)
6. Feed pellet screening and grading machine is used to remove the fine and grade the pellets which is the preparation for packaging.
7. Feed pellet weighing machine is used to weigh and pack the pellets in the uniformity.
8. Packaging machine (if making cattle feed pellets for own farm, you can choose to store the pellets in a dry container instead of buying packaging machine while for an automatic feed pellets plant, the weight and packing machine is necessary).

5.0 Raw materials:

1. Cereals: maize, Barley, Oats, Wheat, sorghum
2. Seeds from Oleaginous crops: soy, Flax and sunflower
3. Seeds from legumes: Broad beans, Field beans and Protein peas
4. Dried Beef Pulp
5. Other more appetizers in feeds pellets
6. Molasses, up to a maximum of 3%

	Unit Cost	Year1	Year 2	Year3	Year 4	Year 5	Total
Purchases	Unit / kg	0.195	**0.195**	**0.146**	**0.183**	**0.183**	0.181
Manufacturing of Animal Feeds		35,130	35,130	35,130	43,913	43,913	193,215
Barley Residue/ cake	0.03	4,500	4,500	4,500	5,625	5,625	24,750
Cotton/Sun flower cake	0.2	18,000	18,000	18,000	22,500	22,500	99,000
Snail sheils	0.2	7,200	7,200	7,200	9,000	9,000	39,600
salt	0.29	4,350	4,350	4,350	5,438	5,438	23,925
Molases 3%	0.12	1,080	1,080	1,080	1,350	1,350	5,940

6.0 Market Analysis

Agriculture is now a livelihood of most Uganda therefore most of population engaging in livestock farming haves started practicing zero grazing due to lack land for large scale livestock farming. This has increased the demand for artificial feeds, instead of grazing on natural grass. The demand for animal feeds has gone high creating market for animal feeds mainly through programme of operation for wealth Creation.

7.0 Projected Revenues and Costs

7.1 Unit Prices

Year	Year1	Year 2	Year3	Year 4	Year 5	Total
Animal Feeds						
Estimated sales per day	**800**	**900**	**900**	**1,000**	**1,000**	4,600
Unit prices	0.34	0.34	0.34	0.34	0.34	0
No. of business days per year	300	300	300	300	300	1,500
Estimated Revenue	82,618	92,946	92,946	103,273	103,273	475,055
Total Revenue Projection	82,618	92,946	92,946	103,273	**103,273**	475,055
Total Revenue	**82,618**	**92,946**	**92,946**	**103,273**	**103,273**	**475,055**

7.2 5-Year Project Business Overheads and Administration Costs

Operating Expenses							
Personnel and Labour Costs	6	11,462	11,462	11,462	11,462	11,462	57,310
Building repairs & maint'nce(4% of cost)		1,680	1,680	1,680	1,680	1,680	8,400
Furnishing Repairs & Maint.(10% of cost)	10.0%	500	1,000	1,000	1,000	1,000	4,500
Insurance		1,069	1,069	1,069	1,069	1,069	5,344
Audit fees		600	600	600	600	600	3,000
Transport and fuel		2,500	2,500	2,500	2,500	2,500	12,500
Stationery		810	810	810	810	810	4,050
Energy		4,000	4,000	4,000	4,000	4,000	20,000
Water		350	350	350	350	350	1,750
Internet		700	700	700	700	700	3,500
Fuel & Generator maintenance.		750	750	750	750	750	3,750
Communication		250	250	250	250	250	1,250
Depreciation Expenses		2,907	2,514	5,090	4,419	4,729	19,660
Total Operating Expenses		**27,578**	**27,684**	**30,261**	**29,590**	**29,900**	145,013

7.3 Profitability for a 3-year period (Summary of Financial Analysis table)

Activity	BL	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		82,618	92,946	92,946	103,273	103,273	475,055
Animal feeds		82,618	92,946	92,946	103,273	103,273	475,055
Cost of Goods Sold		35,130	35,130	35,130	43,913	43,913	193,215
Gross Profit	0	47,488	57,816	57,816	59,360	59,360	281,840
Operating Expenses							
Personnel and Labour Costs	6	11,462	11,462	11,462	11,462	11,462	57,310
Building repairs & maint'nce(4% of cost)		1,680	1,680	1,680	1,680	1,680	8,400

Furnishing Repairs & Maint. (10% of cost)	10.0%	500	1,000	1,000	1,000	1,000	4,500
Insurance		1,069	1,069	1,069	1,069	1,069	5,344
Audit fees		600	600	600	600	600	3,000
Transport and fuel		2,500	2,500	2,500	2,500	2,500	12,500
Stationery		810	810	810	810	810	4,050
Energy		4,000	4,000	4,000	4,000	4,000	20,000
Water		350	350	350	350	350	1,750
Internet		700	700	700	700	700	3,500
Fuel & Generator maintenance.		750	750	750	750	750	3,750
Communication		250	250	250	250	250	1,250
Depreciation Expenses		2,907	2,514	5,090	4,419	4,729	19,660
Total Operating Expenses		**27,578**	**27,684**	**30,261**	**29,590**	**29,900**	145,013
Net Profit(Loss) before Interest and Tax		**19,911**	**30,131**	**27,554**	**29,770**	**29,460**	136,827
Development Loan Interest Expense		-	-	-	**-**	**-**	-
Net Profit/(Loss) before Tax		**19,911**	**30,131**	**27,554**	**29,770**	**29,460**	136,827
Taxation (30%)	30%	**5,973**	**9,039**	**8,266**	**8,931**	**8,838**	41,048
Net Profit/(Loss) After Tax		**13,937**	**21,092**	**19,288**	**20,839**	**20,622**	95,779
Cumulative Net Profit(Loss) After Tax		**13,937**	**35,029**	**54,317**	**75,156**	**95,779**	274,219
Annual Return on Investment(After Tax)		**24%**	**22%**	**22%**	**23%**	**23%**	**1.1**

9.0 Sources of Supply of Machinery and Equipment, Raw Materials

The raw materials for making animal feeds from within the country, we use bi-products of beers, cooking oils like cotton cakes, soya cakes, sunflower cakes and cereal crops like soy beans, maize, sorghum, millet.

For machinery and equipment, these are imported from china, Japan, and others from local traders which Agriculture farm inputs.

10.0. Government Facilities and incentives Available

The Government has come under Operation Wealth Creation is giving out animals and seedlings to youth, women, and other groups. This programme has created market for animals feeds in the country. The Government gives out animals and the feeds for three months.

2.1.18 Soya Meal Processing

2.0 Introduction

Soya bean meal is the most important protein source used to feed farm animals. It is a by-product of the extraction of soybean oil from soya beans. The growth of poultry, livestock farming and aquaculture in Uganda has fuelled the demand for this high-quality source of protein. In its implementation of the Agriculture Sector Strategic Plan (ASSP 2015/16 to 2019/20) which is a 5 year strategy for the development of the agriculture sector, in line with the National Development Plan 2,the Ministry of Agriculture Animal Industry and Fisheries, under the grains value chains, acknowledges that there is need to increase grain processing capacity. This opens up viability for this business idea. The product has a very wide market (over 30,000 tons demanded annually) with low competition since the introduction of China to the Uganda market that already had Rwanda and DRC as the major importers. The soya bean from which it is got is also emerging as an important crop in Pallisa, Soroti, and Kumi districts.

3.0 Production capacity, technology and processes description

It is projected that this plant will produce over half a ton of soybean meal per day. This translates into 12 tons per month and 144 tons for the first year of operations.The sales will grow by 5% per annum for the next 4 years, resulting into annual output of 229.52 tons of soybean meal in the 5th year

Projected Scale of Operations

Year	Year1	Year 2	Year 3	Year 4	Year 5
Projected Sales		5%	10%	15%	20%
Tons per month	12.00	12.60	13.86	15.94	19.13
Tons per year	144.00	151.20	166.32	191.27	229.52
Price Per Kg (US$)	0.92	0.92	1.05	1.05	1.05
No. of business days per year	312	312	312	312	312

Process Description

In order to keep this a small-scale operation, the soya bean meal is processed from the flakes which are purchased as a by-product, rather than processing from the soya bean which makes the process very capital intensive and expensive. The soybean meal is produced through the following steps;

1. The soybean flakes (which are bought pre-cooked, drained and dried) are ground using a grinder machine
2. From the grinder, the meal will go to a dryer-cooler where it is dried to about 13-14 percent moisture and cooled for safe storage.

3. The meal is then packed for storage (ready for sale)

4.0 Minimum scale of investment, capital investment requirements and equipment

This investment is small-scale in nature, costing about USD 24,609 in the first year, with all the money injected as equity.

		Unit Cost	Quan-tity	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	**Fixed Assets**			**23,240**	**0**	**0**	**0**	**0**	**0**	**43,090**
1.1	Processing Plant	11,990		**12,090**	**0**	**0**	**0**	**0**	**0**	**12,090**
1.1.1	Meal Grinder	11,000	1	11,000						11,000
1.1.2	Drier- cooler	990	1	990						990
1.1.3	Weighing scale	100	1	100						
1.2	Office Requirements			1,150	0	0	0	0	0	21,000
1.2.1	Computer	300	1	300		0		0	0	**300**
1.2.2	Printer	150	1	150						150
1.2.3	Tables & Chairs	550		550						550
1.2.4	Filing Cabins	150		150						**150**
1.3	Vehicles			10,000						10,000
	Delivery Truck		30	10,000						10,000
2	**Preliminary Expenses**			2,324	0	0	0	0	0	2,324
3	**Working Capital**			13,263			0	0		13,263
Total Investment				**38,827**	**0**	**0**	**0**	**0**	**0**	**58,677**

5.0 Raw materials requirements

For the proposed 0.035 tons per day (0.9 tons per month) of soybean meal, 10.8 tons of soybean flakes are required for the first year. In order to keep this a small-scale operation, the soybean meal is processed from the flakes which are purchased as a by-product, rather than processing from the soya bean which makes the process very capital intensive and expensive.

Raw materials (1 Year)

Material	Unit	Unit Price	Quantity	Total (USD)
(a) Soybean flakes	Tons	526.32	222.2	116,932

6.0 Market Analysis

Uganda still faces a serious deficit in soybean meal with the country's Ministry of Agriculture Animal Industries and Fisheries estimating the annual demand to be between 30,000 and 50,000 tons against domestic production of 10,000 tons. The deficit provides an opportunity of a market to be tapped by investing in the processing of the soybean meal. Soybean meal is mostly used as animal feed because of its high protein content. Therefore the potential markets for it are the rapidly growing poultry, livestock farming and aquaculture in Uganda. Soybean meal is also marketed as low-fat soy flour for human consumption

7.0 Project Costs

Direct Production/Purchase costs

		Year1	Year 2	Year3	Year 4	Year 5
Purchases		116,932	122,778	135,056	155,314	186,377
(a) Soybean flakes		116,932	122,778	135,056	155,314	186,377

Operating Costs

Item Description	year 1	year 2	year 3	year 4	year 5	Total
Transport and fuel*	932	932	932	1,864	1,864	**6,524**
Stationery	158	158	158	158	158	**789**
Electricity (Power)*	924	924	924	1,848	1,848	**6,468**
Facility Rent	3,158	3,158	3,158	3,158	3,158	**15,789**
Total	**5,172**	**5,172**	**5,172**	**7,028**	**7,028**	**29,571**

Project Product Costs & Price Structure in US$

Product	Unit	Unit Price	Gross Margin	Unit Cost
Soybean Meal		0.92	30.0%	0.6

Revenue Projections

Year	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Sales Growth		5%	10%	15%	20%
Tonnes per Month	12.0	12.6	13.9	15.9	19.1
Tonnes per Year	144.0	151.2	166.3	191.3	229.5
Price Per Kg (US$)	0.92	0.92	1.05	1.05	1.05
No. of business days per year	312	312	312	312	312
Estimated Revenue From Soybean Meal	132,632	139,263	175,074	201,335	241,602

8.0 Sources of Supply of Machinery and equipment and raw materials

Plant and Machinery consists of only a meal grinder, drier cooler, and a weighing scale. This machinery can be locally purchased in Uganda especially from Agro-Sokon – Uganda limited and China Huangpai Food Machines Uganda located at Lugogo UMA Show ground. The soybean flakes can be locally purchased from Mukwano Industries Limited which is a major processor of soya bean. The soybean flakes are a by-product of soymilk and oil.

9.0 Government facilities and incentives available

Government is willing to finance Agro-Processing Industries and provide technical support to them in her bid to promote industrialization. In addition, the government also announced early in 2017 amendments to its VAT Act to exempt from VAT crop extension services, animal feeds and premixes. The removal of the tax is a huge incentive to the industry.

10.0 Profitability

Activity	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Revenue		132,632	139,263	175,074	201,335	241,602	889,905
Soybean Meal		132,632	139,263	175,074	201,335	241,602	889,905
Cost of Goods Sold		116,932	122,778	135,056	155,314	186,377	716,457
Gross Profit	0	15,700	16,485	40,018	46,020	55,224	173,448
Operating Expenses							
Personnel and Labour Costs		3,947	3,947	3,947	3,947	3,947	19,737
Furnishing Repairs & Maint.(10% of cost)	10.0%	115	115	77	115	152	575
Transport and fuel*		932	932	932	1,864	1,864	6,524
Stationery		158	158	158	158	158	789
Electricity (Power)*		924	924	924	1,848	1,848	6,468
Facility Rent		3,158	3,158	3,158	3,158	3,158	15,789
Packaging material (50 kg sisal bags)		189	199	219	252	302	1,160
Depreciation Expenses		2,887	2,557	2,265	2,007	0	9,717
Total Operating Expenses		**12,311**	**11,990**	**11,680**	**13,349**	**11,430**	**60,760**
Net Profit(Loss) before Tax		3,389	4,495	28,337	32,671	43,795	112,688
Taxation (30%)	30%	**1,017**	**1,348**	**8,501**	**9,801**	**13,138**	**33,806**
Net Profit/(Loss) After Tax		2,372	3,146	19,836	22,870	30,656	78,881
Cumulative Net Profit(Loss) After Tax		2,372	5,519	25,355	48,225	78,881	78,881
Annual Return on Investment(After Tax)			**16%**	**111%**	**89%**	**52%**	

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2.1.19 Rice Milling & Packaging

2.0 Introduction

Milling is a crucial step in post-production of rice. The Rice milling industry is one of the most electricity energy consuming industries.

The basic objective of a rice milling system is to remove the husk and the bran layers, and produce an edible, white rice kernel that is sufficiently milled and free of impurities. The main by-products of rice are rice husk or hull, rice bran, and brewer's rice. The rice milling facility comes in various configurations, and the milling components vary in design and performance. "Configuration" refers to how the components are sequenced. The following are the three stages show a modern commercial mill catering to the higher end market. It has three basic stages,

1. the husking stage,
2. the whitening-polishing stage, and
3. The grading, blending, and packaging stage.

Semi-automatic bagging machines, in which a weighed amount of product is discharged into an open sack, may be cost-effective for larger scale mills. Sacks are then sealed by either tying the open endwith a string using a knot or by stitching the top of the sack using a stitching machine like an electric sack stitcher.

This business idea is for milling and packaging of rice. The milling process in larger commercial mills combines a number of operations that produces better quality and higher yields of white rice from paddy or rough rice

According to Uganda's vision 2040 report, Agriculture is the main stay of the Ugandan economy employing 65.6 per cent (UBOS2010)ofthe labourforce and contributing 21 percent to the GDP. In addition, by 2007 the sector ac- counted for 47 percent of total export earnings. Its contribution to the GDP has been declining but remains very important to provide a basis for growth in other sectors therefore, milling and packaging business idea will be viable because there will be demand from the above analysis locally thus providing huge potential for Uganda to generate more wealth by engaging in the export of processed rice

milling and packaging around the region, especially to the Republic of South Sudan , Burundi, Somalia, Democratic Republic of Congo (DRC) among others.

Milling, or removing the bran, can be an added value process performed in origin. By offering an added value process you increase the margin on rice production

The opportunity for value addition through agro-processing is enormous. This will enhance Uganda's competitiveness on the world market, boost foreign exchange earnings and employment. It can also reduce wastage, enhance food security, improve livelihoods for low-income groups and empower disadvantaged groups of society like rural women, youth groups among others.

3.0 Production Capacity, Technology and processes Description

3.1 Targeted Scale of Operation

Year			Year1	Year 2	Year3	Year 4	Year 5	Total
Production		100%	50%	50%	60%	70%	80%	
Supar Rice Gradie 1 in kgs	70%	316,000	158,000	158,000	189,600	221,200	252,800	1,295,600
Supar Rice Gradie 2 in kgs	30%	63,200	31,600	31,600	37,920	44,240	50,560	259,120
No. of business days per year			316	316	316	316	316	

Rice production process

During the milling stage the rice moves through a multifaceted process. When rice arrives at the mill, it is ushered through a series of sorting machines, separating the kernels, encased in an inedible hull or husk, from any debris.

The rough rice passes through "sheller" machines that remove the hull. What remains is brown rice, with the bran layers still surrounding the kernel. The grains of brown rice are milled by machines that rub the grains together under pressure. This abrasion removes the bran layer, revealing white or "polished" rice.

Some mills produce parboiled rice. Parboiling is a steam pressure process in which rough rice is soaked, steamed and dried before milling. Milled white rice, at its best, is made up of clean, polished, whole kernels. Many rice mills use laser sorters that look for broken or discolored kernels and sort them from the whole kernels of rice.

In summary, Dried and cleaned paddy is de-husked by aspiration, and the de-husked brown rice is got. The brown rice is placed in a polisher where the polished rice and bran are separated. After sieving the polished rice, the broken rice is separated and the sieved rice is then packed in bags for dispatch.

It is premised on processing 1,000 Kg per day, which translates into 25,000 Kg per month. The revenue potential is estimated at US$ 10,665 per month translating into US$ 127,980 per year. The total investment is estimated cost at USD 121,184 the project is also estimated to yield a net profit margin of 5.3% in the first two years.

4.0 Scale of Investment, Investment Programme and Capital Financing Structure

4.1 Scale of Investment and Investment Programme

The capital investment cost for setting up a Rice mill will be approximately **USD 10,865** with land to be approximate be around 1 acres.

Capital Investment Item		Unit Cost	Qty	Year 0	Year1	Year 2	Year 3	Year 4	Year 5	Total
1	Fixed Assets			**76,979**	**0**	**0**	**22,100**	**0**	**0**	**99,079**
1.1	Land	**10,667**	**1**	**19,067**	**0**	**0**	**0**	**0**	**0**	**19,067**
	Land	10,667	1	10,667						10,667
1.1.1	Rent Ware House	6,000	1	6,000						6,000
1.1.2	Rent - Office	2,400	1	2,400						2,400
1.2	Building works and development			**24,640**	**0**	**0**	**0**	**0**	**0**	**24,640**
	Rice packaging machine	5,650	1	5,650	0	0	0	0	0	5650
	Rice huller and starter	2,200	1	2,200						2,200
	Weighing scale	170	2	340						340

Capital Investment Item		Unit Cost	Qty	Year 0	Year1	Year 2	Year 3	Year 4	Year 5	Total
	Motor	450	1	450			450			900
	Vehicle Lorry	16,000	1	16,000			16,000			16,000
1.3	Furniture, Equipment & furnishings			372	0	0	0	**0**	**0**	**372**
	Tables	54	3	162	0	0		0	0	162
	Chairs	40	3	120	0					120
	Safe Box	90	1	90	0					90
1.4	Vehicles		0	**16,000**	**0**		**16,000**			**16,000**
2	Preliminary Expenses			**8,000**	**0**	**0**	**0**	**0**	**0**	**8,000**
3	Working Capital			**36,205**			**0**	**0**		**36,205**
	Total Investment			**121,184**	**0**	**0**	**22,100**	**0**	**0**	**143,284**

4.2 Capital Financing Structure

	Financing Source	Structure	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Equity	0.6	72,710	0	0	0	0	0	72,710
2	Loan	0.4	48,474		0	0	0	0	48,474
	Total Capital		**121,184**	**0**	**0**	**0**	**0**	**0**	**121,184**

5.0 Raw Materials

6.0 Market Analysis

The locally produced rice has potential to be supplied to both the domestic and foreign markets. Although it is said to compete with imported varieties the demand still outstrips the supply especially with the opening up of the Southern Sudan market.

Therefore to out compete the imported rice, Government agricultural policies should be directed towards increased growth of the agricultural sector, improvement on the Post Harvesting handling, to enable produce stone and dust free rice and increased agricultural contributions to the gross domestic product (GDP).

This will require the allocation of more government resources to agriculture and the implementation of policies aimed at solving the problems associated with technical, socio-economic, macro- and micro-economic constraints, with the following objectives:

low-interest credit facilities for farmers; easy access to inputs at affordable prices, by reducing import duties on agricultural inputs and eliminating intermediaries; improved market infrastructures (i.e. markets, transport, roads and storage); improved roads and transport facilities within the farming areas to ease movement of labor, which is usually in short supply during the peak farming periods, and to prevent women, who are key personnel in many farming communities, from having to walk long distances to farms; infrastructures (e.g. modern mills) for better post-harvest handling of paddy, which will increase milling out-turn and the quality of the product and lead to better prices and incomes for producers; adequate funding for research and extension institutions, to support farmers as they increase their output, through the following interceptions: development of improved high-yielding varieties for farmers and value addition in production of rice.

Thus this locally produced rice will substitute the imported rice thus increasing the country's exports and also locally farmers can supply supermarket chains, retailers, wholesalers and the Armed Forces, schools, churches, NGOs among others

7.0 Project Costs (Fixed and Working Capital) and Revenues

Production/Processing Schedule

Year			Year1	Year 2	Year3	Year 4	Year 5	Total
Production		100%	50%	50%	60%	60%	60%	
Supar Rice Gradie 1 in kgs`	70%	316,000	158,000	158,000	189,600	189,600	189,600	1,200,800
Supar Rice Gradie 2 in kgs	30%	63,200	31,600	31,600	37,920	37,920	37,920	240,160
No. of business days per year			316	316	316	316	316	

Unit Pricing and Cost Structure

Menu Item		Unit	Unit Price	Gross Margin	Unit Cost
Production			0.0	25.0%	0.0
(a)	Super Rice Grade 1	kg	1.08	25.0%	0.8
(b)	Super Rice Grade 2	kg	0.89	25.0%	0.67
					1.5

Revenue/Sales Projections

Super Rice Grade 1

Year	Year1	Year 2	Year3	Year 4	Year 5	Total
Capacity	50%	50%	60%	60%	60%	
Super Rice Grade 1	158,000	158,000	189,600	221,200	252,800	
Sales price per kg	0.8	0.8	0.8	0.8	0.8	
No. of business days per year	365	365	365	365	365	
Estimated Revenue From sale of Rice grade 1	**127,980**	**127,980**	**153,576**	**179,172**	**204,768**	**793,476**

8.0 Equipment and Machinery Suppliers

- Agro Sokoni Limited, Plot 15/17 Nassar Road P.O .Box 22793 Kampala. Tel: 0414-257445
- Auto Sokoni Limited, Nkurumah Road, Kampala opposite Charm tower.

9.0 Government Facilities and Incentives Available

The government has come up with low-interest credit facilities for farmers; easy access to inputs at affordable prices, by reducing import duties on agricultural inputs and eliminating intermediaries; improved market infrastructures; improved roads and transport facilities within the farming areas to ease movement of produce and labor, which is usually in short supply during the peak farming periods.

Table 10 - Projected Profit and Loss Account (in US$)

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue	150,100	150,100	153,576	210,140	240,160	919,394
1. Super Rice Grade 1	127,980	127,980	26,544	179,172	204,768	**666,444**
2. Super Rice Grade 2	22,120	22,120	142,350	30,968	35,392	**252,950**
Gross Profit	150,100	150,100	153,576	210,140	240,160	919,394
Personnel and Labour Costs	12,600	12,600	12,600	19,200	19,200	76,200
Office Expenses and Administration Costs	16,800	17,800	17,800	17,800	17,800	88,000
Depreciation Expenses	112,637	88,170	69,389	130,389	102,292	502,877
Total Operating Expenses	142,037	118,570	99,789	167,389	139,292	667,077
Net Profit(Loss) before Interest and Tax	8,063	31,530	53,787	42,751	100,868	252,317
Development loan interest	0	37,136	29,920	21,472	13,024	101,552
Net profit/loss before tax	8,063	-5,606	23,867	21,279	87,844	150,765
Taxation 30%	2,419	0	7,160	6,384	26,353	45,230
Profit after tax	5,644	-5,606	16,707	14,895	61,491	105,536
Cumulative Net Profit(Loss) After Tax	**5,644**	**39**	**16,745**	**31,641**	**93,131**	**198,667**

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2.1.20 Silage and Hay Production

1.0 Introduction

Hay is grass that has been cut, dried, and stored, to be used as feed for grazing animals such as cattle, horses, goats, and sheep. Silage is fermented stored fodder that can be fed to cattle, sheep, and other grazing livestock. The difference is that, whereas hay is kept dry, silage is stored with more moisture. Mr. Besigye grows grass for hay on twenty acres and maize for silage on five acres.

Silage is the Grass or other green fodder compacted and stored in airtight conditions, typically in a silo, without first being dried, and used as animal feed in the winter. It is fermented and stored in a process called ensilage, ensiling or silaging, and is usually made from grass crops, including maize, sorghum or other cereals, using the entire green plant

2.0 Production Capacity, Technology and processes Description

2.1 Targeted Production Capacity

Year	Year1	Year 2	Year3	Year 4	Year 5
Quantities to produce based on projected demand (tones)	30,000	30,000	35,000	35,000	35,000
Rate per tone	5	5	5	5	5

2.2 Process of Making Silage and Hay

Silage is made by packing the chopped crop into a "pit" and packing it down well so that any oxygen pockets are eliminated. Oxygen pockets encourage spoilage of the feed. Silage can be interchangeable, especially since haylage or baleage involves the same process of ensiling to preserve feed for livestock

Silage is pasture grass that has been 'pickled'. It is a method used to preserve the pasture for cows and sheep to eat later when natural pasture isn't good, like in the dry season. The grasses are cut and then fermented to keep as much of the nutrients (such as sugars and proteins) as possible.

3.0 Scale of Investment, Capital Investment

		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	Fixed Assets			**29,311**	**-**	**-**	**14,865**	**-**	**-**	**44,176**
1	Land	**2,703**	**2**	**2,703**	**-**	**-**	**-**	**-**	**-**	**2,703**
1.1.1	Land Concession	2,703	1	2,703						2,703
1	Building works and development			6,486	-	-	-	-	-	6,486
	Office building	3,784	1	3,784	-					**3,784**
	production Shelter	2,703	1	2,703						**2,703**
1	Production Equipment			4,851	-	-	-	-	-	4,851
	Silage cutter with motor	1,905	2	3,811						**3,811**

	Beam weighing scale	270	2	541						**541**
	Moisture metre	500	1	500						**500**
1	Furniture, Equipment & furnishings			405	-	-	-	-	-	405
	office furniture	405	1	405			-			**405**
2	Vehicles	14,865	1	14,865	-		14,865			29,730
2	Preliminary Expenses	270	1	**270**	**-**	**-**		**-**	-	270
3	Working Capital			**20,270**			**-**	**-**		**20,270**
	TOTAL INVESTMENT			**49,851**	**-**	**-**	**14,865**	**-**	**-**	**64,716**

4.0 Sources of Financing

Financing Source		Structure	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Equity	1	49,851	-	-	14,865	-	-	64,716
	Total Capital		**49,851**	**-**	**-**	**14,865**	**-**	**-**	**64,716**

5.0 Raw Materials

It requires forage grass crops, sufficient soluble carbohydrates (sugars) for organic acid production. Adding molasses to the fodder is recommended since it is rich in sugar, which enables the bacteria to produce the organic acids immediately.

The more molasses you add, the faster the acidification and preservation process will occur

6.0 Market Analysis

Silage on local market it is not popular, since our climate favors our livestock farming, therefore silage need a lot of publicity to the livestock farmers so that they adopt the silage and Hey in the arid areas like Eastern Uganda, northern part of the country. On international market, silage and Hey are marketable in the developed countries like Canada,

7.0 5-Year Revenue Projections

Year	Year1	Year 2	Year3	Year 4	Year 5	Total
silage	162,162	162,162	189,189	189,189	189,189	891,892
Estimated Total Revenue	**162,162**	**162,162**	**189,189**	**189,189**	**189,189**	

8.0 5-Year Business Overhead Cost Projections

8.1 Personnel and Labour Costs (In US$)

	Yearly Cost	Year 1	Year 2	Year3	Year 4	Year 5	Total
Salaries and Wages	17	10,443	10,443	10,443	10,443	10,443	52,216
Supervisor	1	2,270	2,270	2,270	2,270	2,270	11,351
Casual labourers	15	7,784	7,784	7,784	7,784	7,784	38,919
Guard	1	389	389	389	389	389	1,946

8.2 Overhead Costs - Utilities, Office Expenses, etc (US$)

Item Description	year 1	year 2	year 3	year 4	year 5	Total
Vehicle hire	10,270	10,270	10,811	10,811	10,811	**52,973**
Stationery	405	405	405	405	405	**2,027**
Energy	2,568	2,568	2,568	2,568	2,568	**12,838**
Water*	378	378	378	378	378	**1,892**
Communication	243	243	243	243	243	**1,216**
Depreciation	4,427	3,649	3,015	5,469	4,576	**21,135**
Total	**18,292**	**17,514**	**17,420**	**19,874**	**18,981**	**92,081**

9.0 5-YearProfitability Analysis Table

Activity	BL	Year 1	Year 2	Year3	Year 4	Year 5	Total
Revenue		162,162	162,162	189,189	189,189	189,189	891,892
silage		162,162	162,162	189,189	189,189	189,189	891,892
Cost of Goods Sold		121,622	**121,622**	**141,892**	**141,892**	**141,892**	668,919
	-	40,541	40,541	47,297	47,297	47,297	222,973
Personnel and Labour Costs	17	10,443	10,443	10,443	10,443	10,443	52,216
Building repairs & maint'nce(4% of cost)		259	259	259	259	259	1,297
Furnishing Repairs & Maint.(10% of cost)	0	41	41	41	41	41	203
Audit fees		270	270	270	270	270	1,081
Transport and fuel		10,270	10,270	10,270	10,270	10,270	41,081
Stationery		405	405	405	405	405	1,622
Energy		2,568	2,568	2,568	2,568	2,568	10,270
Water		378	378	378	378	378	1,514
Communication		243	243	243	243	243	973
Depreciation Expenses		4,427	3,649	3,015	5,469	4,576	21,135
Total Operating Expenses		**29,305**	**28,528**	**27,893**	**30,347**	**29,454**	**145,527**
Net Profit(Loss) before Interest and Tax		11,235	12,013	19,404	16,950	17,843	77,446
Net Profit/(Loss) before Tax		11,235	12,013	19,404	16,950	17,843	77,446
Taxation(30%)	0	3,371	3,604	5,821	5,085	5,353	23,234
Net Profit/(Loss) After Tax		7,865	8,409	13,583	11,865	12,490	54,212
Cummulative Net Profit(Loss) After Tax		7,865	16,274	29,857	41,722	54,212	54,212
Average return on investment				25%			

11.0 Equipment and Machinery Suppliers

The supplies of tools and equipment used in the production of silage and Hey some are manufactured in Katwe from Musa Body Technical workshop, or imported from China and Asian countries.

12.0. Government Facilities and Incentives Available

The government of Uganda has reduced the tax rates on imports of Agro-processing equipment as a way of encouraging value addition on the locally produced agricultural products and also no tax on goods produced locally for export.

The challenge of this business is the need for a lot land to sustain the business and also it is labour intensive.

2.1.21 Natural Liquid Fertilizers

2.0 Introduction

Natural liquid fertilizers are largely or entirely composed of organic material from plants or animals that have gone through the engineering process, and are used to supply organic material to improve the physical, chemical, and biological composition of soil. Liquid fertiliser is commonly used on its own or as a supplement to base fertiliser in farming. It is made by the use of extracted organic materials and other natural products. Mainly it is used in the organic food production as a basic nutrient suppliers require for plants growth.

Uganda's economy is dominated by the agricultural sector and any investment such as production of natural liquid fertilizers can be a very viable investment. In addition, there is virtually market demand increase day by day due to increase demand of organic food in Uganda and foreign markets. Most plants in the country are engaged in the manufacturing of solid bio fertilizer. This business idea provides a unique opportunity to tap a gradually increasing demand in a market where natural liquid fertilizers are still being imported.

3.0 Production capacity, technology and processes description

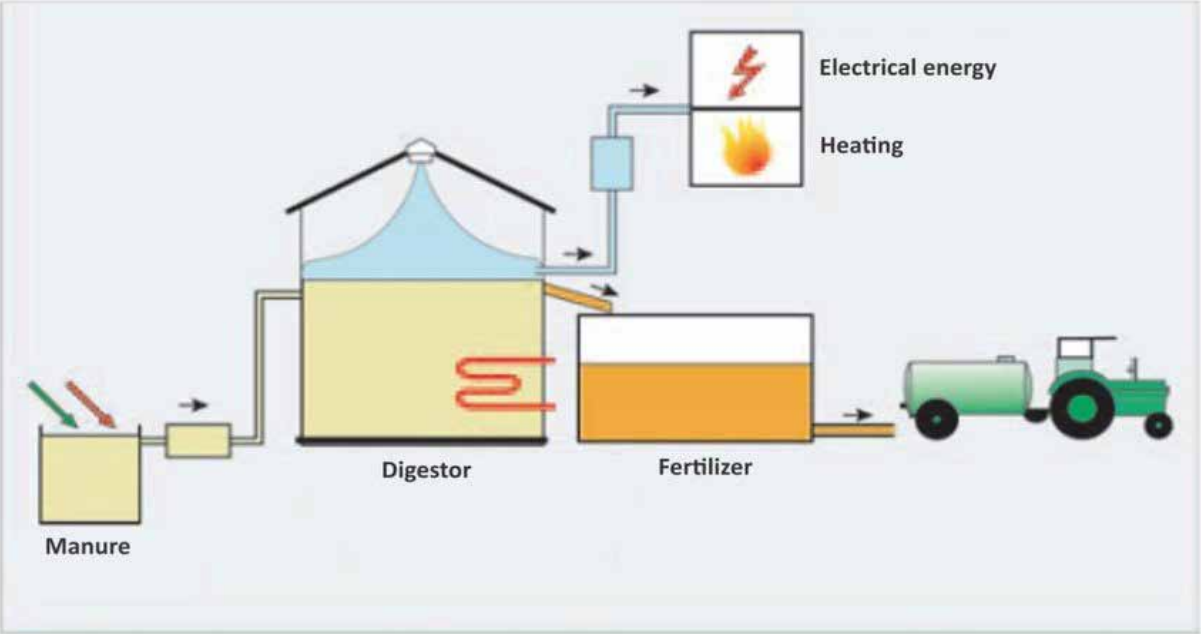
This plant has a minimum capacity of producing 11,000 liters of natural liquid fertilizers for the first year of operation. The production plant consists of fermenters, storage tanks, piping & instrumentation, filling equipment. In addition equipment include a platform weighing machine are also required.

Projected Scale of Operations

Year	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Market Share	20%	20%	22%	25%	27%
Litres per year	11,000	11,000	12,100	13,750	14,850
Rate Per Litre (US$)	6.6	7.4	7.9	7.9	7.9
No. of business days per year	312	312	312	312	312

Due to the long overlapping fermentation periods, output is more precisely projected annually.

Process Description



1. The process of liquid fertilizer production starts with adding the dry cow dung and green matter into water in the fermentation tanks. This is the first fermentation stage and it takes 10 days, with the solution blended daily.
2. Bio-degradable soil, which increases the varieties of useful microorganisms that are responsible for the decomposition, and ash, which brings minerals and potassium to the fertilizer which regulates its pH and also acts a natural preservative, are then added to the solution. This second fermentation stage also takes 10 days.
3. The liquid fertilizer is then drained using pipes to storage tanks, and then through to a filling machine as per capacity.
4. Packing is then carried out under aseptic conditions, using an automatic aseptic filling machine. Pre-sterilized bottles/jerry cans are used for filling. Maintenance of aseptic conditions during filling ensures highest possible shelf life.

4.0 Minimum scale of investment, capital investment requirements and equipment

This kind of investment is medium in nature, costing about USD 37,687 to start. The production plant consists of fermenters, storage tanks, piping & instrumentation, filling equipment. A backup generator may be required to ensure uninterrupted processing due to power black outs.

		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	**Fixed Assets**			**27,450**	**0**	**0**	**14,350**	**0**	**0**	**41,800**
1.1	Processing Plant			17,050	0		**4,800**	**0**	**0**	**21,850**
1.1.1	Fermenting Tank	6,500	1	6,500						6,500
1.1.2	Storage Tank	5,000	1	5,000						5,000
1.1.3	Pipe Fittings	1,300	set	1,300			1,300			2,600
1.1.4	Filling machine	3,500	2	3,500			3,500			7,000
1.1.5	Generator	750	1	750						750
1.2	Office Requirements			1,200	0	0	350	0	0	1,550
1.2.1	Computers	300	2	350		0	350	0	0	**700**
1.2.2	Printer & Fax Machine	150	1	150						150
1.2.3	Tables & Chairs	550		550						550
1.2.4	Filing Cabin	150	1	150						**150**
1.3	**Vehicles**			9,200			9,200			18,400
	Delivery Truck	10,000	2	9,200			9,200			18,400

2	**Preliminary Expenses**			3,000	0	0	0	0	0	3,000
3	**Working Capital**			7,237			0	0		7,237
Total Investment				**37,687**	**0**	**0**	**14,350**	**0**	**0**	**44,800**

5.0 Raw materials requirements

Natural liquid fertilizer is very economical in raw materials. The ingredients used are: manure of any animal species (cow dung for this profile), green matter (green grass or green leaves), living earth (loose top soil that increases the varieties of useful microorganisms which are responsible for the decomposition), and ash (which brings minerals and potassium to the fertilizer which regulates its pH), and water. All the raw materials required for the manufacturing of this product are available locally.

Material	Unit	Unit Price	Quantity	Total (USD)
(a) Manure (Cow dung)	Kgs	0.18	10,800	13,089
(b) Green Matter (Grass)	Kgs	0.13	6,000	5,194
(c) Living Earth (Top Soil)	Kgs	0.03	6,000	1,039
(e) Water	Litres	0.13	18,000	15,582

6.0 Market Analysis

Today, with the increase in demand for pollution-free agricultural products and green products, the term 'organic' has become an irresistible trend of modern agriculture and in the global fertilizer market. Swift development of organic agriculture coupled with growing demand for organic food is expected to increase the demand for organic fertilizer. Uganda's economy is dominated by the agricultural sector and any investment such as production of natural liquid fertilizers can be a very viable investment. According to National Organic Agricultural Movement of Uganda (NAGOMU), the number of certified organic farmers has grown more than 10 times from 15,000 in 2003 to now over 190,000, which offers a wide market for this organic liquid fertilizer. Due to the lack of local production, most of the liquid fertilizers used are imported. It is also worth noting that most locally produced fertilizers are solid and inorganic, therefore this business idea provides a unique opportunity to tap a gradually increasing demand in a market where natural liquid fertilizers are still being imported. Liquid fertilizers have the characteristic of rapid absorbability by soil, which in turn ensures that nutrients reach crops faster than other forms of fertilizers. Therefore, the application of liquid organic fertilizer is expected to become popular among farmers in the coming years, thereby, opening new opportunities for the organic fertilizer business.

Marketing Strategy

Uganda Bureau of Statistics (UBOS) estimates that about 80% of fertilizers used in Uganda are actually imported; with 60% of those accounting for solid fertilizers and 40% liquid fertilizers. This business idea intends to use the import-substitution market strategy to tap the 40% market and replace up to 60% (35,750 Liters per year) of these imported liquid fertilizers. In addition, marketing would be done through; engaging in road show in targeted farming communities from time to time to sell the fertilizer, advertising the fertilizer in newspapers, TV and radio stations, use of the internet to promote the fertilizer brands, and engage in direct marketing and sales.

7.0 Project Costs (fixed capital and working capital) and revenues

Direct Production/Purchase costs

	Year 1	Year 2	Year 3	Year 4	Year 5
Purchases	34,903	38,393	42,233	46,456	51,102
(a) Manure (Cow dung)	13,089	14,398	15,837	17,421	19,163
(b) Green Matter (Grass)	5,194	5,713	6,285	6,913	7,604
(c) Living Earth (Top Soil)	1,039	1,143	1,257	1,383	1,521
(e) Water	15,582	17,140	18,854	20,739	22,813

Direct costs include: materials, supplies and other costs that directly go into production of the Liquid Fertilizer.

Personnel and Labour Costs

	Year1	Year 2	Year3	Year 4	Year 5	Total
Salaries and Wages estimate	10,579	10,579	10,579	13,737	13,737	59,211
Manager	3,158	3,158	3,158	3,158	3,158	15,789
Accounts Officer	2,211	2,211	2,211	2,211	2,211	11,053
Production Supervisor	1,579	1,579	1,579	1,579	1,579	7,895
Marketing officer	3,158	3,158	3,158	6,316	6,316	22,105
Guard	474	474	474	474	474	2,368

Overhead Costs

Item Description	year 1	year 2	year 3	year 4	year 5	Total
Transport and fuel	1,263	1,263	1,263	2,526	2,526	**8,842**
Stationery	158	158	158	158	158	789
Electricity (Power)	474	474	474	947	947	**3,316**
Advertising costs	316	316	316	316	316	**1,579**
Insurance	947	947	947	947	947	**4,737**
Packaging material (1 litre Plastic Bottle)	289	289	318	362	391	**1,650**
Facility Rent	3,158	3,158	3,158	3,158	3,158	**15,789**
Fuel & Generator maintenance.	947	947	947	1,895	1,895	**6,632**
Total	**7,553**	**7,553**	**7,582**	**10,309**	**10,338**	**43,334**

Unit Pricing and Costing

Product	Unit	Unit Price	Gross Margin	Unit Cost
Fertilizers	Litres	6.6	40.0%	3.9

Revenue Projections

Year	Year 1	Year 2	Year3	Year 4	Year 5
Projected Market Share	2%	2%	2%	3%	3%
Litres per year	11,000	11,000	12,100	13,750	14,850
Rate Per Litre (US$)	6.6	7.4	7.9	7.9	7.9
No. of business days per year	312	312	312	312	312
Estimated Revenue - Fertilizer sales	72,368	81,053	95,526	108,553	117,237

The market share is based on the annual demand and production of 550,000 liters.

8.0 Sources of supply of machinery and equipment and raw materials

All the raw materials required for the manufacturing of this product are available locally. The basic technology (machinery) is also available at;

- China North Machines located on plot 24, Jinja road
- China Huangpai Machines Uganda located at Lugogo UMA Show ground

9.0 Government facilities and incentives available

The government of Uganda has a renewed interest in organic farming as seen in its 100 acre model organic farm in Mpigi District, run by the Ministry of Gender, Labour, and Social Development in collaboration with United Nations Development Programme (UNDP). In addition, government launched a National Fertilizer Policy in 2018 in its aim to attain Sustainable Development Goals 1 and 2 of ending extreme poverty and attainment of zero hunger by 2030, and has programs such as Operation Wealth Creation are aimed at improving agricultural production in the country & therefore such projects are being supported by the government

10.0 Profitability

Projected Profit and Loss Account (In US $)

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue	72,368	81,053	95,526	108,553	117,237	474,737
Fertilizer	72,368	81,053	95,526	108,553	117,237	474,737
Cost of Goods Sold	34,903	38,393	42,233	46,456	51,102	213,087
Gross Profit	37,465	42,659	53,294	62,097	66,135	261,650

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Operating Expenses						
Personnel and Labour Costs	10,579	10,579	10,579	13,737	13,737	59,211
Furnishing Repairs & Maint.(10% of cost)	105	92	115	101	88	502
Transport and fuel	1,263	1,263	1,263	2,526	2,526	8,842
Stationery	158	158	158	158	158	789
Electricity (Power)	474	474	474	947	947	3,316
Advertising costs	316	316	316	316	316	1,579
Insurance	947	947	947	947	947	4,737
Packaging material (1 litre Plastic Bottles)	2,895	2,895	3,184	3,618	3,908	16,500
Facility Rent	3,158	3,158	3,158	3,158	3,158	15,789
Fuel & Generator maintenance.	947	947	947	1,895	1,895	6,632
Depreciation Expenses	3,501	3,094	2,735	3,981	3,529	16,840
Total Operating Expenses	**24,343**	**23,923**	**23,876**	**31,385**	**31,209**	**134,737**
Net Profit(Loss) before Tax	13,122	18,736	29,417	30,712	34,926	126,913
Taxation (30%)	3,937	5,621	8,825	9,214	10,478	38,074
Net Profit/(Loss) After Tax	9,186	13,116	20,592	21,498	24,448	88,839
Cumulative Net Profit(Loss) After Tax	9,186	22,301	42,893	64,391	88,839	88,839
Annual Return on Investment(After Tax)		55%	58%	41%	55%	

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2.1.22 Making Chili Sauce

2.0 Introduction

Chilli sauce is hot in taste and eaten either as raw or cooked for its hot flavor. Chilli or Pepper is used to make a variety of sauces and chilli pickles. Processed chilli products have wide applications in house hold consumption, food processing industry, snacks foods, and a high growing market in hotels, restaurants and fast food joints. This business idea falls in the Processed Food Industry which is highly competitive in Uganda, and therefore requires quickly adapting to changing consumer tastes and preferences in order for your product to remain relevant and sought after.

3.0 Production capacity, technology and processes description

The rated plant capacity is 100kgs/day, and therefore this is capable of producing the required 61kgs/day for the first year for this idea to be economically viable. This translates into 1.6 tons per month and 19.2 tons for the first year. The sales are projected to grow at 10% from the first year through to 40% by the 5th year with consistent quality and creative marketing.

Table 1: Projected Scale of Operations

Year	Year 1	Year 2	Year 3	Year 4	Year 5
Projected Sales Growth		10%	12%	15%	20%
Tons per Month	1.6	1.8	2.0	2.3	2.7
Tons per Year	19.2	21.1	23.7	27.2	32.6
Price Per Kg (US$)	5	5	5	6	6
No. of business days per year	312	312	312	312	312

Technology

The essential tools and equipment required for chilli manufacturing include peeling machine, slicing machine, dryer, packaging machine, and laboratory equipment. A generator may be required in case of power cuts that may disrupt production.

Process Description

Chilli sauce production begins with washing and sorting, where chillies received are immersed in water and then manually sorted on a roller type system. The process of mashing (blending) and pulp refining then follows. This is done by the same machine which then feeds the refined pulp to a concentration tank for paste concentration. Vinegar, water, and salt are added at this stage and the solution is stored for concentration. The chilli sauce is then sterilized (for preservation and long shelf life) using a tube

sterilizer machine and then packed in aseptic bottles and jugs by the filling machine.

4.0 Minimum scale of investment, capital investment requirements and equipment

The project would be operated locally on **medium scale**, i.e. producing at least **61kg/day** of processed chilli per day (19.2 kg/month). The total fixed and working capital investment required to start this project is estimated at **USD 27,852.** This could be injected as equity.

Table 2: Investment Programme (In US$)

Capital Investment Cost		Unit Cost	Qty	Year 0	Year1	Year2	Year3	Year4	Year5	Total
1	**Fixed Assets**			22,491	**0**	**300**	**0**	**0**	**0**	**41,062**
1.1	Processing Plant			**12,130**	**0**	**0**	**0**	**0**	**0**	**12,130**
1.1.1	Peeling Machine	3,000	1	3,000						3,000
1.1.2	Slicing Machine	1,600	1	1,600						1,600
1.1.3	Dryer	1,580	1	1,580						1,580
1.1.4	Grinding Machine	1,000	1	1,000						1,000
1.1.5	Packaging Machine	3,000	1	3,000						3,000
1.1.6	Laboratory Equipment	1,200	1	1200						1200
1.1.7	Generator	750	1	750						750
1.2	**Office Requirements**			1,150	0	300	0	0	0	1,450
1.2.1	Computers	300	2	300		300		0	0	**600**
1.2.2	Printer & Fax Machine	150	1	150						150
1.2.3	Tables & Chairs	550	Set	550						550
1.2.4	Filing Cabins	150	1	150						**150**
1.3	**Vehicles**			9,211						9,211
1.3.1	Pick-up Truck	9,211		9,211						9,211
2	**Preliminary Expenses**			561	0	0	0	0	0	561
3	**Working Capital**			4,800			0	0		4,800
Total Investment				**27,852**	**0**	**300**	**0**	**0**	**0**	**46,423**

5.0 Raw materials requirements

The required raw materials are chilies, salt, vinegar, preservatives, spices and water.

Table 3: Breakdown of materials (Year 1)

Material	Unit	Unit Price	Quantity	Total (USD)
(a) Chilli Pepper	Tons	526.32	8.0	50,526
(b) Vinegar	Litres	1.05	204.8	2,587
(c) Water	Litres	0.01	2,000.0	316
(e) Preservatives		0.20	20.0	48
(f) Salt & Spices	Kgs	0.53	40.0	253

6.0 Market Analysis

This business idea falls in the Processed Food Industry which is highly competitive in Uganda, with the main markets being whole sale shops, super markets, groceries and hotels. The industry quickly adapts to changing consumer tastes and preferences. Regardless of this fierce competition, market growth continues in that more and more families purchase ready-made foods, chilli sauce inclusive, than make it at home.

Market Strategy

Whereas there are many chilli sauce makers in Uganda, most of their recipes include oil. This business idea aims to target a niche of customers by addressing their health concerns by excluding oil and sugar from its product. The target markets include middle income, two- earner households; young urban professionals and single retired middle to upper income persons. These groups want well-prepared and seasoned food that can be quickly accessed, and are health-conscious. Other intended strategies include always providing a quality product on time at a mid-level price. In addition, this business idea intends to differentiate its chilli sauce by making it with strictly organic ingredients, different from its competitors. The idea intends to penetrate the market and increase its market share to 20% over the 5 years-period.

7..0 Project Costs

7.1 Purchases of Raw Materials

	Year1	Year 2	Year3	Year 4	Year 5
Purchases	53,477	58,825	65,884	75,766	90,920
(a) Chilli Pepper	50,526	55,579	62,248	71,586	85,903
(b) Vinegar	2,587	2,846	3,187	3,665	4,398
(c) Water	316	347	389	447	537
(e) Preservatives	48	53	59	68	82
(f) Salt & Spices	253	278	311	358	430

7.2 Personnel and Labour Costs

	Yearly Cost	Year1	Year 2	Year3	Year 4	Year 5	Total
Salaries and Wages estimate	11	11,526	11,526	11,526	14,684	14,684	63,947
Production Manager	1	3,158	3,158	3,158	3,158	3,158	15,789
Accounts Officer / Administrative Staff	1	2,211	2,211	2,211	2,211	2,211	11,053
Production Supervisor / Chemist	1	1,579	1,579	1,579	1,579	1,579	7,895
Marketing officer*	1	1,579	1,579	1,579	3,158	3,158	11,053
Packers (Semi-skilled labour)*	5	1,579	1,579	1,579	3,158	3,158	11,053
Van Driver	1	947	947	947	947	947	4,737
Guard	1	474	474	474	474	474	2,368

7.3 Overhead Costs

Item Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Transport and fuel*	1,263	1,263	1,263	2,526	2,526	8,842
Stationery	158	158	158	158	158	**789**
Electricity (Power)*	474	474	474	947	947	**3,316**
Advertising costs	316	316	316	316	316	**1,579**
Facility Rent	3,158	3,158	3,158	3,158	3,158	**15,789**
Fuel & Generator maintenance.	947	947	947	1,895	1,895	**6,632**
Total	**6,316**	**6,316**	**6,316**	**9,000**	**9,000**	**36,947**

7.4 Project Product Costs & Price Structure in US$

Item	Unit	Unit Price	Gross Margin	Unit Cost
Chilli Sauce	Kg	5.0	32.0%	3.4

8.0 5-Year Projected Revenue Streams

Year	Year1	Year 2	Year3	Year 4	Year 5
Projected Sales Growth		10%	12%	15%	20%
Tonnes per Month	1.6	1.8	2.0	2.3	2.7
Tonnes per Year	19.2	21.1	23.7	27.2	32.6
Price Per Kg (US$)	5.00	5.00	5.00	6.00	6.00
No. of business days per year	312	312	312	312	312
Estimated Revenue From Chilli Sauce	96,000	105,600	118,272	163,215	195,858

9.0 Sources of Supply of Machinery and equipment and raw materials

The essential tools and equipments required for chilli manufacturing includea peeling machine, slicing machine, dryer, packaging machine, and laboratory equipment. These are all available at China Huangpai Food Machines Uganda located at Lugogo UMA Show ground. Raw materials will be supplied from chilli pepper growing areas of Uganda especially in the North and Central regions and local markets.

10.0 Government facilities and incentives available

The following incentives are available from Government in her bid to promote Agriculture and prosperity for all programs. These include: Capital/Input, Tax exemptions, Land, Basic infrastructure, Grants and long term Loans at relatively low interest rates and liberalized market. Private Sector Foundation of Uganda has finances to support this type of venture.

11.0 5-Year Projected Profitability Analysis

Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Revenue	96,000	105,600	118,272	163,215	195,858	678,946
Chilli Sauce	96,000	105,600	118,272	163,215	195,858	678,946
Cost of Goods Sold	53,477	58,825	65,884	75,766	90,920	344,871
Gross Profit	42,523	46,775	52,388	87,449	104,939	334,074
Operating Expenses						
Personnel and Labour Costs	11,526	11,526	11,526	14,684	14,684	63,947
Business Overheads and Admin. Costs	6,546	6,596	6,602	9,320	10,063	39,127
Depreciation Expenses	2,955	2,620	2,362	2,095	1,859	11,891
Total Operating Expenses	**21,027**	**20,743**	**20,490**	**26,099**	**26,606**	**114,966**
Net Profit(Loss) before Tax	21,496	26,033	31,898	61,350	78,333	219,109
Taxation (30%)	6,449	7,810	9,569	18,405	23,500	65,733
Net Profit/(Loss) After Tax	15,047	18,223	22,329	42,945	54,833	153,376
Cumulative Net Profit(Loss) After Tax	15,047	33,270	55,599	98,543	153,376	153,376
Annual Return on Investment(After Tax)		86%	119%	161%	118%	

2.1.23 Banana Flour Processing

1.0 Introduction

Bananas are one of the primary agricultural commodities that present wide national utility as a staple food; hence a source of food security and agri-business value and also opportunities for diversified value addition in Uganda. This is not only because of their potential of carbohydrates, nutrients, minerals and fibre content, but also because of their high productivity per hectare which ranges from 25 to 40 tons. Bananas can be processed and preserved to various forms of processed products such as banana juice, banana wine, banana chips, and banana sauce. A new product with a potential commercial value is the banana flour made from fresh unripe or ripe bananas.This business idea focuses on flour from unripe bananas as it is richer in dietary fiber, resistant starch, and aids in colon health. In addition, there is growing demand for banana flour as it is increasingly becoming a cheaper alternative for wheat flour in Uganda

2.0 Production Capacity, Technology and Processes Description

The plant capacity for this business idea is 100kg per day (8 hours), which translates into 2.6 tons per month and 31.2 tons for the first year of operation. A half kilo of this product is currently sold at US$ 2.5. The technology involved can be locally accessed within Uganda, which makes it affordable.

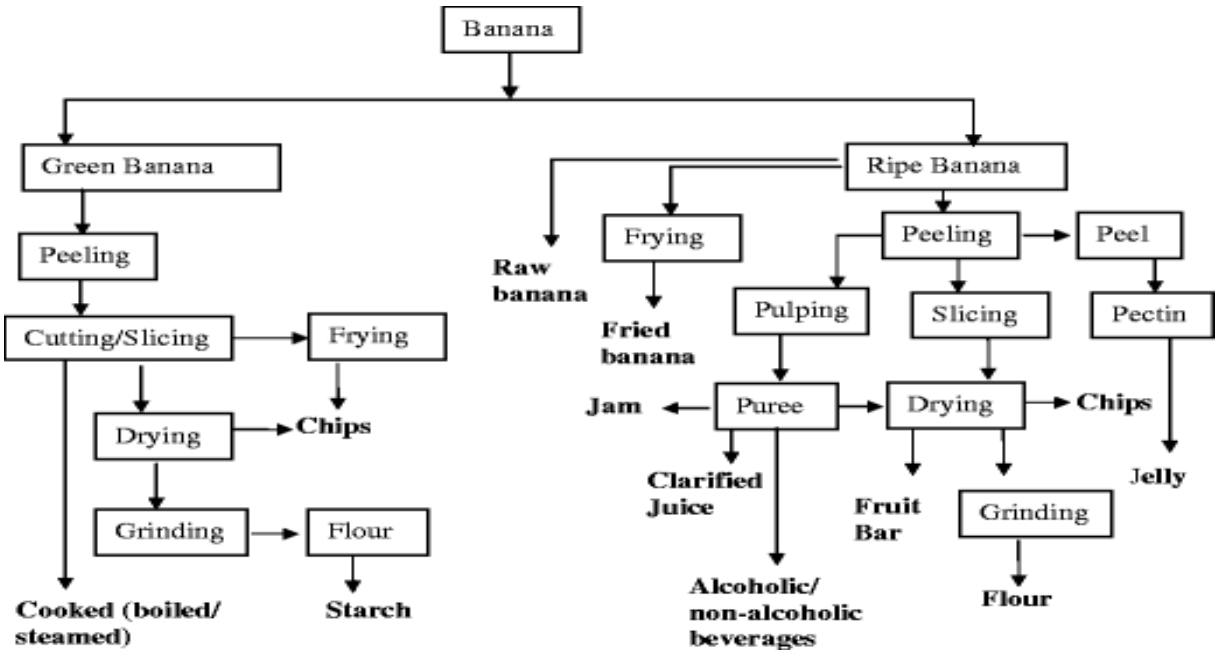
Table 1: Projected Scale of Operations

Year	Year1	Year 2	Year3	Year 4	Year 5
Projected Sales Growth		10%	20%	30%	40%
Tons per Month	2.6	2.9	3.4	4.5	6.2
Tons per Year	31.2	34.3	41.2	53.5	75.0
Price Per Kg (US$)	5	5	5	6	6
Annual Projected Revenue					
No. of business days per year	312	312	312	312	312

The 31.2 tons projected output for the first year is based on the current annual demand of wheat flour of 460M tons (approximately just about 0.001% of the market share)

Process description

Banana flour processing flow chart



The process begins with harvesting the banana bunches from the banana garden, dismantling the bunches into pieces and transferring them into a storage drum where they are washed and disinfected. They are then steamed in a boiler for about 10 minutes to decrease the sticky sap, improve the flour colour and also facilitate the peeling process. The bananas are then peeled, using a peeling machine, sliced into small pieces and soaked in a salt solution for about 30 minutes and drained after. The soaking also prevents enzymatic browning of the flour. The drained banana chips are then dried in a dryer at 60 degrees and then milled into flour. The flour is finally sifted and packed and stored in a cool dry place.

3.0 Minimum scale of investment, capital investment requirements and equipment

This investment is small-scale in nature, costing about USD 24,609 in the first year, with all the money injected as equity.

Investment Programme

Capital Items		Unit Cost	Qty	Yr 0	Yr 1	Yr 2	Yr3	Yr 4	Yr 5	Total
1	Fixed Assets			**13,645**	**0**	**300**	**7,180**	**0**	**0**	**36,764**
1.1	Processing Plant			**4,600**	**0**	**0**	**7,180**	**0**	**0**	**11,780**
1.1.1	Peeling Machine	1,500	2	3,000			3,000			**6,000**
1.1.2	Slicing Machine	800	2	1,600			1,600			3,200
1.1.3	Dryer	790	2	1,580			1,580			**1,580**
1.1.4	Grinding Machine	500	2	1,000			1,000			**1,000**
1.1.5	Packaging Machine	3,000	1	3,000						**3,000**
1.2	Office Requirements			1,150	0	300	**0**	**0**	**0**	**17,089**
1.2.1	Office &Computer equipment		L/S	450		300		0	0	**600**
1.2.3	Furniture &Gen Off. Equip.			700						**700**
1.3	**Vehicles**			7,895						7,895
2	**Preliminary Expenses**			1,364	0	0	0	0	0	1,364
3	**Working Capital**			9,600			0	0		9,600
Total Investment				**24,609**	**0**	**300**	**7,180**	**0**	**0**	**47,729**

4.0 Raw materials requirements

Bananas are the main raw material and are readily available in Uganda. Since these have 2 peak seasons, stocking and production should be strategically aligned to avoid hiked prices during the off-peak seasons. Supporting materials in addition to raw materials of bananas is sodium (salt solution)

Table 3: Breakdown of materials (Year 1)

Material	Unit	Unit Price	Quantity	Total (USD)
(a) Green bananas	Tons	263.16	20.8	65,684
(b) Sodium sulphite	Tons	500.00	0.0208	125

5.0 Market Analysis

There is a growing demand for banana flour as it is increasingly becoming a cheaper alternative for wheat flour in Uganda. This is due to its wide application in food, animal feeds and some cosmetics and in the pharmaceutical industry. It is also used as a mixture material for baking various products like cakes, breads and cookies.

Marketing Strategy

The market strategy for this business idea would be import-substitution for wheat flour. At full processing capacity, banana flour can supplement the value of wheat in the economy (currently at a demand of 460 metric tons per annum) and in domestic use for functions such as baking and breakfast dishes. In practical terms, this means Uganda could import less wheat since it is not grown in the country, and replace its uses with matooke flour. The idea intends to grow its sales from 10% to 40% over the first 5 years of operations, and overtaking a market share of up to 20% of the wheat market. This will be achieved mainly through aggressive advertising.

6.0 Project Costs (fixed capital and working capital) and revenues

Direct Production/Purchase costs

	Year 1	Year 2	Year 3	Year 4	Year 5
Purchases	65,809	72,377	86,828	112,839	157,925
(a) Green bananas	65,684	72,253	86,703	112,714	157,800
(b) Sodium sulphite solution	125	125	125	125	125

Personnel and Labour Costs

	Year1	Year 2	Year3	Year 4	Year 5	Total
Salaries and Wages estimate	9,947	9,947	9,947	11,526	11,526	52,895
Transport and fuel	1,263	1,263	1,263	2,526	2,526	8,842
General Office &Admin. Expenses	1,895	1,895	1,895	3,316	3,316	12,316
Facility Rent	1,579	1,579	1,579	1,579	1,579	7,895
Total	**14,684**	**14,684**	**14,684**	**18,947**	**18,947**	**81,948**

Unit pricing and cost structure

Product	Unit	Unit Price	Gross Margin	Unit Cost
Banana Flour	Kg	5.0	32.0%	3.4

Revenue Projections

Year	Year1	Year 2	Year3	Year 4	Year 5
Projected Sales Growth		10%	20%	30%	40%
Tonnes per Month	1.6	1.8	2.1	2.7	3.8
Tonnes per Year	19.2	21.1	25.3	32.9	46.1
Price Per Kg (US$)	5.00	5.00	5.00	5.00	5.00
No. of business days per year	312	312	312	312	312
Estimated Revenue From Banana Flour	96,000	105,600	126,720	164,736	230,630

7.0 Sources of Supply of Machinery and equipment and raw materials

Equipment can be got from China Huangpai Food Machines Uganda located at Lugogo UMA Show ground, or fabricated locally in Katwe. Bananas areeasily available in the local market all over the country.

8.0 Government facilities and incentives available (1 paragraph)

Generally, food products are VAT exempt and hence tax minimized. In addition, the President of Uganda commissioned the Presidential Initiative on Banana Industrial Development (PIBID) which has carried out extensive research and development on the transformation of matooke into food products for

international market.

9.0 Profitability for a 3-year period (summary financial analysis tables)

Activity	B/Line	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		96,000	105,600	126,720	164,736	230,630	723,686
Banana Flour		96,000	105,600	126,720	164,736	230,630	723,686
Cost of Goods Sold		65,809	72,377	86,828	112,839	157,925	495,778
Gross Profit		30,191	33,223	39,892	51,897	72,706	227,909
Operating Expenses							
Personnel and Labour Costs		9,947	9,947	9,947	11,526	11,526	52,895
Office administration and expenses		5,072	5,125	5,107	7,861	13,146	36,311
Depreciation Expenses		1,645	1,462	2,056	2,733	2,424	10,320
Total Operational expenses		16,664	16,534	17,110	22,120	27,096	99,526
Net Profit(Loss) before Tax		13,527	16,688	22,782	29,777	45,609	128,383
Taxation (30%)	30%	4,058	5,007	6,835	8,933	13,683	38,515
Net Profit/(Loss) After Tax		9,469	11,682	15,948	20,844	31,926	89,868
Cumulative Net Profit(Loss) After Tax		9,469	21,151	37,098	57,942	89,868	89,868
Annual Return on Investment(After Tax)			60%	65%	70%	67%	

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Cash Flows	6,055	61,994	137,741	239,545	422,276	574,283
Discount Factor	20%					
NPV	413,033					

10.0 References

- https://www.alibaba.com/showroom/banana-flour-machines
- https://www.bananaprocess.com/automatic-banana-flour-grinder-machine
- https://www.transparencymarketresearch.com/banana-flour-market.html

2.1.24 Potato Crisps Making

2.0 Introduction

Potato crisps are thin slices of potato that have been deep fried or baked until crunchy. They are commonly served as a snack, side dish, or appetizer. The basic chips are cooked and salted; additional varieties are manufactured using various flavorings and ingredients including herbs, spices, cheeses, other natural flavors, artificial flavors, and additives.

Irish production areas in Uganda

Irish potato is largely produced in the highland regions of Uganda in the following districts: Kabale, Kisoro, Mbale, Kapchorwa

Varieties of Irish potatoes in Uganda

The farmers have access to a wide range of varieties both local and improved. The most common improved varieties the following:

- Nakpot which is the most recent release from the research stations.

How to Make Sweet Potato Chips

- Preheat oven to 230 C (450 F). Line baking sheet with parchment paper. Cut the potatoes in 1/8-inch thick round slices.
- In a pot of boiling water cook, the potato slices for 3-5 minute. Drain well and combine with oil, salt, pepper and spices (garlic, oregano, basil, etc.) in a large bowl.
- Place potato slices on prepared baking sheet in one layer. Bake for about 15 minutes until crisp and golden brown. Gently remove the chips and place on a cooling rack or parchment paper; let them cool for few minutes and they are ready to serve.

3.0 Production Capacity, Technology and processes Description

The production capacity the machine produces between 300 – 600kg crisps per day but

Year	Year 1	Year 2	Year3	Year 4	Year 5	Total
Estimated demand (kgs)	30,000	30,000	36,000	39,600	39,600	175,200
Average price per product	4.5	4.5	4.5	4.5	4.5	5
No. of business days per year	300	300	300	300	300	1,500

4.0 Scale of Investment, Capital Investment

Financing Source		Structure	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Equity	1	96,652	96,652	0	0	0	0	96,652
Total Capital			**97,252**	**96,652**	**0**	**0**	**0**	**0**	**96,652**

5.0 Raw Materials

Irish potatoes, cooking oil, salt, pepper and spices (garlic, oregano, basil, etc.) The basic chips are cooked and salted; additional varieties are manufactured using various flavorings and ingredients including herbs, spices, cheeses, other natural flavors, artificial flavors, and additives.

6.0 Market Analysis

The market of crisps in Uganda, there is market in Uganda mainly children and campus girls, and all supermarkets in the country, the prices to super market 50gms goes for 700/= and 100gms for 1700/= and supermarkets sells it at 1000/= for 50gms and 2000/= for 100gms.

7.0 5-YearProject Investment Programme

Capital Investment		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	**Fixed Assets**			**65,740**	**23,740**	**50,000**	**800**	**0**	**0**	**74,540**
1.1	Land	**8,000**	**1**	**0**	**8000**	**0**	**0**	**0**	**0**	**8,000**
1.1.1	Rent of Site & Ware House	0	0	0			0			0
1.1.2	Rent - Office	0	0	0						**0**
1.2	Building works and development			**50,000**	**0**	**50,000**	**0**	**0**	**0**	**50,000**
	Construction off office block	20,000	1	20,000	0	20,000				20,000
	Construction of processing shelter	30,000	1	30,000		30,000	0			**30,000**
1.3	Processing Facilities and Equipment			4,740	4,740	**0**	**800**	**0**	**0**	**5,540**
	Syrup tank	800	1	800	800					800
	Heating vessels	1,000	1	1,000	1,000					1,000
	Nylon net	800	1	800	800		800			1,600
	Cross flow drier	1,000	1	1,000	1,000		0			1,000
	Impulse sealer	140	1	140	140					140
	Plastic vats	1,000	1	1,000	1,000					**1,000**
1.4	Furniture, Equipment & furnishings			**6,000**	**6,000**	**0**	**0**	**0**	**0**	**6,000**
	Furniture, Equipment & furnishings	6,000	1	6,000	6,000		0			**6,000**
1.5	Vehicles	**5000**	**1**	**5,000**	5,000		0			5,000
2	**Preliminary Expenses**			1,200	1,200	0	0	0	0	1,200
3	Working Capital			20,912	20,912		0	0		20,912
	TOTAL INVESTMENT			87,852	45,852	50,000	800	0	0	96,652

8.0 Sales/ Revenue Projections

Year	Year1	Year 2	Year3	Year 4	Year 5	Total
potatoes Crisps						
Estimated sales per day	**100**	**100**	**120**	**132**	**132**	584
Unit prices	3.14	3.14	3.14	3.14	3.14	3.14
No. of business days per year	300	300	300	300	300	1,500
Estimated Revenue	94,234	94,234	113,081	124,389	124,389	550,328
Irish peelings						
Estimated sales per day	10	10	12	13	13	58

Unit prices	0.1	0.1	0.1	0.1	0.1	0
No. of business days per year	300	300	300	300	300	1,500
Estimated Revenue	300	300	360	396	396	1,752
Total Revenue Projection		94,534	113,441	124,785	124,785	457,546
Miscellaneous Income (000'U$)		4,000	6,000	8,000	8,000	26,000
Total Revenue		**98,534**	**119,441**	**132,785**	**132,785**	**483,546**

9.0 5-Year Profitability Analysis

Activity	Baseline	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		94,534	94,534	113,441	124,785	124,785	552,080
potatoes Crisps		94,234	94,234	113,081	124,389	124,389	550,328
irish peelings		300	300	360	396	396	1,752
Miscellaneous Income (000'U$)		-	-	-	-	-	-
Cost of Goods Sold		49,749	49,749	59,699	65,669	65,669	290,535
Gross Profit	0	44,785	44,785	53,742	59,116	59,116	261,545
Operating Expenses							
Personnel and Labour Costs	8	12,960	12,960	12,960	16,140	16,140	71,160
Building repairs & maint'nce(4% of cost)		4,000	4,000	4,000	4,000	4,000	20,000
Furnishing Repairs & Maint.(10% of cost)	10.0%	600	1,200	1,200	1,200	1,200	5,400
Audit fees		1,000	1,000	1,000	1,000	1,000	4,000
Transport and fuel		3,000	3,000	3,000	3,000	3,000	12,000
Stationery		500	500	500	500	500	2,000
Energy		3,000	3,000	3,000	3,000	3,000	12,000
Water		486	486	486	486	486	1,944
Internet		648	648	648	648	648	2,592
Communication		260	260	260	260	260	1,040
Depreciation Expenses		7,443	6,570	9,850	8,809	8,070	40,741
Total Operating Expenses		**33,897**	**33,624**	**36,904**	**39,043**	**38,304**	**181,771**
Net Profit(Loss) before Interest and Tax		**10,888**	**11,162**	**16,838**	**20,074**	**20,812**	**79,774**
Development Loan Interest Expense		0	0	0	0	0	0
Net Profit/(Loss) before Tax		10,888	11,162	16,838	20,074	20,812	79,774
Taxation(30%)	30%	**3,266**	**3,348**	**5,052**	**6,022**	**6,244**	**23,932**
Net Profit/(Loss) After Tax		7,622	7,813	11,787	14,052	14,569	55,842
Cummulative Net Profit(Loss) After Tax		7,622	15,435	27,222	41,273	55,842	55,842
		13%	10%	17%	23%	15%	

10.0 Equipment and Machinery Suppliers

- Agro Sokoni Limited, Plot 15/17 Nassar Road P.O .Box 22793 Kampala. Tel: 0414-257445
- Auto Sokoni Limited, Nkurumah Road, Kampala opposite Charm tower.

11.0 Government Facilities and Incentives Available

The government incentive on the business, exports are duty free.

12.0 References

- Fortune of Africa Uganda
- August 2013, Tom Mugenga, the proprietor of Kisoro Potato Processing Industries
- Agro Sokoni Limited, Plot 15/17 Nassar Road P.O .Box 22793 Kampala. Tel: 0414-257445
- 1999-2019 Alibaba.com Hong Kong Limited and licensors.

2.2 TOURISM AND HOSPITALITY

2.2.1 Establishment and Management of a Camp Site

1.0 Introduction

The business idea of a campsite is premised to provide outdoor recreational services to all categories of individuals who prefer to spend a holiday or leisure time in a refreshing outdoor environment with no permanent shelters rather tents.A campground consists typically of open pieces of ground where a camper can pitch a tent or park a camper. More specifically a campsite is a dedicated area set aside for camping and for which often a user fee is charged. Campsites typically feature a few (but sometimes no) improvements. Dedicated campsites, known as Campgrounds, usually have some amenities. Common amenities include, fireplaces or fire pits in which to build campfires (this can be a circle of rocks, a metal enclosure, a metal grate, a concrete spot, or even just a hole), road access for vehicles, a gravel or concrete pad on which to park a vehicle, picnic tables, marked spaces indicating a boundary for one camper or a group of campers, reservations to ensure there will be available space to camp, utility hook ups such as electricity, water and sewer, primarily for the use of Travel trailers, Recreational vehicles, or similar, raised platforms on which to set up tents, piped water,pit toilets (outhouses), flush toilets and showers, sinks and mirrors in the bathrooms, a small convenience store, shower facilities (with or without hot water), wood for free or for sale for use in cooking or for a campfire, garbage cans or large rubbish bins in which to place refuse.

2.0 Production Capacity, Technology And Process Description

The business idea of a camp site is premised to accommodate over one hundred clients in a single overnight stay depending on the size of land and availability of tents and beddings.

The process of establishing a camp site involves the acquisition of open land in a strategic location such as near a tourist attraction site, in a place with a beautiful scenery like a hill which should be free from noise pollution to the prospective clients a sense of refreshment and then setting up of the essential facilities such as tents, lavatories, bar and restaurant, an internet café, playing fields and registration by law.

3.0 Targeted Scale Of Investment, Capital Investment Requirements And Equipment In USs$

3.1 Targeted Scale of Investment

The capital for the Scale of investment is estimated at USD 255,000 over 5 years and is expected to yield an estimated annual amount of USD 2,000,000 over the same time period. 100% of the capital investment will be financed by owners equity as the size of capital investment required is small in relation to the revenue received however a loan can be obtained to partially finance this investment at a rate of 10% per annum. Equipment will be a capital based as machinery will be used to provide the service such as tracking devices, and servers. Capital Investment will be carried out over a 5 year period as illustrated in the investment program below;

3.2 4-Year Investment Programe

Capital Expenditure Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Fixed Assets			**149,630**	**610**	**0**	**82,080**	**0**	**0**	**232,320**
1.1	Land	20,000	3	35,000	0	0	0	0	0	35,000
1.1.1	Land Concession	15,000	2	30,000						**30,000**
1.1.2	Site preparation and development	5,000	1	5,000						**5,000**
1.2	Building works and development			70,000	0	0	35,000	0	0	105,000
	Bar and restaurant	30,000	2	30,000	0		30,000			**60,000**
	office block and lavatories	20,000	1	20,000						**20,000**
	Walkways, campsite, elevated banda	20,000	1	20,000			5,000			**25,000**
1.3	Site equipment			15,150	0	0	3,600	0	0	18,750
	Generator (with Silencer)		1	5,000						**5,000**
	Gas (Big cylinder)		1	1,000						**1,000**
	Water Pump		1	3,000						**3,000**
	Telecom equipment		1	1,000						**1,000**
	Tv - 50" Sonny	700	5	1,400			2,100			**3,500**
	Music system/Theatre (bar / Rrestaurant)		2	1,500						**1,500**
	Solar Panels	750	5	2,250			1,500			**3,750**
1.4	Furniture, Equipment & furnishings			19,480	610	0	23,480	0	0	43,570
	Kitchen, Dining,, and Bar Equipment, Furniture and Sports/Recreational equipment/facilities			10,000						**10,000**
	Office furniture, Computers, Office Equipment, Tools and Accessories			3,000						**3,000**
	Laundry: Matresses, Bedding, Pillows, Curtains, Table Clothes and Uniforms			3,000			20,000			23,000
	Camping Equipment: Tent sets with folding chairs and sleeping bags	61	70	1,830	610		1,830			**4,270**
	Cargo bags	30	70	1,050			1,050			**2,100**
	Camping boots	30	40	600			600			**1,200**
1.5	Vehicles	10000	3	10,000			**20,000**			**30,000**
2	Preliminary Expenses			**2,000**	**0**	**0**	**0**	**0**	**0**	**2,000**
3	Working Capital			21,281			0	0		21,281
Total Investment				**172,911**	**610**	**0**	**82,080**	**0**	**0**	**255,601**

4.0 Raw Materials Requirements for 12 Months

The main direct raw materials for this investment profile will be the food stuffs and beverages that will be consumed by the campers from the restaurant and bar such as alcoholic drinks, wines, soft drinks, snacks and food. Expenditure on drect raw materials will be at US$ 52,000 and this will be expected to double by year 5 to an estimate of US$ 118,000 as illustrated in the table below.

Unit Pricing and Cost Structure

Purchases	Yearly Cost	Year1	Year 2	Year3	Year 4	Year 5	Total
	(Cost/Sales)	**51,684**	**67,014**	**77,198**	**117,165**	**117,165**	430,226
(a) Alcoholic drinks	69.93%	7,665	10,220	15,330	25,550	25,550	
(b) Spirits/wines	66.67%	1,095	1,095	2,190	4,380	4,380	
(c) Soft drinks	66.67%	2,409	5,621	5,621	12,045	12,045	
(d) Snacks	52.63%	3,650	5,840	7,300	10,950	10,950	
(e) Breakfast buffet	57.14%	8,395	10,074	12,593	16,790	16,790	
(f) Lunch Buffet	50.00%	14,235	17,082	17,082	23,725	23,725	
(g) Dinner Buffet	50.00%	14,235	17,082	17,082	23,725	23,725	

5.0 Market Analysis

There is high demand for outdoor recreation services during holidays for education institutions and festive seasons. The campsite business idea has the potential to tap into the increasing number of leisure tourists who come into Uganda to spend their money if strategically located especially near a tourist attraction site. It also requires guerilla marketing strategies such as approaching companies that hold team building activities outside office, church youth leaders and students' associations in tertiary institutions to mention but a few.

6.0 Project Business Overhead and Administration Costs (In U$$)

Fixed costs will amount to an estimate of $58,000 in the first year of operation and will increase slightly due to the increase in production by year 5 to $81,000.The business requires setting up a solid website and effectively manage it to win trust among prospective clients and inform about the services offered, advertising on televisions, radio stations, sending brochures to corporate organizations, agencies and tertiary institutions to inform them about the services, payment of bills for utilities such as water, electricity, internet services and television subscriptions per month. The tables below illustrate expected expenditure on indirect costs over the 5 year period.

Expenditures/Costs	Year1 US$	Year 2 US$	Year3 US$	Year 4 US$	Year 5 US$	Total
Salaries and Wages estimate	19,440	19,440	19,440	29,640	29,640	117,600
Office Overheads and Administration Costs	24,496	24,437	27,645	32,082	33,060	141,720
Depreciation Expenses	14,990	12,854	11,177	22,280	18,828	80,128
Total	**58,926**	**56,731**	**58,263**	**84,001**	**81,528**	**339,449**

7.0 Sources Of Supply Of Machinery And Equipment

- Tents-MAAT Tent Manufacturers & General Supplies Ltd and Majjanaja and Sons Tent Manufacturers.
- Office equipment and furniture-Nina Interiors Company Ltd
- Steel tables-Musa Body Katwe
- Office equipment-Kazinga Channel Office World

8.0 Government Facilities And Incentives Available

The Government of Uganda through the Uganda Tourism Board has devised measures to market the tourism sector internationally and also providing some tax incentives to players in the sector. There is also improvement of the existing roads and construction of new ones to ease access to the various tourist attraction sites in the country.

9.0 Profitability Analysis Table

Profitability is expected to be achieved within the firs year with an estimate of US$ 43,000 and this is expected to grow to US$ 264, 5000 by year 5 as illustrated in the table below;

Activity		Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		**172,692**	**257,113**	**399,586**	**570,129**	**575,129**	**1,974,649**
1	Camping	87,600	**146,000**	**273,750**	**383,250**	**383,250**	**1,273,850**
4	Food and Drinks	**80,092**	**104,113**	**115,836**	**176,879**	**176,879**	**653,799**
5	Miscellaneous	5,000	7,000	10,000	10,000	15,000	47,000
Cost of Goods Sold		51,684	67,014	77,198	117,165	117,165	430,226

Gross Profit	121,008	190,099	322,389	452,964	457,964	1,544,423
Operating Expenses						
Personnel and Labour Costs	19,440	19,440	19,440	29,640	29,640	117,600
Business Overheads and Admin. Costs	24,496	24,437	27,645	32,082	33,060	141,720
Depreciation Expenses	14,790	12,674	11,015	22,134	18,696	79,309
Total Operating Expenses	58,726	56,551	58,101	83,856	81,396	338,629
Net Profit(Loss) before and Tax	62,282	133,548	264,288	369,108	376,568	1,205,794
Taxation(30%)	18,685	40,064	79,286	110,733	112,970	361,738
Net Profit/(Loss) After Tax	43,597	93,484	185,002	258,376	263,597	844,056
Annual Return on Investment(After Tax)	32%	75%	94%	101%	103%	

Assumptions

- Production costs assumed 365 days a year which is 30 days a month.
- The valuation currency used is United States Dollars.
- The dollar rate is assumed at UGX 3,800 per US$1

References

- https://en.wikipedia.org/wiki/Campsite
- www.alibaba.com

2.2.2 Establishment and Management of a Tourist Lodge

1.0 Introduction

Tourist lodges are facilities which provide accommodation and refreshment facilities such as food and beverages for tourists. The tourism sector, from a balance of trade perspective, is the single largest export earner and generator of foreign exchange, at USD 979 million per annum (UBOS, 2013).This represents more than twice the earnings of coffee, the country's second biggest export. Over the years, the increase in visitor arrivals has been accompanied by an increase in earnings from tourism exports and services. Earnings from tourism have more than doubled in the period between 2008 and 2015 from US$ 540 million in 2008 to US$ 1,366 million (UGX 3,549.3Bn)1 in 2014/2015 which is 4.3% of total Gross Domestic Product (GDP) and 26% of total exports. The project idea targets the high demand for secure accommodation facilities in close proximity of the tourist attraction sites in Uganda.

2.0 Production Capacity And Process

The tourist lodge will have the capacity to accommodate 15 individuals daily in the first year of production at a charge of US$ 30 which translates into at least 4,500 individuals per year. And this will be expected to increase to 30 rooms by year 5. The core business of the Tourist Lodge shall be provision of accommodation services to tourists and travelers. The clients are expected to book in, to spend a night or a few days to rest, refresh and depart. The business project implementation process involves acquisition of land, construction of the accommodation and the corresponding leisure facilities at the sites concessioned from either Uganda Wildlife Authority or National Forestry Authority and undertaking all the necessary business registration and securing sector-level secondary licenses.

3.0 Targeted Scale Of Investment Capital Investment Requirements And Equipment

The capital requirement for this Scale of investment is estimated at USD 571,000 spread over the first 5 years and it is expected to yield about US$1,370,649 in the same time period. Equipment to be used will be labour based due to the nature of the business as it is in the hospitality sector and because daily production is expected to be low with the highest average rate expected to be 18 guests per day. The Capital expenditure is expected to be financed using 60% equity and 40% loan financing at a rate of 10% per annum due to the large amount of capital required. For the first 12 months of operation, the minimum scale of investment should cover the purchase of an acre of land, construction of self-contained accommodation units such as single rooms and double rooms and the corresponding leisure facilities and services such as a bar and restaurant, internet connection services or café and laundry

services. This expenditure is expected to be done within a five year period as illustrated in the Investment Programme below;

5-Year Investment Programme

Capital Expenditure Items		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Fixed Assets			**386,838**	**4,550**	**0**	**133,100**	**0**	**0**	**524,488**
1.1	Land	**24,000**	**2**	**24,000**	**0**	**0**	**0**	**0**	**0**	**24,000**
1.1.1	Land Concession	20,000	1	20,000						20,000
1.1.2	site preparation and development	4,000	1	4,000						**4,000**
1.2	Building works and development			210,000	0	0	90,000	0	0	300,000
	Cottage Construction	9,000	20	180,000	0		80,000			**260,000**
	Swimming Pool	20,000	1	20,000						**20,000**
	Walkways, campsite, elevated banda			10,000			10,000			**20,000**
1.3	Lodge Facilities and Equipment			41,900	1,000	0	12,000	0	0	54,900
	Generator (with Silencer)	6,000	1	6,000						**6,000**
	Gas (Big cylinder)	1,000	1	1,000						**1,000**
	Water Pump	10,000	1	10,000						**10,000**
	Telecom equipment	5,000	1	5,000						**5,000**
	Tv - 15" Sonny	200	32	3,400	1,000		2,000			**6,400**
	Music system/Theatre (bar and restaurant)	750	2	1,500						**1,500**
	Solar Panels	750	20	15,000			10,000			**25,000**
1.4	Furniture, Equipment &Tools			91,938	3,550	0	12,100	0	0	107,588
	Kitchen, bar,cooking and catering Equipment, utensils and crockery			30,000						**30,000**
	Furniture, Office equipment, computer and office automation equipment			8,000						**8,000**
	Bedding and housekeeping materials and equipment			15,000			5,000			**20,000**
	Cottage Furniture and Mattresses			**38,938**	**3,550**	**0**	**7,100**	**0**	**0**	**49,588**
1.5	Vehicles		**2**	**19,000**	**0**		**19,000**			**38,000**
2	Preliminary Expenses			**8,000**	**0**	**0**	**0**	**0**	**0**	8,000
3	Working Capital			**38,398**			**0**	**0**		**38,398**
Total Capital Investment Requirement				**433,235**	**4,550**	**0**	**133,100**	**0**	**0**	**570,885**

3.0 Raw materials Requirements

The main raw materials include food stuffs and drinks for the bar and restaurant. The business requires setting up and management of online platforms such as a website to inform the prospective clients about the services offered and enables clients to book for services in advance. Advertising is also required through television, radio stations and sending brochures to tour agencies which provide other services to the prospective clients. Other inputs may include cleaning suppliesfor laundry services, drinks and daily food stuffs for the bar and restaurant.

Direct Production/Purchase Costs

Purchases	Cost of Sales	Year1 US$	Year 2 US$	Year3 US$	Year 4 US$	Year 5 US$	Total US$
	19,871	26,315	39,881	58,678	60,321	205,065	
(a) Alcoholic drinks	65.00%	7,829	11,744	17,616	17,616	17,616	72,421
(b) Spirits/wines	65.00%	1,898	1,898	2,847	7,592	7,592	21,827
(c) Soft drinks	40.00%	2,555	2,555	2,555	8,176	8,176	24,017

	(d) Snacks	30.00%	2,464	3,285	5,475	8,213	9,855	29,291
	(e) Lunch Buffet	30.00%	2,562	3,416	5,694	8,541	8,541	28,755
	(g) Dinner Buffet	30.00%	2,562	3,416	5,694	8,541	8,541	28,755

4.0 Market Analysis

Tourism is one of the highest foreign exchange earners for Uganda and one of the fast-growing sectors. It is a major driver of employment, investment and foreign exchange, contributing 4.9 trillion Ugandan shillings (US$1.88 billion or €1.4 billion as of August 2013) to Uganda›s GDP in the financial year 2012-13. This implies that there is increasing demand for secure and affordable accommodation facilities since most of the clients in the sector are leisure tourists who not only spend a night but some days visiting various tourist attraction sites around the county. This business idea can profitably commence in the close proximity of areas such as Kalagala Falls, Kalangala Islands, Bwindi Impenetrable National Park, Queen Elizabeth National Park, Kidepo National Park, Murchison Falls National Park, Kibale Forest National Park. There is need for aggressive marketing strategies to create awareness of existence of such services to the prospective clients both tourists and travelers.

5.0 Project Costs (Fixed Costs And Working Capital)

Fixed costs will amount to an estimate of $134,000 in the first year of operation and will increase slightly due to the increase in clients by year 5 to $148,000 as illustrated in the table below. These costs comprise of utilities, wages, and transport costs, depreciation, to mention but a few.

	Year 1	Year 2	Year3	Year 4	Year 5	Total
Salaries and Wages estimate	34,200	34,200	34,200	46,680	46,680	195,960
Overhead Costs – Utilities, Office and Administration Costs	51,820	51,411	53,725	61,817	61,559	280,332
Depreciation Expenses	47,835	40,948	35,156	45,565	39,563	209,068
Total Operating Expenses	**133,855**	**126,559**	**123,082**	**154,062**	**147,802**	**685,360**

6.0 Sources Of Raw Materials, Machinery And Equipment

- Food and drinks can be gotten from Kikuubo in Kampala at lower prices.
- Fresh foods can be gotten from regional markets close to the tourist lodge for example Jinja market if the location is Jinja
- Other raw materials like cleaning supplies can also be gotten from Kikuubo
- Furniture can be sourced from retailers such as footsteps furniture on Kampala road
- Electronics can be obtained from shops in Kampala especially on Kampala Road
- Kitchen appliances and other machinery can be obtained from Musa Body in Katwe and from Arua Park in Kampala

7.0 Government Facilities And Incentives Available

The Government of Uganda through the Uganda Tourism Board has put in place measures to develop, boost and advertise tourism in the whole world and working hand in hand with all players and developers in the tourism sector to benefit from some tax incentives on importation of their equipment such as vehicles. The Government of Uganda has also worked on improving the existing and construction of new roads to make the tourist attraction sites accessible in the country.

8.0 Profitability For A 5 Year Period

With the occupancy rate at 30% and the rooms going for US$ 30, revenue from the first year of production will be estimated at US$ 113,000 however profit may not be achieved due to the large amount of investment required however the tourist lodge is expected to break even within the third year of production. During the first 5 years, the profits will be estimated to be at US$ 150,000 as illustrated in the projected profit and loss account illustrated below;

Activity		Year 1	Year 2	Year3	Year 4	Year 5	Total
Revenue		113,322	168,501	264,879	387,336	436,611	1,370,649
1	Accommodation	**49,275**	**87,600**	**146,000**	**219,000**	**262,800**	**764,675**
3	Committee Rooms	**2,400**	**4,800**	**4,800**	**4,800**	**4,800**	**21,600**
4	Food and Drinks	46,647	61,101	**94,079**	**143,536**	**149,011**	**494,374**

5	Miscellaneous	15,000	15,000	20,000	20,000	20,000	90,000
Cost of Goods Sold		19,871	26,315	39,881	58,678	60,321	205,065
Gross Profit		93,451	142,186	224,998	328,658	376,290	1,165,584
Operating Expenses							
	Personnel and Labour Costs	34,200	34,200	34,200	46,680	46,680	195,960
	Overhead Costs – Utilities, Office and Administration Costs	51,820	51,411	53,725	61,817	61,559	280,332
	Depreciation Expenses	47,835	40,948	35,156	45,565	39,563	209,068
Total Operating Expenses		133,855	126,559	123,082	154,062	147,802	685,360
Net Profit(Loss) before Interest and Tax		-40,404	15,627	101,916	174,596	228,489	480,224
Development Loan Interest Expense		0	16,930	13,640	9,789	5,937	46,296
Net Profit/(Loss) before Tax		-40,404	-1,302	88,276	164,807	222,551	433,929
Taxation (30%)		-12,121	-391	26,483	49,442	66,765	130,179
Net Profit/(Loss) After Tax		-28,283	-912	61,793	115,365	155,786	303,750
	Annual Return on Investment(After Tax)	-8%	0%	15%	20%	27%	

9.0 Assumptions

- Production is carried out for 300 days in a year
- The figures financials provided are in USD
- The going dollar rate is UGX 3,800/ $1

2.2.3 Travel Agency Business

1.0 Introduction

A travel agency is a private retailer or public service that provides travel and tourism related services to the public on behalf of suppliers such as airlines, car rentals, cruise lines, hotels, railways, travel insurance and package tours. In addition, most travel agencies have a separate department devoted to making travel arrangements for business travelers. This business idea is of establishment and running a travel agency. It is premised to provide both long and short distance transportation and tour services to all categories of tourists such as leisure tourists, students on geography study tours, church members on a mission or retreat.

2.0 Targeted Business Capacity, Technology And Process Description

The business idea of the travel agency will provide travel arrangements, the main one being arranging trips for clients to destinations of their choice either individually or in groups. The prices charged for the services and transportation will depend on the number of people, the number of days for which the service is to render and the duration for which the service will be rendered. The prices charged per client will range from a minimum of $200 per person to $400 per person. Technology to be used will mainly include transportation in the form of cars and GPS tracking devices for the clients.

Three different packages will be provided as described below;

- Package 1-This will comprise of camping and touring of selected sites in the chosen region of travel within Uganda for a duration of 3 days and 2 nights for US$200 per person;.
- Package 2-This package will comprise of hotel accommodation and touring of chosen sites and areas in the chosen destination within Uganda for 3 days and 2 nights for US$300 per person; and,
- Package 3-This will comprise of camping for a night, hotel accommodation for 2 nights and touring of different sites and areas in a chosen region within Uganda for 3 days and 3 nights.

3.0 Capital Investment Requirements And Equipment (In U$$)

The capital requirement for this Scale of investment is estimated at USD 160,000 spread over the first 5 years and it is expected to yield about US$660,000 in the same time period. Equipment to be used will be labour based due to the nature of the business as it is in the hospitality sector and because daily production is expected to be low with the highest average rate expected to be 15 clients per day. The Capital expenditure is expected to be financed using 70% equity and 30% loan financing at a rate of 10% per annum due to the large amount of capital required. For the first 12 months of operation, the minimum scale of investment should cover the purchase of a 5 year lease, construction of office space,

and purchase of office equipment. This expenditure is expected to be done within a five year period as illustrated in the Investment Programme below;

Year Investment Programme

		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	Fixed Assets			109,867	3,286	3,000	37,147	3,000	0	156,300
1.1	Leasehold offices	8,600	6	23,000	0	0	0	0	0	23,000
1.1.1	Leasehold (5 years)	3,600	5	18,000						18,000
1.1.2	Office preparation and set up	5,000	1	5,000						5,000
1.2	Building works and development			10,000	0	0	0	0	0	10,000
	Office walk ways, parking sheds for travel vehicles	10,000	1	10,000	0					10,000
1.3	office equipment			7,310	0	0	1,590	0	0	8,900
	Generator (with Silencer)		1	5,000						5,000
	Telecom equipment		1	1,000						1,000
	Tv - 50" Sonny	700	2	560			840			1,400
	Solar Panels	750	2	750			750			1,500
1.4	Furniture, Equipment & furnishings			29,557	3,286	3,000	5,557	3,000	0	44,400
	Computers and electronic equipment	1,000	5	5,000	0	0		0	0	5,000
	Office furniture (Tables, Chairs, safe, Waiting Chairs, Filing cabinets)	3,000	1	3,000						3,000
	Tent sets with folding chairs and sleeping bags	100	20	857	286		857			2,000
	Cameras	800	20	16,000						16,000
	Cargo bags	70	20	700			700			1,400
	Camping boots	50	40	1,000			1,000			2,000
	First aid kits and fire extinguishers	100	150	3,000	3,000	3,000	3,000	3,000		15,000
1.5	Vehicles	10000	7	40,000			30,000			70,000
2	Preliminary Expenses			3,000	0	0	0	0	0	3,000
3	Working Capital			82,228			0	0		41,114
TOTAL INVESTMENT				**153,981**	**3,286**	**3,000**	**37,147**	**3,000**	**0**	**200,414**

4.0 Raw Materials Requirements For 12 Months

This Investment profile has few direct raw materials however direct inputs may include accommodation fees at hotels and camping sites, safety equipment and access fees to tourist attraction sites for clients. In the first year of production, expenditure on these will amount to US$ 530,000 and will reach US$ 800,000 by year 5 due to increase in number of clients from an average of 10 clients per day to 30 clients per day. This is illustrated in the table below;

Services Procurement Costs

	Yearly	Year1	Year 2	Year3	Year 4	Year 5	Total
	Cost						
Purchases	(Cost/ Sales)	529,250	273,750	547,500	547,500	821,250	2,719,250
Accomodation fees (Average fees)	80	292,000	146,000	292,000	292,000	438,000	1,460,000
Safety jackets with whistles	10	36,500	18,250	36,500	36,500	54,750	182,500
Tourist attraction activities fees and tourist attraction sites and areas access fees	50	182,500	91,250	182,500	182,500	273,750	912,500
First aid supplies	10	18,250	18,250	36,500	36,500	54,750	164,250

5.0 Market Analysis

Tourism is one of the highest foreign exchange earners for Uganda and one of the fast-growing sectors. It is a major driver of employment, investment and foreign exchange, contributing 4.9 trillion Ugandan shillings (US$1.88 billion or €1.4 billion as of August 2013) to Uganda›s GDP in the financial year 2012-13. This implies that there is increasing demand for secure and affordable travel packages since most of the clients in the sector are leisure tourists who not only spend a night but some days visiting various tourist attraction sites around the county. This business idea can profitably commence in the close proximity of areas such as Kalagala Falls, Kalangala Islands, Bwindi Impenetrable National Park, Queen Elizabeth National Park, KidepoNational Park, Murchison Falls National Park, Kibale Forest National Park. There is need for aggressive marketing strategies to create awareness of existence of such services to the prospective clients both tourists and travelers and this can be done over the internet.

6.0 Business Overheads And Administration Costs (In Us$)

Fixed costs will amount to an estimate of $250,000 in the first year of operation and will increase due to the increase in clients by year 5 to $390,000 as illustrated in the table below. These costs comprise of utilities, wages, fuel and transport costs, to mention but a few.

Personnel and Labour Costs (In US$)

Expenditures/Costs	Year1 US$	Year 2 US$	Year3 US$	Year 4 US$	Year 5 US$	Total
Salaries and Wages estimate	60,120	60,120	60,120	92,160	92,160	364,680
Office Overheads and Administration Costs	166,294	166,476	167,085	276,564	277,399	1,053,817
Depreciation Expenses	21,050	17,976	16,149	20,807	18,842	94,823
Total	**247,464**	**244,571**	**243,354**	**389,531**	**388,401**	**1,513,320**

7.0 Sources Of Supply Of Machinery And Equipment

- Tents-MAAT Tent Manufacturers & General Supplies Ltd and Majjanaja and Sons Tent Manufacturers.
- Office equipment and furniture-Nina Interiors Company Ltd
- Motor cars-Be forward Uganda Ltd
- Office equipment-Kazinga Channel Office World

8.0 Government Facilities And Incentives Available

The Government of Uganda is working on improvement of the existing roads and construction of new ones to ease access to the various tourist attraction sites in the country. Through the Uganda Tourism Board, the government has devised measures to market the tourism sector internationally and also provide tax incentives to players in the sector.

9.0 Profitability Analysis Table

With an estimate of 10 clients per day in year 1 expected to triple by year 5, this investment profile will be expected to break even within the first year of production with the estimated average rate of US $ 1,250 per group of 5 clients which is US$ 250 per client. Profit will be expected by year 3 with a profit of US$ 144,000 and this will be expected to increase to about US$ 275,000 by year 5 due to increase of customers to about 30 customers per day as illustrated in the table below;

Activity		Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		**502,495**	**504,495**	**1,001,888**	**1,114,490**	**1,601,473**	**4,724,840**
1	Touring packages	456,250	456,250	912,500	1,022,000	1,459,635	**4,306,635**
2	Total rentals revenue	41,245	41,245	79,388	82,490	126,838	**371,205**
3	Miscellaneous	5,000	7,000	10,000	10,000	15,000	**47,000**
Cost of Goods Sold		273,750	273,750	547,500	547,500	821,250	2,463,750
Gross Profit		228,745	230,745	454,388	566,990	780,223	2,261,090
Operating Expenses							0
	Personnel and Labour Costs	60,120	60,120	60,120	92,160	92,160	364,680
	Business Overhead and Admin. Costs	166,294	166,476	167,085	276,564	277,399	1,053,817
	Depreciation Expenses	21,050	17,976	16,149	20,807	18,842	94,823
Total Operating Expenses		**247,464**	**244,571**	**243,354**	**389,531**	**388,401**	**1,513,320**

Net Profit(Loss) before Interest and Tax	**-18,719**	**-13,826**	**211,034**	**177,459**	**391,822**	**747,770**
Development Loan Interest Expense	**0**	**5,717**	**4,606**	**3,306**	**2,005**	**15,635**
Net Profit/(Loss) before Tax	**-18,719**	**-19,543**	**206,428**	**174,154**	**389,816**	**732,135**
Taxation(30%)	**-5,616**	**-5,863**	**61,928**	**52,246**	**116,945**	**219,640**
Net Profit/(Loss) After Tax	**-13,103**	**-13,680**	**144,499**	**121,907**	**272,871**	**512,494**
Annual Return on Investment(After Tax)	-14%	-17%	144%	50%	113%	
Average Annual Return on Investment					55%	

10.0 Assumptions

- Production costs assumed 365 days a year, 30 days a month, daily capacity serving 5clients.
- Depreciation assumes 3 years life of assets written off at 15% per year.
- The valuation currency used is United States Dollars.
- The exchange rate for the dollar is UGX 3,800 per US$1

11.0 References

- https://en.m.wikipedia.org/wiki/Travel_agency

2.2.3 Recreation Centre

1.0 Introduction

A recreation center is a place for recreational activities usually administered by a municipal government agency. Swimming, basketball, weightlifting, volleyball and kids' play areas are very common. The business idea of setting up are creation center is premised to provide space for recreational activities at a fee to the young and old who prefer to spend leisure time in a refreshing outdoor environment. This recreation centre should be set up in or in close proximity to heavily populated areas which happen to be towns such as Kampala, Mukono, Wakiso, Jinja, Liira and Fortportal, to mention but a few.

2.0 Production Capacity, Technology And Process Description

The recreation center will provide space where meetings, weddings and related functions can be held, sports activities for the young and old can be played such as football and swimming.

The process of establishing a recreation center involves the acquisition of land open to the public in a strategic location such as near a tourist attraction site, near a highly populated urban area. Setting up of the essential facilities such as office space, lavatories, bar and restaurant, playing fields, swimming pool and bouncing castlesthen registration by law.

3.0 Targeted Scale Of Investment, Capital Investment Requirements And Equipment In US$

The minimum capital investment is estimated to be US$385,000 and this should cover the acquisition of land partitioning it, construction of essential facilities, construction of infrastructure, purchase of recreation equipment such as water rafts and quad bikes and purchase of office furniture and equipment. Due to the size of this investment, 60% of the expenditure will be done through equity financing and the other 40% through loan financing. The table below shows capital expenditure over the five year period;

4.0 5-Year Projected Investment Programme

Capital Investment Item		Unit Cost	Qty	Year 0	Yr 1	Yr 2	Yr 3	Yr 4	Year 5	TOTAL
1	Fixed Assets			295,510	0	0	169,850	0	0	385,360
1.1	Land	12,000	5	26,000	0	0	12000	0	0	38,000
1.1.1	Land Concession	7,000	4	21,000			7,000			28,000
1.1.2	site preparation and development	5,000	1	5,000			5,000			10,000
1.2	Building works and development			70,000	0	0	40,000	0	0	110,000

Capital Investment Item		Unit Cost	Qty	Year 0	Yr 1	Yr 2	Yr 3	Yr 4	Year 5	TOTAL
	Construction of main block with bar, restaurant and conference	20,000	3	30,000	0		30,000			60,000
	Swimming Pool	20,000	1	20,000						20,000
	Walkways, campsite, elevated banda, pitches			20,000			10,000			30,000
1.3	Lodge Facilities and Equipment			39,050	0	0	13,750	0	0	52,800
	Generator (with Silencer)		1	10,000						10,000
	Gas (Big cylinder)		1	1,000						1,000
	Bouncing castles	2,000	5	6,000			4,000			10,000
	Water Pump		1	10,000						10,000
	Telecom equipment		1	5,000						5,000
	Tv - 15"	300	6	1,800			6,000			7,800
	Music system/Theatre (bar and restaurant)		2	1,500						1,500
	Solar Panels	750	5	3,750			3,750			7,500
1.4	Furniture, Equipment & furnishings			80,460	0	0	24,100	0	0	104,560
	Water rafting equiment	10,000	1	10,000	0	0	5,000	0	0	15,000
	Kitchen Equipment/Utensils, Dining Furniture, Refridgeration Units, Cookers, Micro wave oven, Deep flyers, Cheffing Dishes, Kitchen Tools, Accessories			30,000						30,000
	Office Furniture, Equipment, Computers, Tools and Accessories			10,000						10,000
	Conference furnishing and equipment			7,700			3,550			11,250
	Conference tables and podium	120	10	1,200			50			1,250
	Conference chairs	20	300	4,000			2,000			6,000
	Public address system	2	1000	1,000			1,000			2,000
	Curtains air conditioning and other fittings		2000	1,500			500			2,000
	Money Safe		1	500			500			1,000
	Restaurant equipment and furniture	2	10000	10,000			10,000			20,000
	Front office designs		1	1,500						1,500
	Key holders	3	20	60						60
	Plastic garden tables	50	30	1000			500			1,500
	Cutlery			1,000						1,000
	Feld equipment(ball, nets, rackets, Cones	100	20	1,000			1,000			2,000
1.5	Vehicles(quad bikes, bicycles, vans)	8000	20	80,000	0		80,000			80,000
2	Preliminary Expenses			3,000	0	0	0	0	0	3,000
3	Working Capital			16,670			0	0		16,670
Total Investment				315,180	0	0	169,850	0	0	405,030

5.0 Raw Materials Requirements For 12 Months

The main raw materials include food stuffs and drinks for the bar and restaurant. The business requires setting up and management of online platforms such as a website to inform the prospective clients about the services offered and enables clients to book for services in advance. Advertising is also required through television, radio stations and sending brochures to tour agencies which provide other services to the prospective clients. Other inputs may include cleaning supplies for laundry services, drinks and daily food stuffs for the bar and restaurant.

Direct Production/Purchase Costs

Purchases	Unit	Year1		Year 2		Year3		Year 4		Year 5	
	Cost	Qty pro-cured	Amount spent	Qty pro-cured	Amount spent	Qty pro-cured	Amount spent	Qty pro-cured	Amount spent	Qty pro-cured	Amount spent
			54,195		**61,320**		**92,528**		**171,915**		**171,915**
(a) Alcoholic drinks	0.8	10950	8,760	18,250	14,600	18,250	14,600	29,200	23,360	29,200	23,360
(b) Spirits/ wines	5	365	292	365	1,825	548	2,738	1,095	5,475	1,095	5,475
(c) Soft drinks	0.4	36500	29,200	36,500	14,600	36,500	14,600	54,750	21,900	54,750	21,900
(d) Snacks	2.3	1095	876	3,650	8,395	7,300	16,790	14,600	33,580	14,600	33,580
(e) Lunch Buffet	3	1095	876	3,650	10,950	7,300	21,900	14,600	43,800	14,600	43,800
(g) Dinner Buffet	3	17739	14,191	3,650	10,950	7,300	21,900	14,600	43,800	14,600	43,800

6.0 Market Analysis

There is high demand for outdoor recreation services during holidays for education institutions, foreign tourists and natives looking to have adventures and pass time. The recreation centre has the potential to tap into the increasing number of leisure tourists who come into Uganda to spend their money if strategically located especially near a tourist attraction site. There are numerous institutions which can also use this facility for activities such as camping for scouts clubs, sports for schools and other institutions and also as a destination during school trips. For this investment to be profitable, intensive marketing will be required such as social media, television advertisement as well as approaching companies that hold team building activities outside office, church youth leaders and students' associations in tertiary institutions to mention but a few.

7.0 Product Costs And Revenues In U$$

Business overheads and administration costs will amount to an estimate range of $50,000 in the first year of operation and will increase due to the increase in production by year 5 to $ 70,000. Payroll costs, the other key business cost will increase from an estimate of US$ 50,000 in year 1 to US$ 74m000 by year 5. The business requires setting up a functional website to win trust among prospective clients and inform about the services offered. The Business overheads and administration costs include salaries, payment of bills for utilities such as water, electricity, internet services and television subscriptions, to mention but a few. T he Table below illustrates expected expenditure on these costs over the 5 year period

Table 9 - Overhead Costs - Utilities, Office Expenses, etc(US$)

Expenditures/Costs	Year1 US$	Year 2 US$	Year3 US$	Year 4 US$	Year 5 US$	Total
Salaries and Wages estimate	50,340	50,340	50,340	74,100	74,100	299,220
Office Overheads and Administration Costs	49,682	53,365	57,326	76,349	76,002	312,725
Depreciation Expenses	36,868	31,698	27,305	43,325	48,475	187,671
Total	**136,890**	**135,404**	**134,971**	**193,774**	**198,577**	**799,616**

8.0 Sources Of Supply Of Machinery And Equipment

- Tents-MAAT Tent Manufacturers & General Supplies Ltd and Majjanaja and Sons Tent Manufacturers.
- Office equipment and furniture-Nina Interiors Company Ltd
- Steel tables-Musa Body Katwe
- Office equipment-Kazinga Channel Office World
- Rafting equipment-Qingdao Jiahai Boat Co Ltd
- Quad bikes-Wuhan AGY Machinery Equipment Co. Ltd

9.0 Government Facilities And Incentives Available

The Government of Uganda is working on improvement of the existing roads and construction of new ones to ease access to the various tourist attraction sites and recreation centers in the country. Through the Uganda Tourism Board measures have been devised to market the tourism sector internationally.

This creates chance for market to the recreation centers due to the increasing number of foreign tourists of which leisure tourist are the majority.

10.0 Profitability Analysis Table

With the estimated average of 8 customers per day in year 1 expected to grow to 24 customers, the investment profile will generate profits and break even within the second year of production. Revenue will be obtained from accommodation, food and beverages, camping, swimming pool access, quad biking and field activities to mention but a few as illustrated in the 5 year profit and loss table below;

Activity		Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		181,855	288,859	427,294	671,712	792,162	2,361,880
1	Rafting	54,750	109,500	109,500	219,000	328,500	821,250
2	Committee Rooms	3,600	4,800	7,200	8,400	8,400	32,400
3	Swimming Pool, Biking & field activities	54,020	54,020	129,575	129,575	140,525	507,715
3	Food and Drinks	49,485	95,539	151,019	284,737	284,737	865,515
5	Miscellaneous	20,000	25,000	30,000	30,000	30,000	135,000
Cost of Goods Sold		54,195	61,320	92,528	171,915	171,915	551,873
Gross Profit		127,660	227,539	334,766	499,797	620,247	1,810,008
Operating Expenses							0
	Personnel and Labour Costs	50,340	50,340	50,340	74,100	74,100	299,220
	Business Overheads and Admin. Costs	49,682	53,365	57,326	76,349	76,002	312,725
	Depreciation Expenses	36,868	31,698	27,305	43,325	48,475	187,671
Total Operating Expenses		136,890	135,404	134,971	193,774	198,577	799,616
Net Profit(Loss) before Interest and Tax		-9,230	92,135	199,795	306,022	421,669	1,010,392
Development Loan Interest Expense		0	4,509	7,442	5,341	3,239	20,531
Net Profit/(Loss) before Tax		-9,230	87,626	192,354	300,682	418,430	989,861
Taxation30%)		(2,769)	26,288	57,706	90,205	125,529	296,958
Net Profit/(Loss) After Tax		-6,461	61,338	134,648	210,477	292,901	692,903
	Annual Return on Investment(After Tax)	-2%	26%	35%	43%	72%	
	Average Annual Return On Investment	35%					

11.0 Assumptions

1. Production costs assumed 365 days a year which is 30 days a month.
2. Depreciation of assets is done using the educing balance method
3. The valuation currency used is United States Dollars.
4. The exchange rate is UGS 3,800 per US$1

12.0 References

- https://en.wikipedia.org/wiki/Recreation
- www.alibaba.com

2.3 INFORMATION AND COMMUNICATION TECHNOLOGY

2.3.1 WEB HOSTING

1.0 Introduction

Web hosting is the using or renting of space on a company's server with an aim of running your web site. A web hosting service is a type of internet hosting service that allows individuals and organizations to make their website accessible via the World Wide Web through opening up sites on a single company's server so as the entire world out can view or access it.

2.0 Introduction About The Service

Web hosting started way back in 1990s with very few clients due to inadequate knowledge but today, this has improved due to more computer knowledge acquired about the importance of media in the day to day living..

3.0 Production Capacity

The table below shows the kinds of web sites the company is willing to open up for the client in need of any of them, it further more shows the number of clients expected for each of the services and the number of working days per year which is 300 days.

Years	**1**	**2**	**3**	**4**	**5**
Personal website					
Estimated clients per month	2	2	3	3	5
Business website					
Estimated clients per month	2	3	3	3	3
Total	**48**	**60**	**72**	**72**	**96**

4.0 Process of Opening Up a Web Site.

Free 0 USD(for life)	Personal 5 USD (per month, billed yearly)	Premium 8 USD (per month, billed yearly)	Business 25 USD (per month, billed yearly)
Best for starting	Best for personal	Best for free lancers	Best for small business
If you want to create, get a free site and be on your to publish in less than 5 minutes.	Boost your website with a custom domain name remove all word press. com adverting.	Build a unique website site with advanced design tools, css editing. Lots of space for audio, video and ability to monetize your site with ads.	Power your business website with unlimited premium& business theme templates, Google analytic support and many others.

Word press.com sub domain	Free domain for one year	Free domain for one year.	Free domain for one year.
3GB storage, community support, jet pack essentials features.	Jet packs essentials features, email & live chat support.	Jet packs essentials features, email & live chats support, unlimited premium themes.	Jet pack essential features, email & live chat support, unlimited premium themes.
Basic design customization, dozens of free themes	Dozens of free theme, basic design customization, 6GB storage space, remove word press com ads	Advanced design customization, 13GB storage space, remove word press, advanced social media.	Advanced design customization, unlimited storage, remove word press com ads, advanced social media, simple payments.

5.0 Description of the Technology Underlying the Service

Web hosting as a service requires a lot of technical knowledge but less time to operate. The company must have connected servers in order open up web site pages for the clients which is known as shared web hosting on a single.

6.0 Targeted Scale of Investment

The table below shows the equipment and furniture needed for the investment and the cost and quantity of each for a period of five years. The Capital investments required will amount to 3,606 dollars inclusive of furnishings of 1,200 dollars as shown below.

		Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	Fixed Assets		1,996	0	0	0	0	0	2,806
1.3	Facilities and Equipment		810	0	0	0	0	0	1,620
	computers	2	810			810			1,620
1.4	Furniture, Equipment & furnishings		1,186	0	0	0	0	0	1,186
	Office Requirements (Fax Machine, Printer, Tables, Chairs, Waiting Chairs, Computer table, Cables, connectors and installation), servers		1,132						1,132
	Installation		54						54
3	Working Capital		800			0	0		800
TOTAL INVESTMENT			**2,796**	**0**	**0**	**0**	**0**	**0**	**3,606**

7.0 Raw Materials.

Raw materials required for the investment to kick up and these include mainly internet subscription of about 2000 dollars for the first year and 1000 dollars for power that the computers use. These costs are projected for a relative period of 5 years.

6.0 Market Analysis.

The world is moving away from a digital error to an analog era where more of such technological services are highly demanded and where more of the work is done by machines which are more efficient and time saving. At this moment, business is advertised on different web sites and customers place orders online. The most common web site host is the blue host visited by over ten thousand people in the past month of this very year. It hosts a minimum of 2.95 dollar people per month most of whom want to advertise and market their business.

7.0 Projected Overhead and Administrative Costs

The Table below, shows the projected overhead and administration costs to be incurred annually to provide the Web Hosting services over the 5-year business period. The annual overhead costs are projected to be in the range of US$ 7,000– 12,000 per year over the 5-year project period. These are presented in the Table below.

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Personnel and Labour Costs	4,070	6,105	7,100	7,100	8,946	33,321
Business Overheads and Admin. Costs	2,774	2,635	2,527	2,441	2,374	12,751
Audit fees	1,000	1,000	1,000	1,000	1,000	5,000
Stationery	100	100	100	100	100	500
Rent	972	972	972	972	972	4,860
Depreciation Expenses	702	563	455	369	302	2,391
Total Operating Expenses	**6,844**	**8,740**	**9,627**	**9,541**	**11,320**	**46,072**

8.0 Sources Of Supply Of Machinery

- Real systems (U) Ltd, Loyds mall, plot 1 Entebbe road
- Computer Facilities Technical Services Ground floor, plot 89 Kira Road
- PC world computers Ltd, plot 55 Bukoto Street

9.0 Government Facilities And Incentives

Through the Youth Connekt initiative, the government has connected some of the youth to different countries to study ICT and through other youth initiatives the government has promoted youth education and many youth have engaged into ICT studies hence have started up web site businesses.

10.0 5-Year Profitability Analysis

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue	9,940	12,940	14,860	14,860	18,700	71,300
Personal	1,920	1,920	2,880	2,880	4,800	**14,400**
business	7,920	10,920	11,880	11,880	13,800	**56,400**
Miscellaneous	100	100	100	100	100	**500**
Cost of Goods	2,040	3,710	3,973	3,895	4,908	**18,526**
Gross Profit	7,900	9,230	10,887	10,965	13,792	52,774
Operating expenses						
Personnel and Labour Costs	4,070	6,105	7,100	7,100	8,946	33,321
Business Overheads and Admin. Costs	2,072	2,072	2,072	2,072	2,072	10,360
Depreciation Expenses	702	563	455	369	302	2,391
Total Operating Expenses	6,844	8,740	9,627	9,541	11,320	46,072
Net Profit /Loss Before Tax	1,056.5	489.8	1,259.9	1,423.5	2,472.4	52,035
Taxation 30%	317	147	378	427	742	2,011
Net Profit /Loss After Tax	739.55	342.87	881.95	996.46	1,730.65	4,691
Annual Return on Investment(After Tax)				24%		

11.0 Assumptions:

- The monetary terms are all in US dollars
- We assume that the company uses a shared website server.
- We assume that the company deals with opening up only three sites namely; personal and business sites for the clients who need them.

2.3.2 Online Shopping

1.0 Introduction

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Consumers find a product of interest by visiting the website of the retailer directly or by searching among alternative vendors using a shopping search engine, which displays the same product's availability and pricing at different e-retailers. As of 2016, customers can shop online using a range of different computers and devices, including desktop computers, laptops, tablet computers and smartphones. An online shop evokes the physical analogy of buying products or services at a regular "bricks-and-mortar" retailer or shopping center; the process is called business-to-consumer (B2C) online shopping. When an online store is set up to enable businesses to buy from another businesses, the process is called business-to-business (B2B) online shopping. A typical online store enables the customer to browse the firm›s range of products and services, view photos or images of the products, along with information about the product specifications, features and prices. Online stores usually enable shoppers to use «search» features to find specific models, brands or items. Online customers must have access to the Internet and a valid method of payment in order to complete a transaction, such as a credit card, an Interac-enabled debit card, or a service such as PayPal. For physical products (e.g., paperback books or clothes), the e-tailer ships the products to the customer; for digital products, such as digital audio files of songs or software, the e-tailer usually sends the file to the customer over the Internet. The largest of these online retailing corporations are Alibaba, Amazon.com, and eBay.

2.0 Production Capacity And Process

The production capacity will be determined by the number of online customers visiting the online shop and these will be expected to be 500 in the first year of operation. There is no production in the online business rather sale of finished goods ordered by customers over the internet after which the items are purchased for the customers and delivered to them or picked up by the customers themselves from the online shop offices where they are stored after purchasing.

3.0 Scale Of Investment Capital Requirements And Equipment

The capital requirement for this Scale of investment is estimated at USD 65,000 spread over the first 5 years and it is expected to yield revenue of about USD 7,650,000 in the same time period. Very little

equipment will be required as there will be no production carried out however items like CCTV cameras and desktops to run the online website will be procured. The Capital expenditure is expected to be financed using 100% equity due to the small amount of capital required and this expenditure is expected to be done within a five year period as illustrated in the Investment Programme below;

4.0 5-Year Project Investment Programme

Capital Investment Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
	Fixed Assets			47,250	0	0	17,500	0	0	64,750
1.1	Location	20,000	2	20,000	0	0	0	0	0	20,000
1.1.1	Lease (5 Years)	18,000	1	18,000						18,000
1.1.2	Office and Store preparation	2,000	1	2,000						2,000
1.2	Building works and development			1,000	0	0	1,000	0	0	2,000
	Office and storage partitioning	1,000	1	1,000	0		1,000			2,000
1.3	Business Facilities and Equipment			13,750	0	0	1,000	0	0	14,750
	Generator	2,000	1	2,000						2,000
	CCTV Camera system	3,000	1	3,000						3,000
	website design costs	2,000	1	2,000						2,000
	Telecom equipment		1	5,000						5,000
	TV - 15" Sonny	1,000	2	1,000			1,000			2,000
	Music system/Theatre	500	1	750						750
1.4	Furniture, Equipment & furnishings			10,500	0	0	7,500	0	0	18,000
	Computers/electronic equipment	1,000	8	8,000	0	0		0	0	8,000
	Office Furniture, Equipment, Tools and accessories	2,500	1	2,500			7,500			10,000
1.5	Vehicles	10000	1	2,000	0		8,000			10,000
2	Preliminary Expenses	2000	1	2,000	0	0	0	0	0	2,000
3	Working Capital			61,142			0	0		61,142
Total Investment				110,392	0	0	17,500	0	0	127,892

5.0 Raw Materials Requirements

There are no major raw materials required for this business profile except packaging as there is no actual production of goods except the items that may be purchased on order by the customers and this is illustrated in the table below;

6.0 Direct Production/Purchase Costs

Purchases		Year1	Year 2	Year3	Year 4	Year 5	Total
	Cost	189,787	379,573	759,147	1,897,867	3,036,587	6,262,960
Furniture	800.0	80,000	160,000	320,000	800,000	1,280,000	2,640,000
Fashion, Health and Beauty	50.0	12,167	24,333	48,667	121,667	194,667	401,500
Computing	685.0	34,250	68,500	137,000	342,500	548,000	1,130,250
Phones and Tablets	465.0	23,250	46,500	93,000	232,500	372,000	767,250
Home Appliances	500.0	25,000	50,000	100,000	250,000	400,000	825,000
Office Appliances	300.0	15,000	30,000	60,000	150,000	240,000	495,000
Packaging	0.4	120	240	480	1,200	1,920	3,960

7.0 Market Analysis

There is an increasing use of online shopping sites in Uganda due to the tedious and time consuming nature of making purchases physically and this has made online shopping profitable with companies like Jumia, Masikini and Bazebo, to mention but a few dominating the market and due to the increasing rates of online presence in Uganda, the online shopping business is very profitable and can accommodate more online shops. The online shop investment profile will be successful if it is able to capture the market and this can be done through intensive advertising and promotions such as discount days or periods and through having a variety of suppliers for a variety of high quality products at relatively low prices.

8.0 Project Staff And Overhead Costs

Fixed costs will amount to an estimate of $55,000 in the first year of operation and will increase slightly due to the increase in production rate by year 5 to $79,000 as illustrated in the tables below. These costs comprise of utilities, wages, stationary and fuel, to mention but a few. A summary of the project staff and overhead costs is presented below.

Personnel and Labour Costs (In US$)

	Yearly Cost	Year1	Year 2	Year3	Year 4	Year 5	Total
Salaries and Wages estimate	11	31,800	31,800	31,800	38,400	38,400	172,200
Managers	1	7,200	7,200	7,200	7,200	7,200	36,000
Computer operators	5	18,000	18,000	18,000	18,000	18,000	90,000
Drivers	1	1,920	1,920	1,920	3,840	3,840	13,440
Marketing officer*	3	3,600	3,600	3,600	7,200	7,200	25,200
Store manager	1	1,080	1,080	1,080	2,160	2,160	7,560
Office expenses		5,500	5,500	5,500	6,000	6,000	28,500
Utilities		13,100	17,100	18,600	18,600	18,600	86,000
Communication and Advertising		4,500	7,000	13,000	13,000	16,000	53,500
Total		**23,100**	**29,600**	**37,100**	**37,600**	**40,600**	**168,000**

9.0 Sources Of Raw Materials

- Branded Packaging-Nasser Road Kampala
- Electronics-Hisense, Portbell road Kampala, Appliance world, Portbell road Kampala, Simba Telecom, Kampala road, Bombo Road, Kampala
- Health, fashion and beauty products- Capital Centre Kikuubo Kampala, Nabukeera Complex, Kikuubo Kampala.
- www.amazon.com

10.0 Government Facilities And Incentives Available

The government has invested in infrastructure particularly road infrastructure and this has made it easier, faster and cheaper for customers to access their products after ordering them online as delivery is easier and faster. Infrastructure development has also improved trade and this had led to availability of a variety of different products from different categories.

Table 10 - Projected Profit and Loss Account (in US$)

Activity		Year 1	Year 2	Year3	Year 4	Year 5	Total
Revenue		**235,480**	**468,958**	**930,917**	**2,316,792**	**3,702,667**	**7,654,814**
1	Furniture Revenue	96,000	192,000	384,000	960,000	1,536,000	3,168,000
2	Fashion, health and beauty revenue	15,817	31,633	63,267	158,167	253,067	521,951
3	Computing	41,100	82,200	164,400	411,000	657,600	1,356,300
4	Phones and tablets	29,063	58,125	116,250	290,625	465,000	959,063
5	Home appliances	31,250	62,500	125,000	312,500	500,000	1,031,250
6	Office appliances	17,250	34,500	69,000	172,500	276,000	569,250
7	Miscellaneous Income (000'U$)	5,000	8,000	9,000	12,000	15,000	49,000
Cost of Goods Sold		189,787	189,787	189,787	189,787	189,787	189,787
Gross Profit		45,693	279,171	741,130	2,127,005	3,512,880	7,465,027
Operating Expenses:							
Personnel and Labour Costs		31,800	31,800	31,800	38,400	38,400	172,200
Business Overhead and Admin. Costs		27,230	33,730	42,130	42,788	45,953	191,831
Depreciation Expenses		9,938	8,961	8,150	10,251	9,226	46,526
Total Operating Expenses		68,968	74,491	82,080	91,439	93,579	410,557
Net Profit(Loss) before Tax		(23,275)	14,894	89,690	327,487	572,501	981,297

Taxation(30%)	0	4,468	26,907	98,246	171,750	294,389
Net Profit/(Loss) After Tax	(23,275)	10,426	62,783	229,241	400,751	686,908

11.0 Assumptions

- Production is carried out for 365 days in a year
- The figures financials provided are in USD
- The going dollar rate is UGX 3,800/ $1

12.0 Reference List

- www.alibaba .com
- https://en.wikipedia.org/wiki/Online_shopping

2.3.3 Car Tracking Services

1.0 Introduction

Due to the increasing number of vehicle theft cases in Uganda, there is need to devise measure to prevent the rapid growth of the problem. A vehicle tracking system combines the use of automatic vehicle location in individual vehicles with software that collects these fleet data for a comprehensive picture of vehicle locations. Modern vehicle tracking systems commonly use GPS or GLONASS technology for locating the vehicle, but other types of automatic vehicle location technology can also be used. Vehicle information can be viewed on electronic maps via the Internet or specialized software. Urban public transit authorities are an increasingly common user of vehicle tracking systems, particularly in large cities.

2.0 Production Capacity and Process

The production capacity will be determined by the number of customers whose cars will be tracked and these will be expected to be about 10 daily, in the first year of operation. There is no production in the car tracking services business rather the monitoring of locations and other information about the cars being tracked from a desktop with authorization from customers for a monthly fee which is compounded from the daily fees.

3.0 Scale Of Investment Capital Requirements And Equipment

The capital requirement for this Scale of investment is estimated at USD 70,000 spread over the first 5 years and it is expected to yield revenue of about USD 1,000,000 in the same time period. Very little equipment will be required as there will be no production carried out however items like CCTV cameras, desktops to monitor tracked vehicles and tracking devices will have to be procured. The Capital expenditure is expected to be financed using 100% equity due to the small amount of capital required and this expenditure is expected to be done within a five year period as illustrated in the Investment Programme below;

4.0 5-Year Investment Programme

	Capital Investment Item	Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Fixed Assets			58,200	0	0	13,000	0	0	71,200
1.1	Land	3,500	5	17,500	0	0	0	0	0	17,500
1.1.1	Office lease hold	3,500	5	17,500						17,500
1.2	Building works &development			15,000	0	0	0	0	0	15,000
	office development	5,000	1	5,000						5,000

	Office space outdoor designing	10,000	1	10,000						10,000
1.3	Site equipment			9,700	0	0	0	0	0	9,700
	Generator (with Silencer)	5,000	1	5,000						5,000
	Real time GPS Tracking equipment and software	3,000	1	3,000						3,000
	Telecom equipment	1,000	1	1,000						1,000
	Tv - 50" Sonny	700	1	700						700
1.4	Furniture, Equipment/ furnishings			8,000	0	0	5,000	0	0	13,000
	Computers/electronic equipment	1,000	10	5,000	0	0	5,000	0	0	10,000
	Office Furniture, Equipment, Computers, Tools/ accessories			3,000						3,000
1.5	Vehicles	8000	2	8,000			8,000			16,000
2	Preliminary Expenses			2,000	0	0	0	0	0	2,000
3	Working Capital			15,640			0	0		15,640
TOTAL INVESTMENT				**75,840**	**0**	**0**	**13,000**	**0**	**0**	**88,840**

5.0 Raw Materials Requirements For 12 Months

The major direct raw material for this investment is the tracking devices which will be installed in the motor vehicles of the clients. In the first year, we may require an average of 360 GPS trackers and this will be expected to grow to 3,600 by year 5. Other raw materials may include tracking servers. The table below illustrates expenditure on direct raw materials by years;

Purchases	**Yearly Cost**	**Year1**	**Year 2**	**Year3**	**Year 4**	**Year 5**	**Total**
	(Cost/ Sales)	6,000	21,900	36,500	58,400	73,000	195,800
GPS Car trackers	20	7,300	21,900	36,500	58,400	73,000	

6.0 Market Analysis

There is potential market for the car tracking services in Uganda due to the increasing number of motor vehicles imported every year. Vehicle ownership has increased from 6 vehicles per 1000 people in 2004 to 8 people per 1000 vehicles in 2008.Security experts around the country advice owners of vehicle in whatever numbers to adopt car tracking services and install GPS device trackers to minimize car theft and all forms of organized crime. There is need to adopt efficient marketing and advertising strategies to win trust in the market by offering guarantees to clients with you sign contracts. There are few tracking services providers in Uganda such as 3d Tracking and this leaves a gap as motor vehicles are increasing in Uganda at a very fast rate as stated earlier which makes provision of car tracking services a profitable venture

7.0 Product Costs And Revenues In Us$

Fixed costs will amount to an estimate of $55,000 in the first year of operation and will increase slightly due to the increase in production by year 5 to $80,000.The business requires setting up a solid website and effectively manage it to win trust among prospective clients and inform about the services offered, advertising on televisions, radio stations, sending brochures to corporate organizations, agencies and NGOs to inform them about the services, payment of bills for utilities such as water, electricity, internet services and television subscriptions per month. The table below illustrates the expected expenditure on indirect costs over the 5 year period

Expenditures/Costs	**Year1 US$**	**Year 2 US$**	**Year3 US$**	**Year 4 US$**	**Year 5 US$**	**Total**
Salaries and Wages estimate	33,960	33,960	33,960	54,240	54,240	210,360
Office Overheads and Administration Costs	24,732	24,732	24,807	27,085	28,668	123,658
Depreciation Expenses	10,038	9,018	8,170	7,463	9,472	44,160
Total	**68,729**	**67,709**	**66,936**	**88,788**	**92,380**	**384,543**

8.0 Sources Of Supply Of Machinery And Equipment And Raw Materials

- Shenzhen Cantrack Technology Co., Ltd.
- Office requirements- Footsteps furniture Ltd, Jinja Road Kampala
- Motor vehicles-Be Forward Uganda Ltd, Jinja Road Kampala
- Computers and servers-Kazinga Channel Office world

9.0 Government Facilities And Incentives Available

The Government of Uganda through the Ministry of ICT and National Guidance provides tax incentives to individuals who innovate modern techniques to solve existing problems in the market. For example, while importing devices that aim at improving the level of technology in country like GPS device trackers.

10.0 5 Year Profitability Analysis

Profitability is expected to achieved in the second year of production with profits of about US$ 12,000 and this will be expected to hit US$ 170,000 by year 5 as illustrated in the 5 year profit and loss statement below;

Projected Profit and Loss Account (in US$)

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue	40,986	106,845	172,704	263,436	409,860	993,831
1 Car tracking device installation	8,760	26,280	43,800	70,080	87,600	236,520
2 Car tracking services	32,226	80,565	128,904	193,356	322,260	757,311
Cost of Goods Sold	7,300	21,900	36,500	58,400	73,000	197,100
Gross Profit	33,686	84,945	136,204	205,036	336,860	796,731
Operating Expenses						
Personnel and Labour Costs	33,960	33,960	33,960	54,240	54,240	210,360
Business Overheads and Admin. Costs	24,732	24,732	24,807	27,085	28,668	130,023
Depreciation Expenses	10,038	9,018	8,170	7,463	9,472	44,160
Total Operating Expenses	68,729	67,709	66,936	88,788	92,380	384,543
Net Profit(Loss) before Interest and Tax	-35,043	17,236	69,268	116,248	244,480	412,188
Development Loan Interest Expense	0	0	0	0	0	0
Net Profit/(Loss) before Tax	-35,043	17,236	69,268	116,248	244,480	412,188
Taxation(30%)	-10,513	5,171	20,780	34,874	73,344	123,656
Net Profit/(Loss) After Tax	-24,530	12,065	48,487	81,373	171,136	288,531
Annual Return on Investment(After Tax)	-44%	26%	128%	92%	193%	
Average Annual Return On Investment		79%				

11.0 References

- www.alibaba.com
- www.wikipedia.com
- https://tradingeconomics.com

12.0 Assumptions

- Production costs assumed 365 days per year and 30 days per month
- The valuation currency used is United States Dollars.
- The exchange rate is UGShs 3,800 per US$ 1

2.4 MINERAL BENEFICIATION

2.4.1 Briquettes Making

1.0 Introduction

A briquette is a compressed block of coal or other combustible biomass material such, sawdust peat, or paper used for fuel or kindling to start a fire. Briquettes are used to replace the use of other non-renewable fuels like firewood, corn cobs, furnace oil etc .Biomass briquettes are made of waste materials which leads to the promotion of environmental sanitation and preservation.

2.0 Product Description

Since 2015, Afribanana products ltd (ABP) is promoting consumption and production and production of mainly banana waste based charcoal briquettes in Uganda mainly in the cities of Mbarara and Kampala. Though demand of this product was still very low, but the company managed to sensitize the public about the importance of waste material other than dumping it to waste. According to the survey made in countries like Kenya, India and middle Asia, briquettes are increasingly on a high demand because of the quick awareness policy and the fast growing technology that is used in manufacturing this product. There are very few producers of briquettes across the country and this leaves an open market for new business entrants, there is an outstanding number of other fuels other than briquettes.

3.0 Targeted Production Capacity

	Year	Year1	Year 2	Year3	Year 4	Year 5
	production capacity	140,000	168,000	201,600	241,920	290,304
	rate per product	0.35	0.35	0.35	0.35	0.35
	No. of business days per year	300	300	300	300	300

4.0 Process of Making Briquettes.

Waste materials like banana fiber, leaves, coffee husks and others are collected and tested for their chemical composition to decide on their suitability and come up with a proper mixture and the quantity content.

The material is tested for moisture content which must be approximately between 8 to 12% and below that temperature; it is put into a double shaft dryer for drying.

Material is then screened, chopped and grounded using a wheel roller grinder and it is burnt using a burning mixer to get the desired powder and bulk density and is pneumatically transported into a charcoal dust machine.

The powder from the vibrating machine is discharged to the rotary drum dryer through regulated conveyers where it designed dies.

It is then discharged to the honey comb briquetting machine where it is compressed to a higher temperature, softening some of the inherent binders in it, which come to the surface and bind the material together hence shaping.

Briquettes formed are in the shape of logs or pallets which are forced through tracks for proper shaping and cooling.

Cooled briquettes are cut and packed in bags or stored in bulk for shipment or use.

5.0 Business Technology.

The manufacturing of the briquettes doesn't require sophiscated technology and as far as the necessary equipment and the necessary labour is available then the necessary operations are due to take place.

6.0 Targeted Scale of Investment

The investment table below shows the fixed assets, machines to be used, facilities to be constructed and the equipment to be used in the production process of briquettes. It further more shows the costs of those equipment and facilities. The cost is projected for over five years.

Capital Investment Items		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	Fixed Assets			19,230	-	0	0	0	0	15,230
1.1	Land	6,000	2	6,000	-	0	0	0	0	6,000
1.1.1	Land Concession	5,000	1	5,000						5,000
1.1.2	Site preparation & development	1,000	1	1,000						1,000
1.2	Building works & development			2,530	-	0		0	0	2,530
	Rooms Construction	1,000	2	2,000	-					2,000
	wash rooms	500	1	500						500
	Walkways	10	3	30						30
1.3	Facilities and Equipment			4,700	-	0		0	0	4,700
	Generator (with Silencer)		1	500						500
	honey comd briquette machine		1	1,000						1,000
	double shaft machine			850						850
	Water Pump		1	750						750
	charcoal dust machine		1	1,100						1,100
	wheel roller mixture		1	500						500
1.4	Furniture, Equipment & furnishings			2,000	-	0	0	0	0	2,000
	Office furniture, Equipment, Computers, Tools/ accessories			2,000						2,000
1.5	Vehicles		2	4,000	-		0			0
2	Preliminary Expenses			100	-	0	0	0	0	100
3	Working Capital			1,365			0	0		1,365
TOTAL INVESTMENT				**20,695**	**-**	**0**	**0**	**0**	**0**	**16,695**

7.0 Raw Materials Requirements.

Details	daily unit qty	daily unit price	Year1	Year 2	Year3	Year 4	Year 5
no of days of production			*300days*	*300days*	*300ays*	*300days*	*300days*
Purchases			**29,700**	**35,640**	**42,768.0**	**51,322**	**61,586**
banana fibre	200	6	1,800	2,160	2,592.0	3,110	3,732
rice husks	200	10	6,000	7,200	8,640.0	10,368	12,442
coffee husks	200	15	13,500	16,200	19,440.0	23,328	27,994
gum	10litres	2	6,000	7,200	8,640.0	10,368	12,442
charcoal dust	2bags	4	2,400	2,880	3,456.0	4,147	4,977

8.0 Market Analysis.

The Switch Africa Green (SAG), supports this project and is currently working with 18 micro, small and medium enterprises (MS&MEs) each with an average number of 20 members. Almost 65% of these members are youth and 35% are women. According to the current market of briquettes, they are highly demanded in other countries mostly India and some western Arabic countries. Domestically, the business person would target 10% of the market since almost 75% use charcoal because they are unaware of the use of briquettes as an alternative to charcoal and the remaining 15% use firewood and other fuels.

9.0 Business Overhead Costs

Activity	*Baseline*		Year1	Year 2	Year3	Year 4	Year 5
Personnel and Labour Costs	5		6,800	8,160	9,792.0	11,750	14,100
Building repairs & maint'nce(4% of cost)			101	121	145.7	175	210
Furnishing Repairs & Maint.(10% of cost)	10.0%		200	240	288.0	346	415
Audit fees			1,500	1,800	2,160.0	2,592	3,110
Transport and fuel			200	240	288.0	346	415
Stationery			100	120	144.0	173	207
Energy			3,200	3,840	4,608.0	5,530	6,636
Water			1,000	1,200	1,440.0	1,728	2,074
Fuel & Generator maintenance.			500	600	720.0	864	1,037
Communication			50	60	72.0	86	104
Depreciation Expenses			1,955	1,574	1,277.6	1,046	864
Total Operating Expenses			***15,606***	***17,955***	***20,935.4***	***24,635***	***29,171***

10.0 Sources Of Supply Of Machinery

- The machines can be purchased online from the following websites.
- www.alibaba.com
- www.zzdcmac.com
- www.lehrafuel.com,India.

11.0 Government Facilities And Incentives Available.

The government of Uganda has set out tax exemptions for the small scale industries started by Ugandans; it has also advocated for short and long term loans at relatively lower interest rates as well basic infrastructure mainly roads so as to enable easy transportation of raw materials and finished products**.**

12.0 5-Year Profitability Analysis

Activity	Year1	Year 2	Year3	Year 4	Year 5
Revenue	49,000	58,800	70,560	84,672	101,606
Cost of Goods Sold	29,700	35,640	42,768	51,322	61,586
Gross Profit	19,300	23,160	27,792	3,350	40,020
Operating expenses					
Personnel & Labour	6,800	8,160	9,792	11,750	14,100
Business Overheads & Admin expense	6,851	8,221	9,866	11,839	14,207
Depreciation	1,955	1,574	1,278	1,046	864
Totoal Operating Expenses	15,606	17,955	20,935	24,635	29,171
Total Profit Before interest & Tax	3,694	5,205	6,857	8,715	10,849
Taxation (30%)	1,108	1,561	2,057	2,615	3,255

Net Profit/ (Loss) after Tax	**2,586**	**3,643**	**4,800**	**,101**	**7,595**

The average rate of return on investment is 29% and the payback period for the initial investment is in Year 5

13.0 Assumptions

- Assuming 300 working days in a year.
- Assuming the dollar rate at 3700shs per 1 us dollar
- The growth rate of the business operations is 20%

2.4.2 Making Clay Tiles

1.0 Introduction

The business idea of manufacturing clay roof tiles is targeting to sell the finished products to individuals and companies dealing in construction of homes, hotels, hospitals and other structures that require roofing materials. Roof tiles are designed mainly to keep out rain, and are traditionally made from locally available materials such as terracotta or slate. Modern materials such as concrete and plastic are also used and some clay tiles have a waterproof glaze. This Investment profile will also include manufacture of other clay products so as increase the range of products in order to attract more customers and hence increase on the level of profitability of the investment profile. Such products include clay bricks, floor tiles, wall partitioning bricks, ventilators, suspended floor units and decorative grills.

2.0 Production Capacity, Technology And Process Description

The projected quantity to be produced is based on the projected demand which is in turn based on the current market size for clay products. This demand will be 1,500,000 pieces for all products in total (clay bricks, floor tiles, wall partitioning bricks, ventilators, suspended floor units and decorative grills) in year 1 and will be expected to double to 3,000,000 pieces from year 5 to the increase in size of market share which will be gained through intensive marketing and low priced quality products.

The process of making clay tiles involves a series of specialized processes that turn clay from the ground into durable construction products. The most important raw material is clay so the business needs to own a dedicated quarry close to the factory where to extract the clay from This will be done through securing a long term lease of preferably 25 years. After obtaining the clay, the following is done;

- Prepare the extracted clay by grinding and milling to achieve consistency and homogeneity in particle size.
- At this stage additives such water at mixed with clay.
- The clay is then pressed in custom designed moulds to create new shapes and features that make the tiles unique.
- The shaped products are then stacked on reusable metal pallets and then transported to the shelves to dry for between 4 to 45 hours depending on the type of the product to lose the moisture content and prepare the shapes for firing.
- The products are transferred to a kiln where they are fired in the range of 1000 to 1100 0Cto establish the inherent durability, strength and fire resistance associated with clay products.

3.0 Capital Investment Requirements And Equipment In US$

The capital for the Scale of investment is estimated at USD 730,000 over 5 years and it includes payment

for a 25 year lease for land for clay extraction. This investment is expected to yield an estimated annual amount of USD 5,000,000 over the same time period. 70% of the capital investment will be financed by the owners equity with 30% financed through loan financing. Equipment will be a labour based with the machinery doing most with the assistance of human labour to operate them during processes like baking and moulding. Capital Investment will be carried out over a5 year period as illustrated in the investment program below;

Table 1.2 - Investment Programme

Capital Investment Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Fixed Assets			659,125	0	0	70,625	0	0	729,750
1.1	Land	15,000	3	515,000	0	0	15,000	0	0	530,000
1.1.1	Land Concession	10,000	2	10,000			10,000			20,000
1.1.2	Site Preparation & development	5,000	1	5,000			5,000			10,000
	25 year lease for clay	20,000	25	500,000						
1.2	Building works & development			50,000	0	0	30,000	0	0	80,000
	Construction off office block	20,000	1	20,000	0					20,000
	Processing Shelter Construction	30,000	2	30,000			30,000			60,000
1.3	Processing Facilities & Equipment			59,000	0	0	8,000	0	0	67,000
	Kiln firing machine	27,000	1	27,000						27,000
	Processing line	10,000	1	10,000						10,000
	Generator	5,000	2	5,000			5,000			10,000
	Water pump	3,000	2	3,000			3,000			6,000
	Moulding machines	2,000	7	14,000						14,000
1.4	Furniture, Equipment/Tools			15,125	0	0	7,625	0	0	22,750
	Metal pallets	1	1000	625	0	0	625	0	0	1,250
	Clay Processing tools (H0es, wheel barrows, spades)	10,000	1	5,000			5,000			10,000
	Office Furniture, Equipment, Computers, ools/Accessories	10,000	1	8,000			2,000			10,000
	Front office designs		1	1,500						1,500
1.5	Vehicles	10000	3	20,000	0		10,000			30,000
2	Preliminary Expenses			3,000	0	0	0	0	0	3,000
3	Working Capital			49,762						49,762
Total Investment				**711,887**	**0**	**0**	**70,625**	**0**	**0**	**782,512**

4.0 Raw Materials Requirements For 12 Months

The major direct raw materials for production of clay products are clay and this will be acquired through acquisition of a 25 year lease for land with abundant clay resources. This will bring down costs of direct raw materials as purchase and transportation of clay on a daily basis will be extremely costly. This cost of raw materials (25 year lease) will be amortized or spread over the duration of the lease. Other raw materials like water will be obtained through pumping of underground water so as to bring down the cost of production

5.0 Market Analysis

There is high demand for clay roof tiles in Uganda due to the increasing real estate developers who construct finished houses for sale targeting the middle-income population a status the Government of Uganda aims to attain by the year 2040. This demand is served by few large scale manufacturers of Clay products, the main ones being, Uganda Clays, Lweza Clays, Kajjansi Clays, Nkozi Clays and Nsangi Clays, to mention but a few.

6.0 Product Costs And Revenues In Us$

Fixed costs will amount to an estimate of $200,000 in the first year of operation and will increase slightly due to the increase in production by year 5 to $246,000 as illustrated in the tables below. These costs comprise of utilities, wages, stationary and fuel, to mention but a few.

Project Costs	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Personnel and Labour Costs	68,520	68,520	68,520	87,960	87,960	381,480
Office expenses and operational costs	90,897	89,518	89,318	119,854	120,407	509,994
Depreciation	41,616	38,152	35,287	32,911	37,739	185,703
Total	**201,032**	**196,190**	**193,124**	**240,725**	**246,106**	**1,077,177**

7.0 Sources Of Supply Of Machinery And Equipment

- The kiln firing machine can be supplied from leading manufacturers of kiln and dryer machines such as Swindell Dressler International in the United States of America.
- Delivery trucks-be forward Uganda Ltd Pioneer House, Jinja Road Kampala.
- Metal pallets-Musa Body Uganda Ltd, Katwe Kampala
- Hoes, spades and wheel barrows- Hardware world Uganda Ltd, Cheap General Hardware.

8.0 Government Facilities And Incentives Available

The government of Uganda is offering incentives for the mining sector and this includes clay mining in the form of reduced income tax rates, Tax deductions based on start up costs, tax deductions on imports and domestic taxes, to mention but a few.

There are incentives that accrue to investors or factories that mine their raw materials such as acquisition of land where the natural resources occur at a lower price.

9.0 5-Year Profitability Analysis

With the production expected to be at 1,500,000 pieces of products in year 1 and doubling by year 5, this investment profile will earn a profit of about US$ 2,700,000 in the first 5 years of production. This will be achieved by adding high profit margins of about 200% to the extremely low unit production costs which are as low as US$ 0.1 so as to obtain large profits that make the large initial capital investment of the 25 year lease of the clay mining land worthy as illustrated in the 5 year profit analysis table illustrated below;

Projected Profit and Loss Account (in US$)

Activity		Year 1	Year 2	Year3	Year 4	Year 5	Total
Revenue		691,297	790,652	895,008	1,280,382	1,316,722	4,974,060
1	Roofing tiles	85,162	127,743	127,743	170,324	170,324	681,297
2	Clay bricks	85,162	106,453	127,743	170,324	170,324	660,006
3	floor tiles	70,968	70,968	106,453	141,937	177,421	567,747
3	Wall and partitioning bricks	141,937	177,421	177,421	212,905	283,874	993,558
5	Ventilators	14,194	14,194	28,387	28,387	28,387	113,549
6	Suspended floor units	255,486	255,486	255,486	383,229	383,229	1,532,917
7	Decorative grills	28,387	28,387	56,775	56,775	85,162	255,486
8	Miscellaneous Income (000'U$)	10,000	10,000	15,000	116,500	18,000	169,500
Cost of Goods Sold		0	0	0	0	0	0
Gross Profit		691,297	790,652	895,008	1,280,382	1,316,722	4,974,060
Operating Expenses							
	Personnel and Labour Costs	68,520	68,520	68,520	87,960	87,960	381,480
	Business Overheads and Admin. Costs	90,897	89,518	89,318	119,854	120,407	509,994
	Depreciation Expenses	41,616	38,152	35,287	32,911	37,739	185,703
Total Operating Expenses		201,032	196,190	193,124	240,725	246,106	1,077,177
Net Profit(Loss) before Interest and Tax		490,264	594,463	701,884	1,039,657	1,070,616	3,896,883
Development Loan Interest Expense		0	10,191	16,820	12,071	7,322	46,404
Net Profit/(Loss) before Tax		490,264	584,272	685,064	1,027,586	1,063,294	3,850,480
Taxation(30%)		147,079	175,281	205,519	308,276	318,988	1,155,144
Net Profit/(Loss) After Tax		343,185	408,990	479,545	719,310	744,306	2,695,336
Annual Return on Investment(After Tax)		55%	70%	88%	92%	95%	
Annual Return on Investment(After Tax)		80%					

10.0 Assumptions

1. Production costs assumed 300 days a year, 25 days a month.
2. The figures in the financials are in US Dollars
3. The exchange rate for the dollar is UGX 3,800 per US$ 1

11.0 References

1. www.nsangiclays.com
2. https://www.ugandainvest.go.ug/wp-content/uploads/2016/03/Income-Tax-rates-and-incentives-for-investors-in-the-Mining-sector.pdf
3. www.wikipedia.com
4. www.alibaba.com

2.4.3 Making Decorative Ceramic Products

1.0 Introduction

Several companies in Uganda manufacture ceramic tiles. Ceramic tiles are of two types: wall tiles and floor tiles. Ceramic tiles come in various sizes and designs. This project envisages the decoration of ceramic wall tiles by screen printing techniques.

2.0 Market & Demand Aspects

The companies manufacturing the tiles also decorate ceramic tiles. However there is niche market for decorated ceramic tiles to meet the specific needs and requirements of individual customers or contractors taking up construction of domestic and commercial buildings.

3.0 Production Capacity, technology and processes description

3.1 Production Capacity

The plant and machinery proposed in the project has a production capacity of 48,000 t of decorated ceramic tiles. At 10% utilization of the capacity, productions of 4,800 tiles for the first two years then an increase in production to 7,200 tiles in year 3, 4 and 5of decorated ceramic tiles have been taken into consideration.

3.2 Technology and processes description

Decoration of ceramic tiles by the following two techniques is envisaged in the project:

Screen Printing Technique

Nylon screens of appropriate mesh size are fitted on aluminum or wooden frames. Alternatively, screens are pre-fitted to the aluminum or wooden frames may be purchased directly from dealers supplying screen-printing materials. The desired design stencil is developed on the screen by applying a screen coating solution mixed with a photo-sensitizer. Pre-sensitized special type of films may also be used for developing the design on the screen. Ceramic colors are available with suppliers in the form of fine powders along with printing oil media. Printing oil media is either available separately to be mixed with ceramic colors and it comes readily premixed with colors from the suppliers. These ceramic colours are used for decorating the ceramic tiles using the screen-printing technique onto the surface of ceramic tiles using the above-prepared screens of desired designs.

After screen-printing with colors, the ceramic tiles, are stacked in metallic stands and heated in

an electrical furnace up to optimum temperatures (750°C to 800°C) recommended by the ceramic color manufacturers.

Heating and cooling is done gradually so that cracks are not developed in the tiles and the decorated design forms a permanent part of the tile with a smooth finish. Electrical resistance heating type furnaces are used for heating. Ceramic fiber lining is used in the furnace for electrical energy conservation purposes. Stands are made using rods of heat resistant stainless varieties to stack the ceramic tiles in the electrical furnace.

4.0 Minimum scale of investment, capital investment requirements and equipment

The minimum investment required for procurement of the capital equipment and setting up of the production facilities is $ 64,100.

Capital Investment Item		Unit Cost	Qty	Yr 0	Yr 1	Yr 2	Yr 3	Yr4	Yr5	Total
1	Fixed Assets			51,100	0	0	20,000	0	0	35,000
1.1	Land	7,000		5,000	0	0	0	0	0	5,000
1.1.1	Land Concession	5,000	1	5,000						5,000
	Site preparation &Development	2000	1	2,000						2,000
1.3	Site Facilities and Equipment			8,000	0	0	0	0	0	8,000
	Stand by generator	8,000	1	8,000						8,000
1.4	Equipment & furnishings			21,100	0	0	0	0	0	0
	Resistance heating type electrical furnace with 1 m3 heating space	8,000	1	8,000						8,000
	Electrical and EB charges for 25 kW power connection	5,000	1	5,000						5,000
	Metallic stands	4,000	1	4,000						4,000
	Screen printing frames, tools and accessories	2,000	1	2,000						2,000
	Office equipment	2,000	1	2,000						2,000
	Wheel barrows	10	10	100						100
1.5	Vehicle	1	1	15,000	0		20,000			20,000
2	Preliminary Expenses			5,000	0	0	0	0	0	5,000
3	Working Capital			8,000			0	0		8,000
Total Investment				**64,100**	**0**	**0**	**20,000**	**0**	**0**	**48,000**

5.0 Raw Materials requirements

Ceramic wall tiles are procured by the entrepreneur himself and decorated. Alternatively, they may be purchased by the building contractors and given to the unit for decorating as per the custom designs of the customers. Ceramic transfer labels, ceramic colors and printing oils are other raw materials required for the project.

6.0 Market Analysis.

There is a growing demand of dimension stone products due the ever-increasing growth rate in the construction industry (8.5% annually), both commercial and domestic, closely use decorative ceramic tiles for finishing purposes, beautifying thus creating a strong market for this business idea.

Regionally, a huge market exits in the Democratic Republic of Congo, Rwanda, Kenya and Southern Sudan, which create an incentive to any potential investor in the industry.

7.0 Projected costs (fixed capital and working capital) and revenues

	Items	Bal. C/f Yr1	Bal. C/f Yr2	Bal. C/f Yr3	Bal. C/f Yr4	Bal. C/f Yr5
1	Fixed Assets	43,680	37,579	52,549	46,390	41,140
	Land	5,000	5,000	5,000.0	5,000.0	5,000.0
	Buildings works and developments	1,900	1,805	1,714.8	1,629.0	1,547.6
	Lodge facilities and Equipment	6,400	5,120	4,096.0	3,276.8	2,621.4
	Furniture, Equipment & Furnishings	16,880	13,504	10,803	8,643	6,914

	Motor Vehicles	13,500	12,150	30,935	27,842	25,057
2	Preliminary Expenses	0	0	0	0	0
3	Working Capital	126,544,302	270,517,823	433,073,131	645,032,277	881,221,119
Net Assets		126,587,982	270,555,402	433,125,680	645,078,667	881,262,259
Financed By:						
1	Development Bank Loan	28,489	21,367	14,244	7,122	0
2	Equity Contribution	32,050	32,050	52,050	52,050	52,050
3	Revenue Reserves	126,527,443	270,501,986	433,059,386	645,019,495	881,210,209
	Total	**126,587,982**	**270,555,402**	**433,125,680**	**645,078,667**	**881,262,259**

Unit pricing and cost structure

Items	Unit	Unit Price	Gross Margin	Unit Cost
Cement based bricks of size 100*200*400 mm (No.s)	No.s	1.0	25.0%	0.8

8.0 Sources of Supply of Machinery and Equipment and Raw Materials (Address listings)

- All Equipment's, tools and other Materials can be got from the local market, however the heavy machinerty can be imported (www.alibaba.com)
- Raw materials can be locally supplied and equipment can be fabricated
- Locally by John Lugando &Co.ltd and Kisenyi- Kampala.
- Namanve stone yard on Jinja Road next to Red Pepper
- Banda Hill stone quarry

9.0 Government facilities and incentives available

The Government of Uganda put in place a Mineral Policy in 2001, whose goal is to develop the mineral sector to enable it contribute to sustainable economic and social growth by creating gainful employment and income, particularly to the rural population. Therefore as government of Uganda offers subsidized exploration licenses to companies that get involved in such a sector

10.0 Profitability for a 5 year Period

Activity	Baseline	Year 1	Year 2	Year3	Year 4	Year 5
Revenue		3,219,840	3,219,840	7,244,640	7,413,120	7,413,120
Decoratic ceramic products (tiles)		3,219,840	3,219,840	7,244,640	7,413,120	7,413,120
Cost of Goods Sold		268,800	268,800	403,200	403,200	403,200
Gross Profit	0	2,951,040	2,951,040	6,841,440	7,009,920	7,009,920
Operating Expenses						
Personnel and Labour Costs	17	29,400	29,400	29,400	38,100	38,100
Building repairs & maint'nce(4% of cost)	4%	80	80	80	80	80
Furnishing Repairs & Maint.(10% of cost)	10.0%	2,110	2,110	2,110	2,110	2,110
Audit fees		10,000	10,000	10,500	11,025	11,576
Transport and fuel		3,000	3,000	3,000	3,000	3,000
Stationery		2,000	2,000	2,000	2,000	2,000
Energy		12,000	12,000	12,000	24,000	24,000
Water		6,000	6,000	6,000	12,000	12,000
Internet		4,000	6,000	6,000	6,000	6,000
Fuel & Generator maintenance.		3,000	6,000	6,000	6,000	6,000
Communication		5,000	9,600	9,600	9,600	9,600
Gas		8,400	8,400	8,400	16,800	16,800
Depreciation Expenses		5,820	4,821	4,006	4,840	4,144
Total Operating Expenses		90,810	99,411	99,096	135,555	135,410
Net Profit(Loss) before Interest and Tax		2,860,230	2,851,629	6,742,344	6,874,365	6,874,510
Development Loan Interest Expense		0	2,349	1,893	1,358	824
Net Profit/(Loss) before Tax		2,860,230	2,849,280	6,740,451	6,873,007	6,873,686
Taxation(30%)	30%	858,069	854,784	2,022,135	2,061,902	2,062,106
Net Profit/(Loss) After Tax		2,002,161	1,994,496	4,718,316	4,811,105	4,811,580
Cummulative Net Profit(Loss) After Tax		2,002,161	3,996,657	8,714,973	13,526,077	18,337,657
	Annual Return on Investment(After Tax)		6145%	10858%	7625%	7625%

	* An annual inflation factor has been built in of	5%	for all expenses			

11.0 Assumption

1. Interest rate: 15% per annum on total capital investment is taken into consideration
2. Margin money: The promoter may bring in one-third of both fixed capital and working capital requirements.
3. Efficiency: 75% utilization of machinery and manpower has been considered.
4. Labour wages: Minimum wages applicable for semi-skilled and unskilled workers were taken into consideration.
5. Working shifts per day: It is envisaged that the enterprise will be in operation on single shift of 8 hours per day basis for 300 working days in year.
6. Implementation period: Project implementation period of 6 months is envisaged
7. Annual inflation factor has been built in of 5% for all expenses

2.4.5 Coble Stone Cutting

1.0 Introduction

Cobble stone cutting are one of the major constructions upgrading minor roads, side roads, and walkways within towns and cities. The project includes the quarry excavation, chiseling and paving activities. It has been becoming a good job opportunity for a good number of citizens because of its comparative advantages. It does not require sophisticated skill, knowledge and machineries. It is also labor-intensive involving huge number of working forces utilizing local resources.

2.0 Market Analysis

There is a growing demand of dimension stone products due the ever-increasing growth rate in the construction industry (8.5% annually), huge road construction projects in the country which closely use cobble stones cut for finishing purposes, beautifying the floor, wall cladding, landscaping and pavements thus creating a strong market for this business idea.

Regionally, a huge market exits in the Democratic Republic of Congo, Rwanda, Kenya and Southern Sudan, which create an incentive to any potential investor in the industry.

Cobblestone cutting has become a good business opportunity in Uganda where workers have involved in cutting, drilling, handling, loading, transporting, chiseling and paving activities.

3.0 Production Capacity, Technology and Processes Description

3.0.1 Production Capacity

The plant and machinery proposed in the project has a production capacity of 600,000 tones of cobblestone at full capacity. At 10% utilization in year 1, 60,000 tones of cobble stones are produced for the first two years, production increase to 120,000 tones in year 3, 4 and 5

3.0.2 Technology and processes description

Stone cutting does not have so many technicalities but it requires buying or extracting the right stone type that will not depreciate more especially during the rainy season. Stone claddings are always used for finishing and are usually 600mmx 150mm and a thickness of 15mm.Stone cutting is done by applying

mortar on the wall and the block slates are applied in line to bring out the beauty. These should be uniform and of less weight to reduce overloading that may induce it to fall.

This process is comprised of a cladding panel system as well to support the whole cladding procedure. However, there are a number of factors that should be looked at for the whole process to be successful and these include the durability of the stone, one has to know if they are comfortable with it. The placement, size and shape of the stones also matter a lot, not forgetting the height above the ground where the panel is installed. Once these and the rest are put in place the whole process is then on the right truck.

4.0 Minimum scale of investment, Capital investment requirements and Equipment

The minimum investment required for procurement of the capital equipment and setting up of the production facilities is $ 50,600

Capital Investment Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	Fixed Assets			43,600	0	0	8,000	0	0	51,600
1	Land	6,000		5,000	0	0	0	0	0	5,000
1.1.1	Land Concession	5,000	1	5,000						5,000
	site prepation and evelopment	1000	1	1,000						1,000
1	Equipment & furnishings			21,600	0	0	0	0	0	21,600
	Hydraulic Paving & Cobble Stone Cutting Machine (1 set)	15,000	1	15,000						15,000
	Hammers	50	10	500						500
	Cutting chesals (different sizes)	600	10	6,000						6,000
	Wheel barrows	10	10	100						100
	Other tools	1,000	1	1,000						1,000
2	Vehicles	8000	2	16,000	0		8,000			24,000
2	Preliminary Expenses			2,000	0	0	0	0	0	2,000
3	Working Capital			5,000			0	0		5,000
Total capital investment				**50,600**	**0**	**0**	**8,000**	**0**	**0**	**58,600**

5.0 Raw Materials requirements

Cobble Stone Manufacturing unit is proposed to be located at or near Marble Processing clusters of Karamoja region,Tororo, Osukuru , central Region, Eastern region, also where most of the marble cutting exist as the raw material to make the cobble stone is available in abundance near to processing cluster or at quarries. The proposed project will produce Cobble stone product from the quarry processing waste to sell be sold in local and international market. It will be a unique product in Uganda market as no one is producing this product at the moment. The entrepreneur will start selling from cobblestone to local market and international market, as huge demand exists for this product. This increase with passage of time and leaning and increased knowledge and clientage.

Description	Quantity	Units	Rate per Unit	Amount	Material cost/ Yr
crushed stone chips	300	tones	40	12,000	144,000.0

6.0 Market Analysis.

At 6% growth per annum, the construction sector continues to be strong and, with it, a market for a broad range of "building minerals" including sand, clay, limestone, marble, kaolin and sources of stoneaggregate There is a growing demand of dimension stone products due the ever-increasing growth rate in the construction industry (8.5% annually), both commercial and domestic, closely use decorative ceramic tiles for finishing purposes, beautifying thus creating a strong market for this business idea.

7.0 Project costs (fixed capital and working capital) and revenues

	Yearly Cost	Year 1	Year 2	Year 3	Year 4	Year 5
Direct Costs/ Purchase costs		144,000	20,500	20,800	21,000	21,500
Crushed stones chips		144,000	20,500	20,800	21,000	21,500
Personel and LabourCosts		25,150	25,150	25,150	33,200	33,200
Manager	1	4,800	4,800	4,800	4,800	4,800

Accounts Officer	1	2,400	2,400	2,400	2,400	2,400
Unkilled workers/casual labourers	5	3,250	3,250	3,250	6,500	6,500
Marketing officer*	2	4,800	4,800	4,800	9,600	9,600
Receptionist	1	1,500	1,500	1,500	1,500	1,500
Technicians	2	4,800	4,800	4,800	4,800	4,800
Field staff	2	3,600	3,600	3,600	3,600	3,600
Watch and ward	2	3,600	3,600	3,600	3,600	3,600
Overhead Costs-Utilities, Office expenses		26,385	23,011	20,432	18,453	16,930
Transport and fuel		3,000	3,000	3,000	3,000	3,000
Stationery		500	500	500	500	500
Energy*		6,000	6,000	6,000	6,000	6,000
Water*		1,000	1,000	1,000	1,000	1,000
Internet		200	200	200	200	200
Communication		200	200	200	200	200
Depreciation		15,485	12,111	9,532	7,553	6,030
Total Production Costs		**52,328**	**49,291**	**45,052**	**44,173**	**44,450**

Unit cost and Price structure

Unit Cost is assumed to be at USD 0.8 and in order to sell a unit item to be able to get a gross margin of 25%, the unit price shall be USD 1

Items	Unit	Unit Price	Gross Margin	Unit Cost
Stone dusts	No.s	1.0	25.0%	0.8

8.0 Sources of Supply of Machinery and Equipment and Raw Materials (Address listings)

- All Equipment's, tools and other Materials can be got from the local market, however the heavy machinerty can be imported (www.alibaba.com)
- Raw materials can be locally supplied and equipment can be fabricated
- Locally by John Lugando&Co.ltd and Kisenyi- Kampala.
- Namanve stone yard on Jinja Road next to Red Pepper
- Banda Hill stone quarry

9.0 Government facilities and incentives available

The Government of Uganda put in place a Mineral Policy in 2001, whose goal is to develop the mineral sector to enable it contribute to sustainable economic and social growth by creating gainful employment and income, particularly to the rural population. Therefore as government of Uganda offers subsidized exploration licenses to companies that get involved in such a sector

10.0 Profitability for a 5 year Period

Table below shows profitability analysis for a period of 5 years in USD (000)

Activity	B/line	Year 1	Year 2	Year3	Year 4	Year 5	Total
Revenue		1,800,000	1,800,000	5,400,000	8,100,000	8,100,000	25,200,000
cobble stones		1,800,000	1,800,000	5,400,000	8,100,000	8,100,000	25,200,000
Cost of Goods Sold		144,000	144,000	288,000	288,000	288,000	1,152,000
Gross Profit	0	1,656,000	1,656,000	5,112,000	7,812,000	7,812,000	24,048,000
Operating Expenses							
Personnel and Labour Costs	16	28,750	28,750	28,750	36,800	36,800	159,850
Building repairs & maint'nce(4% of cost)	4%	40	40	40	40	40	200
Furnishing Repairs & Maint. (10% of cost)	10.0%	2,160	2,160	2,160	2,160	2,160	10,800
Audit fees		10,000	10,000	10,500	11,025	11,576	41,525
Transport and fuel		3,000	3,000	3,000	3,000	3,000	12,000
Stationery		500	500	500	500	500	2,000
Energy		6,000	6,000	6,000	6,000	6,000	24,000
Water		1,000	1,000	1,000	1,000	1,000	4,000
Internet		200	200	200	200	200	800

Communication		200	200	200	200	200	800
Depreciation Expenses		5,970	4,944	4,106	4,221	3,580	22,820
Total Operating Expenses		57,820	56,794	56,456	65,146	65,056	301,272
Net Profit(Loss) before Interest and Tax		1,598,180	1,599,207	5,055,544	7,746,854	7,746,944	23,746,728
Development Loan Interest Expense		0	494	398	286	173	1,352
Net Profit/(Loss) before Tax		1,598,180	1,598,712	5,055,146	7,746,568	7,746,770	23,745,377
Taxation (30%)	30%	479,454	479,614	1,516,544	2,323,970	2,324,031	7,123,613
Net Profit/(Loss) After Tax		1,118,726	1,119,099	3,538,602	5,422,598	5,422,739	16,621,764
Cummulative Net Profit(Loss) After Tax		1,118,726	2,237,825	5,776,427	11,199,024	16,621,764	16,621,764
* An annual inflation factor has been built in of		5%	for all expenses				

Assumption

1. Interest rate: 15% per annum on total capital investment is taken into consideration.
2. Margin money: The promoter may bring in one-third of both fixed capital and working capital requirements.
3. Efficiency: 10% utilization of machinery and manpower has been considered.
4. Labour wages: Minimum wages applicable for semi-skilled and unskilled workers were taken into consideration.
5. Working shifts per day: It is envisaged that the enterprise will be in operation on single shift of 8 hours per day basis for 300 working days in year.
6. Implementation period: Project implementation period of 6 months is envisaged
7. Annual inflation factor has been built in of 5% for all expenses

2.5 MANUFACTURING

2.5.1 Liquid Soap Making

Soap is a universal product that can be found in all homes, canteen, laundries, hotels and toilets. Soaps are used for washing and bathing hence the demand for soap is hardly affected by economic meltdown due to the important role the product plays in our daily lives.

The Soap Production industry is indeed a growing and thriving sector of the economy of most countries of the world and they generate several millions of US dollars annually from several registered and licensed small – scale, medium scale and big soap production companies.

Soap making may include products like,

- Toilet Soap / Bathing Soap (Bar Soap)
- Baby Soap (Bar and liquid)
- Body Wash (Liquid Soap)
- Hand Wash (Liquid Soap)
- Dish Washer (Liquid Soap)
- Clothe Washing Soap
- Car Wash (Liquid Soap)
- Detergent, but for our discussion, we shall consider production of liquid laundry soap.

Production Capacity, Technology & Process description

a) Production Capacity

This idea aims at producing 100 jerry cans (20ltrs) per day, which translates into 2,500jerry cans per month, hence a total of 30,000 jerry cans per year.

Year	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Quantity produced (jerrycans)	30,000	30,000	40,000	40,000	40,000
Rate Per jerrycan (US$)	6.4	6.4	6.4	6.4	6.4
No. of business days per year	300	300	300	300	300

b) Process description

- **Making the Lye Solution** – The proportion of one liter lye concentrate solution is: 45% or

450ml caustic potash and 55% or 550ml of water.

Weigh the 450ml caustic potash accurately and dissolve this in 550ml water. Mix well in a pail. This is the lye solution.

Place the pail with the lye solution on a big pail containing hot water so that the solution becomes slightly warm.

Making the Soap

1. One liter of coconut oil and 560ml lye solution are mixed in the stainless steel container of the electric mixer.
2. When the mixture is slightly blended, the stainless container is transferred to the stove with continuous stirring until its temperature reaches 180Â°F.
3. The Ethylene Damien Tetra Acetic Acid (EDTA) is mixed with a little water in a separate container.
4. About 428 to 432ml of boiling water is added to the mixture while stirring continuously for about an Hour.
5. Coconut Diethanolamide (CDEA) is added to the solution to make the soap produce more suds.
6. About 2-5ml of lemon fragrance is added to the liquid soap.
7. When all of the ingredients have been thoroughly mixed, the stove and the electric mixer are switched off and the stainless steel container removed from the stove, to allow the liquid laundry soap to cool.
8. When cooled, the soap is then poured into the plastic bottle. Before using the soap, set aside for some time to let the caustic soda lose its effect. The liquid laundry soap is now ready for use.

Capital Investment Requirement

Implementing this business idea requires the following manufacturing equipment, raw materials and the packaging materials.

a) Table 1-Capital assets

This table clearly shows the main capital investment requirements needed for the business to operate and their unit costs in US $. The business idea has an initial investment of US $ 17,132.

		Unit Cost	Qty	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	TOTAL
1	Fixed Assets			13,997	0	0	5,220	0	0	19,217
1.1	working space	9,459	1	9,459	0	0	0	0	0	9,459
1.1.1	buildings	9,459	1	9,459	0	0	0	0	0	9,459
1.1.2	site preparation	0	1	0						0
1.2	Facilities and Equipment			3,898	0	0	1,166	0	0	5,064
	Electronic soap mixer	650	3	1,950			650			2,600
	Weighing scale	100	4	400						400
	Thermometer	150	6	900			300			1,200
	Boilers	108	6	648			216			864
1.3	Furniture, Equipment & furnishings			640	0	0	0	0	0	640
	Office Furniture, Equipment, Computers, Tools and accessories			640						640
1.4	Vehicles		1	0	0		4,054	0	0	4,054
1	Preliminary Expenses			135	0	0	0	0	0	135
2	Working Capital			3,000	0	0	0	0	0	3,000
TOTAL INVESTMENT				**17,132**	**0**	**0**	**5,220**	**0**	**0**	**22,352**

b) Raw materials

Table 2- Direct Purchases

This table outlines the daily purchases (raw materials) required in the daily production of liquid soap and their corresponding costs, spread over a period of 5 years of business operation. These costs may vary with changes in the production capacity.

	Daily	Year1	Year 2	Year3	Year 4	Year 5
	Cost yr1					
Purchases	(Cost/Sales)	168,000	168,000	223,440	223,440	223,440
(a) Coconut waste oils (ltrs)	240	72,000	72,000	95,760	95,760	95,760
(b) Caustic potash(ltrs)	200	60,000	60,000	79,800	79,800	79,800
(c) jerrycans	120	36,000	36,000	47,880	47,880	47,880

Damand and Market Analysis

The market is readily available across the country and also internationally, this is due to the fact that soap is a universal product that can be found in all homes, canteen, laundries, hotels, restaurants, hospitals and day cares.

However, a close study of the soap and detergent production industry reveals that the market is becoming much more competitive over the last decade. As a matter of fact, you have to be highly creative, customer centric and proactive if you must survive in this industry.

Project costs (Fixed capital, working capital and revenue)

The table below shows the total investment in fixed assets, working capital and the revenue collections from Liquid soap sales over a period of 5 years.

Table 3- Project Business Operational Costs

Personnel and Labour Costs	5,190	6,390	6,390	6,390	6,390	30,750
Office and Administration Expenses	1,228	2,228	2,228	2,228	2,228	10,140
Furnishing Repairs & Maint.(10% of cost)	64	64	64	64	64	320
Transport and fuel	1,000	2,000	2,000	2,000	2,000	9,000
Stationery	50	50	50	50	50	250
Communication	114	114	114	114	114	570
Audit fees	1,500	1,500	1,575	1,654	1,736	7,965
Utilities	5,600	5,600	6,700	6,700	6,700	31,300
Energy	1,600	1,600	1,700	1,700	1,700	8,300
Water	4,000	4,000	5,000	5,000	5,000	23,000
Depreciation Expenses	1,055	801	609	1,162	939	4,565
Total Operating Expenses	**14,573**	**16,519**	**17,502**	**18,133**	**17,993**	**84,720**

Sources of Supply of Raw materials

Raw materials are readily available in Uganda from chemical shops.

Government Facilities and Incentives Available

The Government supports industrialization in Uganda through; Tax exemptions, Land, Basic infrastructure, Grants, long term Loans and liberalized market. The manufacturers are allowed to recover their start-up cost to the tune of 25% of their expenditure in the year of income for four years and initial allowance of 50%.

Table 4-Project Profitability

This table shows the summary of the financial analysis, including the revenue collections from sale of Liquid soap, costs incurred in its line of production, taxes, with an average of 48% annual return on the investment.

Activity	B/line	Yr1	Yr 2	Yr3	Yr 4	Yr 5	Total
Revenue		192,000	192,000	256,000	256,000	256,000	1,152,000
Liquid laundry soap		192,000	192,000	256,000	256,000	256,000	1,152,000
Cost of Goods Sold		168,000	168,000	223,440	223,440	223,440	1,006,320
Gross Profit	0	24,000	24,000	32,560	32,560	32,560	145,680
Operating Expenses							
Personnel and Labour Costs	4	5,190	6,390	6,390	6,390	6,390	30,750
Audit fees		1,500	1,500	1,575	1,654	1,736	7,965
Utilities		5,600	5,600	6,700	6,700	6,700	31,300
Depreciation Expenses		1,055	801	609	1,162	939	4,565
Total Operating Expenses		14,573	16,519	17,502	18,133	17,993	84,720

Activity	B/line	Yr1	Yr 2	Yr3	Yr 4	Yr 5	Total
Net Profit(Loss) before Interest and Tax		9,428	7,481	15,058	14,427	14,567	60,960
Net Profit/(Loss) before Tax		9,428	7,481	15,058	14,427	14,567	60,960
Taxation(30%)	30%	2,828	2,244	4,517	4,328	4,370	18,288
Net Profit/(Loss) After Tax		6,599	5,237	10,540	10,099	10,197	42,672
Cummulative Net Profit(Loss) After Tax		6,599	11,836	22,376	32,475	42,672	115,958

2.5.2 Shoe Making

2.0 Introduction

Shoes are a major fashion component, and no dressing is complete without the shoes. There is a global market for shoes, which means there are so many opportunities for those who want to go into shoe manufacturing, designing, or retailing.

3.0 Production capacity

Available statistics from Uganda Bureau of Statistics show that Uganda's leather tanning industry produces about 1 million pairs of shoes, out of the 25 million pairs consumed in the country annually. In regard to this Investment profile we assume making 8,000 pairs for men, 8,000 pairs for women and 4,000 for children totaling to 20,000 pairs of shoes annually in the first year of project operation leading to total revenue of US$ 99,360 in the first year of project operation annually.

Revenue Sales Projections (In US$)

Year	Year1	Year 2	Year3	Year 4	Year 5
Targeted Market Percentage(%age sales)	60%	70%	80%	90%	100%
men's shoes in terms of pairs	26	32	38	51	58
Women's shoes in terms of pairs	26	32	38	51	58
children's shoes in terms of pairs	13	16	19	26	29
Unit price per pair of men's shoes	12	12	12	12	12
Unit price per pair of women's shoes	6	6	6	6	6
Unit price per pair of children's shoes	5	5	5	5	5
No. of business days per year	312	312	312	312	312
Estimated Revenue for men's shoes per year	57,600	84,000	115,200	172,800	216,000
Estimated Revenue for women's shoes per year	28,800	42,000	57,600	86,400	108,000
Estimated Revenue for children's shoes per year	12,960	18,900	25,920	38,880	48,600
Total Estimated revenue in a specific year	99,360	144,900	198,720	298,080	372,600

4.0 The Production Process Involved in a Shoe Line Business

The production processes involved in the shoe line business mainly for manufacturers range from design creation, getting the materials, cutting them, creating the upper and the heel through a heating and

cooling method, creating the sides and upper heel, gluing the base of the shoe, to finalizing by checking for excess glue and imperfections

Other processes not necessarily involved in the production would be packaging and distribution of the shoes to the different locations where it would be sold.

5.0 Targeted Scale of Investment, Capital Investment Requirements and Equipment.

Footwear industry especially Shoe manufacturing business needs more investment; While setting up the shoe manufacturing plant there are several equipment which must be put into consideration like: Pattern-making and cutting machinery, Upper preparation and stitching machinery, Shoe lasting machinery, Lasted shoe bottom working machinery, Finishing machinery, Components preparation machinery, Synthetic machinery and moulds, Managing handling and engineering. It takes around minimum of US $ 68,701 investment to start a footwear industry categorizing the investment profile under a medium enterprise. It has future scope and also requires more technical knowledge.

The table below gives a clear layout of the main capital investment requirements for the project in the 1st five years of project operation and their estimated costs.

Capital Investment Programme

Item	Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Fixed Assets			47,896	0	2,000	5,500	13,300	6,700	47,896
Equipment, Furniture			47,896	0	2,000	5,500	13,300	6,700	75,396
Post Machine Pfaff 595	1,400	3	4,200				1,500		5,700
Cylinder bed pfaff 335	1,000	3	3,000					1500	4,500
Sewing `machines little way contraction and repair	3,000	3	9,000					3200	12,200
Harness Stictcher	1,650	3	4,950					2000	6,950
5 in one Sole Trimmer	700	3	2,100			3,000			5,100
Fortuna Skiver	2,000	3	6,000			2,500			8,500
Leather splitter	1,000	1	1,000				4,000		5,000
Landis 88 hain stitch	613	2	1,226				1,000		2,226
Besser Lock stitch	1,500	2	3,000				1,800		4,800
smoother machine	1,650	2	3,300				2,000		5,300
cutting tools (sets)	190	8	1,520				3,000		4,520
Pneumatic Clicker press	1,800	2	3,600		2,000				5,600
Packaging machine	2,500	2	5,000						5,000
Office Requirements (Computers, Printer, Tables, Chairs, Waiting Chairs, Filing cabinets, Computer table, Cables, connectors and installation)			2703						2,703
Distribution Van	6756.8	1	6,757						6,757
Site Preparation & Preliminary expenses	1,892		1,892						1,892
Working capital	9,453		9,453						9,453
Capital Investment			68,701	0	2,000	5,500	13,300	6700	96,201

6.0 Raw Materials Requirements

The five materials most commonly used in shoe production are leather, textiles, synthetics, rubber and foam. Leather. Leather is flexible yet durable, as sturdy as it is supple, Textiles. Fabric is also quite commonly used for making shoes, Synthetics, Rubber, Foam, polyurethane, or polyvinyl chloride (PVC) compounds.

Raw Materials Requirements

Items	% on pdn	Year1	Year 2	Year 3	Year 4	Year 5
Direct Cost		56,720	82,716	113,439	209,137	271,575
Leather in sqf	5.00%	6,309	9,201	12,619	28,392	35,490
TPR Material	5.00%	1,654	2,413	3,309	7,445	9,306

Rubber	5.00%	4,720	6,883	9,439	21,238	26,548
PVC Sole	3.00%	8,942	13,041	17,885	32,193	40,241
Heel for ladies shoes	3.00%	7,124	10,389	14,248	25,647	32,059
Fittings & Decorative items eg buckles,rings, diamonds,elastic	5%	50	72	99	179	224
Threads in rolls	5%	1,391	2,029	2,782	6,260	7,825
Adhesive	5%	4,968	7,245	9,936	17,885	22,356
Colour	5%	5,962	8,694	11,923	17,885	22,356
Dye	5%	8,694	12,679	17,388	31,298	48,904
Neolite	5%	4,918	7,173	9,837	14,755	18,444
Nails	10%	497	725	994	1,490	2,236
packaging Materials	10%	497	725	994	1,490	1,863
Rubber Gaskets	10%	99	145	199	298	373
Printing Ink	10%	894	1,304	1,788	2,683	3,353

7.0 Market Analysis

With exception of a few pairs that can be exported to South Sudan, most sales can be done in Uganda to individuals and wholesale customers. And some supplies can be done to few supermarkets in Kampala. Since Bata closed its local production line, the demand for high quality shoes risen up.

8.0 Project Overhead and Administration Costs

Item Description	year 1	year 2	year 3	year 4	year 5	Total
Fuel for the vehicle	1,405	2,037	2,037	2,037	2,037	9,553
Stationery	162	162	162	162	162	810
Electricity	1,620	2,349	2,349	2,349	2,349	11,016
Water*	486	705	705	705	705	3,306
Fuel & Generator maintenance.	648	648	648	648	648	3,240
Communication	324	324	324	324	324	1,620
Total	**4,645**	**6,225**	**6,225**	**6,225**	**6,225**	**29,545**

9.0 Sources of Supply of Machinery and Equipment

Equipment can be imported from India by making online order through WWW.alibaba .com:

Addresses of Machinery and Equipment Suppliers

- Hangzhou fuyangxingye synthetic suppliers for leather
- FoshanGuozu shoes material factory
- Dongguan winner Trading co.ltd
- Dingzhou power wire mesh co. ltd

10.0 Government Facilities and Incentives Available for Foot wares:

As an entrepreneur, you would need to keep up with industry trends by becoming a member of shoe manufacturers and retailer associations, such as the American Apparel and Footwear Association, and the National Shoe Retailers Association. The organizations also help regulate the industry as well as minimize trade restraints.

11.0 5-Years Profitability Analysis

This table shows the revenue, cost of sales, operating expenses, Net profit and the return on the investment after tax

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Sales Revenue	99,360	124,200	173,880	298,080	372,600	1,068,120
cost of sales	56,720	70,900	99,259	209,137	271,575	707,591
Gross Profit	42,640	53,300	74,621	88,943	101,025	360,529
Operating Expenses						

Rent for premises	4,865	9,730	9,730	16,216	16,216	56,757
Personnel and Labour Costs	11,907	13,690	18,971	21,895	27,115	93,578
Audit fees	0	1,500	3,000	3,000	3,000	10,500
Fuel for the vehicle	1,405	2,037	4,187	4,187	4,187	16,003
Stationery	162	235	162	162	162	883
Energy	1,620	2,349	1,620	1,620	1,620	8,829
Water	486	705	705	705	705	3,306
Fuel & Generator maintenance.	648	940	648	648	648	3,532
Communication	648	470	1,405	1,405	1,405	5,333
Depreciation Expenses	14,001	10,568	8,480	7,779	8,178	49,007
Total Operating Expenses	35,742	42,224	48,908	57,617	63,236	247,728
Net Profit(Loss) before Interest and Tax	6,898	11,076	25,712	31,326	37,788	112,801
Taxation (30%)	2,069	3,323	7,714	9,398	11,337	33,840
Net Profit/(Loss) After Tax	4,829	7,753	17,999	21,928	26,452	78,961
Cumulative Net Profit(Loss) After Tax	4,829	12,582	30,581	52,509	78,961	78,961
Annual Rate of Return on Investment	11%	22%	57%	65%	82%	
Average rate of return	48%					

The Average Rate of Return is 48% and the payback period will be realized in Year 5

1. Production costs are assumed for 312 days per year with an average of daily capacity of 64 pairs of shoes per day
2. Depreciation (fixed asset write off) assumes 4-years life of assets written off as per details in the schedules
3. Direct costs include: materials, supplies and other costs that directly go into production of the product.
4. Total monthly workdays assumed are 26-days.
5. The valuation currency used is United States Dollar

2.5.3 Bakery & Confectionery

2.0 Introduction

The bakery industry has come a long way, and will continue to evolve with countless of bakers bringing creativity into the industry. The Baked foods production has been in existence for tens of centuries. In the true sense of the word, it has been around for over two thousand years. Bread and Confectionary products are a lucrative business. These, especially bread, are quite nutritive and easily preserved and shelve life can be prolonged. These are products commonly stocked almost by all provision stores. Bread is one common product on people's dining tables to a sizeable proportion of the urban and semi-urban communities and therefore enjoys a ready market.

3.0 Production Capacity

This Investment profile is mainly based on to the production of Bread and an investor can produce 62,400 loaves of a half a kilogram and 62,400 loaves of one kilogram in the first year of project operation with an annual Turnover of 70,013 in the first Year of project operation and a minimum scale of investment of 46,735 which will graduate the investment profile to be a medium enterprise. This proposal will confine itself to the production of bread, but the same equipment is used to produce all the other products except mandzi which may require some additional machines and materials.

4.0 Technology and Process Description

For bread :- Wheat flour mixed with salt, sugar, yeast, cooking fat, water and other ingredients that may be necessary and kept for fermentation. The fermented dough is divided into desired weights and sizes and molded appropriately, and left to rest for panning. This is later put into greased metal pans and kept in a proover at 38 degrees and with 88% relative humidity. The pans are finally placed in an oven and baked at varying temperatures between 205 –230 degrees Celsius.

5.0 5-Year Investment Programme in US$.

This table gives a clear layout of the main capital investment requirements for the project in the 1st five years of project operation and their estimated costs

Item	Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Fixed Assets			25,292	0	0	0	15,039	0	25,292
land	5,405	1	5,405	0	0	0	0	0	5,405
Equipment, Furniture			19,887	0	0	0	13,688	0	19,887
Electric , gas & diesel oil fuel type rotary Baking Oven	6,700	1	6,700				8,000		14,700
Dough Spiral mixer	400	2	800				800		1,600
Proover System	1,200	1	1,200						1,200
Weight balance	500	1	500						500
Doughnut stove	1,000	1	1,000						1,000
Trays	13.5	100	1350				1350		1,350
Tins (1kg-size)	0.42	100	42				42		42
Tins (1/2kg-size)	0.12	100	12				6		12
Stainless baking table	198	10	1,980				990		1,980
Slicing Machine	500	2	1000				500		1,000
Packing machine	2,703	1	2703						2,703
Mixer for flavoring syrup	450	1	450				1000		450
Generator	1,400	1	1,400						1,400
Shifter	750	1	750				1000		750
Office equipment	4,054		4,054				1351		4,054
Delivery Van	5,405	1	5,405						5,405
Site preparation & Preliminary Expenses	5,945		5,945						5,945
Working Capital			6,039						
Total Capital Investment			46,735	0	0	0	28,727	0	46,735

6.0 Raw Materials Requirements for 5 years of Project Operation

Whole wheat flour, alt, Sugar, Yeast, Improver, Water, Vanilla and cooking fat are used in making Bread, Biscuits Cakes and other bakery products.

Direct production costs (Raw Materials) in $

Description	% costs on revenue	Year1	Year 2	Year3	Year 4	Year 5
Production per year		312,000	390,000	468,000	624,000	702,000
Item		36,236	54,355	76,703	141,350	205,640
Wheat flour	5.00%	3,851	6,333	5,554	17,279	24,264
salt	2.00%	466	691	2,021	3,144	4,042
Sugar	5.00%	3,326	4,931	8,073	12,558	16,146
Yeast	5.00%	10,502	15,573	22,425	40,697	59,799
Improver	5.00%	8,367	12,406	17,865	34,883	52,324
Water	5.00%	420	623	897	1,884	2,422
Vanilla	2%	2,548	3,779	5,442	8,465	7,940
Cooking fat	2%	6,721	9,967	14,352	22,325	28,704
Packaging materials	5%	35	52	75	116	149

7.0 Market Analysis

Bread is a household item therefore has a ready market throughout the year. The market traverses the country.

Because the biggest percentage of people needs what the Bakery offers. Here are just a few places that intend selling the products to: Families (Homes), Schools (boarding house and campus), Groceries Stores, Shopping Malls, Wedding Ceremonies, Event Planners, Sport Centers, Corporate Organizations,

8.0 Project Overheads and Administration Costs

Item Description	year 1	year 2	year 3	year 4	year 5	Total
Fueel for the Delivery Van	1,405	8,432	8,432	8,432	8,432	35,133
Stationery	162	162	162	162	162	810
Electricity	1,622	3,243	3,243	3,243	3,243	14,594
Water*	486	486	973	1,622	1,622	5,189

Fuel & Generator maintenance.	324	324	324	324	324	1,620
Communication	324	324	324	324	324	1,620
Building Repairs & Maintenance	0	0	0	8,108	0	8,108
Total	**4,323**	**12,971**	**13,458**	**22,215**	**14,107**	**67,074**

9.0 Sources of Supply of Machinery and Equipment and raw materials

Equipment can be imported from India by making online order through WWW.alibaba .com ,**Zhengzhou Fusion Machinery Equipment Co.Ltd,**Nacyzhou Jiaozuo Newest Machinery Co., Ltd, CaoxianUniversalArts & Crafts Co.Ltdwhile raw materials can be easily and cheaply procured from the local market.

Government Facilities and Incentives.

There exists a liberalized trade policy. Bakery owners are allowed to import wheat tax free and process it into wheat flour and reduce the price of this major input substanciary.

Table 4 -Profitability for a 5- Years period in US $

This table shows the revenue, cost of sales, operating expenses, Net profit and return on the investment after tax

Activity	Year1	Year 2	Year 3	Year 4	Year 5	Total
Sales Revenue	70,013	103,818	149,498	232,552	298,996	854,877
cost of sales	36,236	54,355	76,703	141,350	205,640	514,284
Gross Profit	33,777	49,463	72,795	91,202	93,355	340,593
Operating Expenses						
Personnel and Labour Costs	7,296	8,269	28,215	31,463	31,463	106,706
Repairs and maintenance costs of equipment	162	162	162	1,622	3,243	5,351
Audit fees	0	1,500	3,000	3,000	3,000	10,500
Fuel for the Delivery Van	8,432	8,432	8,432	8,432	8,432	42,160
Stationery	162	162	162	162	162	810
Energy	1,405	8,432	8,432	8,432	8,432	35,133
Water	1,623	1,623	1,623	1,623	1,623	8,115
Fuel & Generator maintenance.	1,622	3,243	3,243	3,243	3,243	14,594
Communication	1,622	3,243	3,243	3,243	3,243	14,594
Depreciation Expenses	7,066	5,354	4,059	4,430	7,308	28,216
Total Operating Expenses	29,390	40,420	60,571	65,650	70,149	266,179
Net Profit(Loss) before Interest and Tax	4,387	9,043	12,224	25,553	23,207	74,413
Taxation (30%)	1,316	2,713	3,667	7,666	6,962	22,324
Net Profit/(Loss) After Tax	3,071	6,330	8,557	17,887	16,245	52,089
Cumulative Net Profit(Loss) After Tax	3,071	9,401	17,958	35,845	52,089	52,089
Annual Rate of Return on Investment	9%	22%	35%	50%	57%	
Average rate of return on Investment	35%					

Pay back shall be realized in Year 5

1. Production are assumed for 312 days per year with daily production capacity of 400 loaves of bread per day
2. Depreciation (fixed asset write off) assumes 5-years life of assets written off as per details in the schedules
3. Direct costs include: materials, supplies and other costs that directly go into production of the product.
4. Total monthly workdays assumed are 26-days.
5. The valuation currency used is United States Dollar

2.5.4 Making Sanitary Towels

1.0 Introduction About The Product.

Sanitary towels are thick soft adsorbent material pads worn by women to absorb blood during their menstrual periods for purposes of maintaining their hygiene. According to the population statistics of the world at large, females outnumber the males holding 60% and 40% respectively. Due to increasing awareness and the girl child development efforts being drummed up globally, continentally, regionally and nationally, there is increased knowledge, awareness and practices with respect to the use of these sanitary towels. Many cotton farmers are challenged with the low prices of their produce and this business idea would create demand for cotton which is local produced and is in abundance. The local sourcing of the key raw material, cotton, should enable the competitive production of the sanitary towels which will make them affordable to a bigger number of girls in the low income rural communities of the country.

2.0 Production Capacity.

Year	Year1	Year 2	Year3	Year 4	Year 5
production capacity	4,000	4,500	5,000	5,000	5,000
rate per product	11.0	11.0	11.0	11.0	11.0
No. of business days per year	300	300	300	300	300

4.0 Production process of sanitary towels.

The logical production press entails the of following activities;

a. The lint is passed through a pulverizing machine for pulp fluffing or softening of the lint;.
b. The fluffed pulp is weighed using the weighing scale and cut into a 3inch length pulp;
c. The cut pulp is pushed in the table top air mini compressor for pulp cake;
d. The wool pulp cakes are then pushed to the triple station pneumatic and manual press for back release paper placing. This prevents leakage of the pad.
e. The pulp is then gummed with a back sheet and placed in the sealing and sewing machine for stitching
f. The snaps or side sheets are placed on the stitched cotton pulp and gummed after
g. Back sheets are placed onto the side sheets for covering the gum
h. The finished cotton pads are then placed in a UV sterilizer machine for purification.
i. The cotton pads are then packed into bundles of seven or eight or even more depending on the company and a dozen or twenty four of them are placed in a packing box ready for distribution.

5.0 Technology Aspects of Making of Sanitary Towels

The production of sanitary towels is not so complicated in terms of availability of the necessary machines mostly the pulverizing machine that softens the lint into pulp. The table top mini compressor produces 1,000 pieces of sanitary pulp per hour. Most of the machines required for this investment have a maximum capacity of producing 1,000 pieces of pads per hour. This is efficient enough for the production. The set of equipment to be acquired to make the sanitary towels for the targeted production capacity and its tentative cost ae summarized in Table below.

Capital Investment Item	Unit Cost	Qty	Year 0	Year 1	Year2	Year3	Year4	Year5	Total
Pulverizing machine	1,000	1	1,000	0	0	0	0	0	1,000
Table top air mini press	1,500	1	1,500	0	0	0	0	0	1,500
Sewing machine	600	1	600	0	0	0	0	0	600
Weighing machine	150	2	300	0	0	0	0	0	300
Generator (with Silencer)	300	1	300	0	0	0	0	0	300
Water Pump	500	1	500	0	0	0	0	0	500
Telecom equipment	100	1	100	0	0	0	0	0	100
Total			**4,300**	**0**	**0**	**0**	**0**	**0**	**4,300**

4.0 Minimum Scale Of Investment

The indicative minimum scale of investment assumes that land shall be leased and a purpose-specific building structure constructed to house the sanitary towels production facility where equipment will be installed for production of the towels and relevant storage and office facilities established. A motor vehicle (Truck) will also be acquired for purposes of transporting raw materials to the production facility and distributing the finished products to the market. The investment programme over the 5-year business operations horizon is presented below.

Investment Item	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Fixed Assets	15,350	0	0	0	0	0	15,350
Land concession and development	6,000	0	0	0	0	0	6,000
Building works and development	1,050	0	0	0	0	0	1,050
Facilities and Equipment	4,300	0	0	0	0	0	4,300
Furniture, Equipment & furnishings	1,000	0	0	0	0	0	1,000
Vehicle	3,000	0	0	0	0	0	3,000
Preliminary Expenses	500	0	0	450	0	0	950
Total investment	**15,850**	**0**	**0**	**450**	**0**	**0**	**16,300**

The table shows the capital investment programme including the fixed assets, equipments and the machines to be used in the 5 year period for the production of the sanitary towels. It also contains the quantity required and their unity cost us dollars. Most of machines produce a capacity of 2000 pieces per hour.

5.0 Raw Material Requirements

Details	Units	Daily Qty	Unit Price	No. of Days	Total
Lint cotton	tone	1	25	300	7,500
Gum	liters	2	5	300	3,000
Threads	dozen	1	6	300	1,800
Release paper	kgs	2	5	300	3,000
Cover paper	kgs	2	5	300	3,000
Packing boxes	dozen	1	12	300	3,600

6.0 Market Analysis

Sanitary towels are increasingly on demand for the girl child both domestically and outside Uganda. Locally, these pads are on high demand in shops, supermarkets, schools, etc. There are over ten companies producing sanitary towels but all have market for their produce and yet access by the girl population in the country is still low. Some of these include, blue print, natracare and many others. Therefore a new producer must aim at differentiating the product to suit the customer wants. By 2010, the cost of one pack of pads was US$ 0.7 but currently it costs US$ 1, this demonstrates an increase in price arising from increase rise in demand of the product. With the research made, the price of this product will even raise more because of the increase in demand of the product. One considering investing in this business idea should aim at increasing the numbers of pads packed in one pack from at least 8 to 12 focusing on differentiating the packing material to make it easy for customers to carry because

many fear to move around with them. Currently, there are many campaigns in the socio-economy of the country to promote access to sanitary towels, these presents high prospects for expansion of the demand for sanitary towels in the country.

7.0 Sources Of Supply Of Machines And Materials.

- www.alibaba .com
- Auto Sokoni Limited, Nkuruma Road, Kampala
- Lew Dreyfus Company Uganda Limited

8.0 Projected Balance Sheet

Items	Bal. C/f Yr1	Bal. C/f Yr2	Bal. C/f Yr3	Bal. C/f Yr4	Bal. C/f Yr5
Fixed Assets	13,588	12,205	11,114	10,247	9,554
Land	6,000	6,000	6,000.0	6,000.0	6,000.0
Buildings works and developments	788	591	443.0	332.2	249.2
Sanitary Towels Production Equipment	3,225	2,419	1,814.1	1,360.5	1,020.4
Furniture, office Equipment & Furnishings	875	766	670	586	513
Motor Vehicles	2,700	2,430	2,187	1,968	1,771
Preliminary Expenses	450	855	770	693	1,573
Working Capital	2,229	3,441	14,994	7,421	7,360
Net Assets	16,267	16,501	26,878	18,361	18,487
Financed By:					
(a) Equity Contribution	15,850	15,850	16,300	16,300	16,300
(b) Revenue Reserves	417	651	10,578	2,061	2,187
Total	**16,267**	**16,501**	**26,878**	**18,361**	**18,487**

9.0 Profitability Table

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue	44,500	44,500	50,300	50,300	50,300	239,900
(a) Sanitary towels	44,000	44,000	49,500	49,500	49,500	236,500
(b) Miscellaneous	500	500	800	800	800	3,400
Cost of goods sold	21,900	21,900	19,324	19,324	19,324	101,771
Gross profit	22,600	22,600	30,976	30,976	30,976	138,129
Less: Operating expenses						
Personnel and Labour Costs	10,920	10,920	10,920	12,720	12,720	58,200
Office and Administration Expenses	9,292	8,642	8,642	8,642	8,642	30,860
Depreciation Expenses	1,813	1,428	1,177	944	763	6,123
Total Operating Expenses	22,025	20,990	20,739	22,306	22,125	95,183
Net profit/loss before interest & tax	576	1,611	10,238	8,671	8,852	42,947

The above table explains the profit and loss schedule after estimating the expenses and revenue from the profile. The average return on investment is 29% and the above profit is net profit before interest and tax.

9.0 Government Facilities And Incentives.

Government has reduced taxes on small scale industries and provides start up finances to people willing to start up business through the Be Ugandan Buy Uganda initiative. It further more advocates for reduced interest rates on the money borrowed from financial institutions so as to enhance development.

Assumptions

- One dollar is equivalent to 3800 Ugandan shillings
- All monetary value is in US dollars
- The number of working days is 300 days per year
- 15boxes containing 24pacs each having 8 pieces of sanitary pads are produced per day.

2.5.5 Making Exercise Books

1.0 Introduction

This business idea is for manufacturing and marketing of exercise books. Exercise books are stationary items required for schools, offices and other purposes. Their market structure and demand is high since they are used by all school pupils from primary to senior four. They are sold in stationary shops, markets, whole sale shops, retail shops and even on the streets.

2.0 Targeted Production Capacity, Technology and Process description

2.1 Targeted Production Capacity

Production capacity depends on the quantity of raw materials used in production process. The smallest viable unit can produce 3,000 Exercise books,(96pgs, 48pgs & 32pgs) per day, translating into 900,000Exercise books per annum. However, this idea aims at producing 10,800 books in a month, translating into129,600 books per annum.

Year	Year1	Year 2	Year3	Year 4	Year 5
Expected sales	20%	20%	40%	60%	60%
Exercise books of 32pgs	43,200	43,200	54,000	72,000	90,000
Exercise books of 48pgs	43,200	43,200	54,000	72,000	90,000
Exercise books of 96pgs	43,200	43,200	54,000	72,000	90,000
Rate Per book (US$)	0.270	0.270	0.270	0.270	0.270
No. of business days per year	300	300	300	300	300

2.2 Process Description

The production process involves ruling of lines on the paper in red & blue ink, folding of paper, cutting of paper, cutting of outer cover, printing of outer cover, folding of the outer cover & stitching of cover and pages, Inspection and packing.

3.0 Capital Investment Requirement

The table below clearly shows the main capital investment requirements needed for the business to operate and their unit costs in US $.

Table 1-Capital Investment Programme

Capital Investment Item		Unit Cost	Qty	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	TOTAL
1	Fixed Assets			14,822	0	0	4,054	0	0	18,876
1.1	Working Space	500	1	500	0	0	0	0	0	500
1.1.2	site preparation and development	500	1	500	0	0	0	0	0	500
1.2	Equipment and Furniture	14,322		14,322	0	0	4,054	0	0	18,376
	Double side disc machine	4,054	1	4,054						4,054
	Paper and board cutting machine	2,702	1	2,702						2,702
	Wire stitching machine	1,621	1	1,621						1,621
	Working tools(tables, chair)	540	1	540						540
	Offset printing machine with electronic accessories	5,405	1	5,405						5,405
1.3	Vehicles	4054	1	0	0	0	4,054			4,054
1.4	Preliminary Expenses	135		135	0	0	0	0	0	135
1.5	Working Capital	1500		1,500						1,500
TOTAL INVESTMENT				**16,457**	**0**	**0**	**4,054**	**0**	**0**	**20,511**

4.0 Raw materials requirement

Table 2-Direct purchases

	Daily	Year1	Year 2	Year3	Year 4	Year 5
	Cost					
Purchases	(Cost/Sales)	12,237	13,659	22,782	41,733	41,733
(a) Reams of paper (A3)	12.6	3,780	3,633	6,048	9,720	9,720
(b) Craft paper (covers)	25.1	7,528	8,868	14,790	28,858	28,858
(c) Printing Ink	2.6	778	972	1,633	2,877	2,877
(d) Stitching wires	0.1	30	37	62	59	59
(e) Gum	0.4	122	149	250	220	220

The above table outlines the daily purchases (raw materials) required in the daily production of exercise books and their corresponding costs, spread over a period of 5 years of business operation. These costs may vary with changes in the production capacity.

5.0 Demand and market analysis

There is ready market throughout the country as more and more children go to school. The population is heavily increasing and to match the job market, there is high demand for education in Uganda, and also the UPE and USE programme has boosted the numbers of school going children.

6.0 Project Overhead Costs

The table below shows the total investment in fixed assets, working capital and the revenue collections over a period of 5 years.

Table 3- Project Overhead Costs

Activity	Baseline	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Personnel and Labour Costs	4	3,300	4,500	4,500	5,400	5,600	23,300
Furnishing Repairs & Maint.(10% of cost)	1.0%	480	480	480	600	600	2,640
Audit fees		540	540	567	600	600	2,247
Transport and fuel		649	649	804	1,200	1,200	3,301
Rent		900	900	900	1,800	1,800	4,500
Energy		973	973	1,206	1,500	1,500	4,652
Fuel & Generator maintenance.		220	220	220	500	500	525
Communication		81	81	81	142	142	385
Depreciation Expenses		6,969	6,272	5,645	5,891	5,302	30,079
Total Operating Expenses		14,112	14,615	14,403	17,633	17,244	78,006

7.0 Source of Supply of Machinery, Equipment and Raw Materials

The supply of raw materials, Machinery and Equipment is procured locally although it could also be imported from countries like Japan, South Africa and Chain.

8.0 Government Facilities and Incentives Available

There are low tax rates and sometimes no taxes at all on most of the industrial equipment and raw materials.

The table below shows the summary of the financial analysis, including the revenue collections from sale of exercise books of different pages, costs incurred in their line of production, taxes and the annual return on the investment.

9.0 5-Year Project Profitability Analysis

This business idea is estimated to have an average annual return to investment of about 29%.

Activity	Baseline	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Revenue		34,992	43,740	58,320	72,900	72,900	282,852
Exercise books		34,992	43,740	58,320	72,900	72,900	282,852
Cost of Goods Sold		12,237	13,659	22,782	41,733	41,733	132,145
Gross Profit	0	22,755	30,081	35,538	31,167	31,167	150,707
Operating Expenses							
Personnel and Labour Costs	4	3,300	4,500	4,500	5,400	5,600	23,300
Business and Administration Costs		2,110	2,110	2,265	3,742	3,742	10,826
Utilities		1193	1193	1426	2000	2000	5177
Audit fees		540	540	567	600	600	2,247
Depreciation Expenses		6,969	6,272	5,645	5,891	5,302	30,079
Total Operating Expenses		14,112	14,615	14,403	17,633	17,244	78,006
Net Profit(Loss) before Interest and Tax		8,643.28	15,466	21,135	13,534	13,923	72,701
Net Profit/(Loss) before Tax		8,643	15,466	21,135	13,534	13,923	72,701
Taxation(30%)	30%	2,593	4,640	6,340	4,060	4,177	21,810
Net Profit/(Loss) After Tax		6,050	10,826	14,794	9,474	9,746	50,891
Cummulative Net Profit(Loss) After Tax		6,050	16,877	31,671	41,145	50,891	50,891

2.5.6 Cement Based Brick Making

1.0 Introduction

The investment profile is for the production of and marketing of cement-based products. Cement Products are more on the move nowadays with the increase in housing activity. These may include but are not limited to: Cement Blocks, pavers, Bricks, Slabs, Culverts, Manhole covers, Sculptures or Statues to mention but a few.

2.0 Market & Demand Aspects

Cement based products are used in construction of houses, schools and other public buildings and compounds.

3.0 Process Description and Production Capacity

Cement, sand, stone chips, stone dust and rods are mixed in suitable proportions along with water. This concrete mix is placed on metal or wooden moulds. For reinforcement, wire mesh or rods are placed between successive layers of Concrete mix and compacted by vibration. The cast items are kept for a day to set. They are then cured in water tank for 15 days for complete setting.

4.0 Minimum scale of investment, capital investment requirements and equipment

The table below shows the capital investment requirements for the project, which will amount to **$ 48,250**

		Unit Cost	Qty	Yr 0	Yr1	Yr 2	Yr 3	Yr 4	Yr 5	TOTAL
1	Fixed Assets			38,250	0	0	20,000	0	0	37,000
1.1	Land	7,000		5,000	0	0	0	0	0	5,000
1.1.1	Land	5,000	1	5,000						5,000
	Site preparation & development	2000	1	2,000						2,000
1.2	Site Facilities and Equipment			10,000	0	0	0	0	0	10,000
	Stand by generator		1	10,000						10,000
1.3	Equipment & furnishings			15,600	0	0	0	0	0	15,600
	Cement Block making Machine	6,000	1	6,000						6,000
	Cement mixing machine	7,000	1	7,000						7,000

	Coffee tray	1,000	1	1,000						1,000
	Vibrator	1,000	1	1,000						1,000
	Moulds	10	50	500						500
	Wheel barrows	10	10	100						100
	Other tools	1,000	1	1,000						1,000
1.4	Vehicles	5650	1	5,650	0		20,000			20,000
2	Preliminary Expenses			5,000	0	0	0	0	0	5,000
3	Working Capital			5,000			0	0		5,000
	Total Capital Investment			48,250	0	0	20,000	0	0	47,000

5.0 Raw Materials requirements

The raw material used for this business idea is sand, cement and crushed stone chips

6.0 Market Analysis.

There is a growing demand of dimension stone products due the ever-increasing growth rate in the construction industry (8.5% annually), both commercial and domestic, closely use cement based bricks for finishing purposes, beautifying thus creating a strong market for this business idea.

7.0 Project costs (fixed capital and working capital) and revenues

The table below shows working capital, fixed capital and revenues for the project

7.1		Yearly Cost	Year 1	Year 2	Year 3	Year 4	Year 5
	Direct Costs/ Purchase costs		124,800.0	21,400.0	21,700	21,900	22,400
a	Cement		4,800	20,500	20,800	21,000	21,500
c	Sand/crushed stones		120,000.0	900	900	900	900
7.2	Personel and Labour Costs		9,660	9,900	5,340	5,340	5,340
	Manager	1	1,260	1,260	1,260	1,260	1,260
	Marketing Officer	1	1,200	1,200	1,200	1,200	1,200
	Machine Operators	2	1,920	1,920	1,920	1,920	1,920
	Machine Technicians	2	1,920	1,920	1,920	1,920	1,920
	Casual Labourers	2	1,200	1,440	1,440	1,440	1,440
	Drivers	2	1,200	1,200	1,200	1,200	1,200
	Guard	2	960	960	960	960	960
7.3	Overhead Costs-Utilities, Ofiice expenses		7,150	7,080	8,480	9,380	10,680
	Transport and fuel		2,000	2,000	3,000	3,100	3,500
	Fule&Generator Maintainance		1,000	1,000	1,000	1,000	1,000
	Energy*		2,000	2,000	2,200	2,600	3,000
	Water*		2,000	2,000	2,200	2,600	3,000
	Internet		50	80	80	80	80
	Communication		100	100	100	100	100
7.4	Depreciation		9,025	6,982	5,430	4,250	3,350
	Total Production Costs		**150,635.0**	**45,361.6**	**40,950.3**	**40,870.0**	**41,769.7**

Unit Pricing and cost structure

The price in year 1 will be high due to high operational costs, and then it reduces in the subsequent years after the project breakeven

Unit Cost of Production	Year 1	Year 2	Year 3	Year 4	Year 5
Production costs	150,635.0	45,361.6	40,950.3	40,870.0	41,769.7
Quantities produced	80,000	80,000	200,000	200,000	200,000
Pricing and Cost Structure	1.9	0.6	0.2	0.2	0.2

8.0 Sources of Supply of Machinery and Equipment and Raw Materials (Address listings)

- All Equipment's, tools and other Materials can be got from the local market, however the heavy machinery can be imported (www.alibaba.com)
- Raw materials can be locally supplied and equipment can be fabricated
- Locally by John Lugando & Co. ltd and Kisenyi- Kampala.
- Namanve stone yard on Jinja Road next to Red Pepper
- Banda Hill stone quarry

9.0 Government facilities and incentives available

The Government of Uganda put in place a Mineral Policy in 2001, whose goal is to develop the mineral sector to enable it contribute to sustainable economic and social growth by creating gainful employment and income, particularly to the rural population. Therefore as government of Uganda offers subsidized exploration licenses to companies that get involved in such a sector

10.0 Profitability for a 5-year Period

Activity	Year1	Year 2	Year3	Year 4	Year 5
Revenue (Sales of Bricks)	244,000	244,000	610,000	610,000	610,000
Cost of Goods Sold	124,800	21,400	21,700	21,900	22,400
Gross Profit	119,200	222,600	588,300	588,100	587,600
Total Operating Expenses	25,835	23,962	19,250	18,970	8,690
Net Profit(Loss) before Interest and Tax	93,365.0	198,638.38	569,049.69	569,130.0	578,910
Development Loan Interest Expense	0	0	0	0.0	0
Net Profit/(Loss) before Tax	93,365	198,638.38	569,050	569,130.0	578,910
Taxation(30%)	28,010	59,592	170,715	170,739.0	173,673
Net Profit/(Loss) After Tax	65,356	139,046.9	398,335	398,391.0	405,237
Cummulative Net Profit(Loss) After Tax	65,356	204,402.4	602,737	1,001,128.1	1,406,365

Assumption

1. Interest rate: 15% per annum on total capital investment is taken into consideration
2. Margin money: The promoter may bring in one-third of both fixed capital and working capital requirements.
3. Efficiency: 10% utilization of machinery and manpower has been considered.
4. Labour wages: Minimum wages applicable for semi-skilled and unskilled workers were taken into consideration.
5. Working shifts per day: It is envisaged that the enterprise will be in operation on single shift of 8 hours per day basis for 300 working days in year.
6. Implementation period: Project implementation period of 6 months is envisaged
7. Annual inflation factor has been built in of 5% for all expenses

2.5.7 Candle Making

1.0 Introduction.

A candle is an ignitable wick embedded in wax or another flammable solid substance such as tallow that provides light, and in some cases, a fragrance. It can also be used to provide heat, or used as a method of keeping time. A candle manufacturer is traditionally known as a chandler. Candles were primarily made from tallow and beeswax in ancient times, but have been made from spermaceti, purified animal fats (stearin) and paraffin wax in recent centuries.

2.0 Production capacity, Technology and process description

a) Production capacity

This idea aims at producing 1000 candles per day, which translates into 25000 candles per month, hence a total of 300,000 candles per year. However, sometimes the production capacity depends on orders placed by customers.

Table 1 illustrates the estimated production capacity in each year.

Year	Year1	Year 2	Year3	Year 4	Year 5
Production capacity (candles)	300,000	300,000	300,000	350,000	350,000
Rate Per candle (US$)	0.135	0.135	0.135	0.135	0.135
No. of business days per year	300	300	300	300	300

3.0 Process description

The manufacturing of candles consists of three steps: preparation of the wicking, preparation of the wax base, and continuous molding or extrusion of the finished candles.

Making the wick

- The cotton or linen wicks are braided and then treated with chemicals or inorganic salt solutions so that they bend at a 90 degree angle when burning. This angle allows the end to remain in the outer mantle of the flame and causes it to be shortened naturally. If the wick is not treated, it will burn too quickly and the flame will be extinguished by the melted wax.

Preparing the wax base

- First, the wax is heated and melted into a clear, near-liquid state in huge metal kettles. Wax melted by direct flame can become dark-colored or can contain small pieces of carbon char. Next, the molten wax must be carefully filtered to remove impurities that may interfere with the burning process. Any desired perfumes and dyes are added at this time. Although most wax arriving at the manufacturer conforms to strict purity standards, many companies still filter their wax to be sure of a high-quality finished product.

Molding the candle

- Since the invention of Morgan's first candle making machine, the construction of candles has been performed mainly by continuous molding machines, although manual machines are still used by some companies. Continuous molding machines are designed to make candles in groups ranging anywhere from 50 to 500 per load. The entire process takes almost 30 minutes per load.
- Prior to the pouring of the wax, the wick is pulled through the tip of the mold. This tip has a hole in it through which the wick passes from a spool located beneath the entire molding machine. The molds, which are made of tin, have polished interior surfaces and are slightly tapered for easier ejection of the finished candle.
- The wax is cooled to slightly above its melting point and poured into a molding table located above the molds. The wax then works its way into each mold; the molds are pre-heated so the wax will flow evenly into them. After the wax is poured, a jacket around each mold is filled with cold water to speed up the solidification process. Once the wax has solidified, the finished candles are pulled upwards out of the molds, allowing the wicks to again thread through the molds in preparation for the next load of candles. The wicks are snipped, and the process begins again. Excess wax is trimmed, collected and re-used. The continuous molding process is used to make cylindrical, tapered or fluted candles as long as they can be easily ejected from the mold.

4.0 Capital Investment Requirement and Raw materials

(a) Capital Investment Requirement

Implementing this business idea requires the following manufacturing equipment, raw materials and the packaging materials.

Candle molds, Charcoal Stove, Weighing machine, Packing Machine

Table 2-capital Investment Requirement

This table gives a clear layout of the main capital investment requirements for the 5 years and their estimated costs.

Capital Investment Item		Unit Cost	Qty	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	TOTAL
1	Fixed Assets			1,972	0	0	0	4,054	0	6,026
1.1	Land	216	1	216	0	0	0	0	0	216
1.1.1	site preparation	216	1	216						216
1.3	Facilities and Equipment	355		945	0	0	0	0	0	945
	Charcoal stove	55	3	165						165
	Candle moulds	80	3	240						240
	Weighing machine	100	3	300						300
	Packaging machine	120	2	240						240
1.4	Furniture, Equipment/ furnishings			811	0	0	0	0	0	811
	Office Requirements (computer, Table, chairs, Telecom equipment)			811						811
1.5	Vehicles		1	0	0		0	4,054		4,054
1	Preliminary Expenses			135	0	0	0	0	0	135
2	Working Capital			1,000		0	0	0	0	1,000
TOTAL INVESTMENT				3,107	0	0	0	4,054	0	7,161

Table 3- Daily purchases

Table 3 shows the daily purchases/ raw materials used in production of candles, and their estimated daily costs spread over a period of 5 years.

	Daily Cost	Year1	Year 2	Year3	Year 4	Year 5
Purchases	(Cost/Sales)	32,190	32,190	32,190	37,278	37,278
(a) Wax(kgs)	88	26,250	26,250	26,250	30,618	30,618
(b) Satric acid (ltrs)	14.4	4,320	4,320	4,320	5,040	5,040
(c) Wick length(roll)	5.4	1,620	1,620	1,620	1,620	1,620
(d) Charcoal	0.01	3	3	3	3	3

b) Raw Material

The types of wax used in the construction of candles have changed greatly during the past few centuries. Today, substances are often mixed together to create stronger candles with higher melting points. In the United States, standard commercial candles usually contain 60 percent paraffin, 35 percent stearic acid, and 5 percent beeswax. Some candles contain small amounts of candelilla or carnauba waxes (from the carnauba palm) to regulate the softening or melting point of the finished wax. Beeswax candles are made of only pure insect wax and paraffin plus a small amount of stiffening wax

5.0 Demand and market Analysis

The market for candles is available throughout the year both in rural and urban areas. However, this market faces some big challenges. Candle usage frequency needs to increase to reinvigorate sales, private label products present a growing threat to branded products, and some benefits that communicate value to the consumer (i.e., long-lasting) could actually be detrimental to market growth.

Table 4-5-Year Projected Business Operational Costs

The table below shows the total investment in fixed assets, working capital and the revenue collections over a period of 5 years.

Activity	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Personnel and Labour Costs	4,700	4,700	4,700	4,700	4,700	4,700
Rent	900	900	900	900	900	900
Audit fees	405	405	425	447	469	1,682
Transport and fuel	1,000	1,200	1,200	1,200	1,200	1,200
Stationery	81	81	81	81	81	324
Energy	189	189	189	189	189	756
Water	30	30	30	30	30	120
Communication	114	114	114	114	114	456
Depreciation Expenses	338	266	210	168	215	1,197
Total Operating Expenses	**7,757**	**7,885**	**7,850**	**7,828**	**7,898**	**39,217**

6.0 Supply of Equipment and Raw materials

All the necessary equipment and raw materials required are locally available at affordable prices.

7.0 Government Incentives Available:

The government has put up youths training projects to improve on their skills in candle making and there are Non-Government Organizations based in Kampala district which support people with capital for making wax candles.

Table 5-Project Profitability

This table shows the summary of the financial analysis, including the revenue collections from sale of candles, , costs incurred in the line of production, taxes, with an average of 22% annual return on the investment.

Activity	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Revenue	40,500	40,500	40,500	47,250	47,250	216,000
Wax candles	40,500	40,500	40,500	47,250	47,250	216,000
Cost of Goods Sold	32,190	32,190	32,190	37,278	37,278	171,126

Gross Profit	8,310	8,310	8,310	9,972	9,972	44,874
Operating Expenses						
Personnel and Labour Costs	4,700	4,700	4,700	4,700	4,700	4,700
Rent	900	900	900	900	900	900
Business and Administration costs	1,195	1,395	1,395	1,395	1,395	1,980
Utilities	219	219	219	219	219	876
Audit fees	405	405	425	447	469	1,682
Depreciation Expenses	338	266	210	168	215	1,197
Total Operating Expenses	7,757	7,885	7,849	7,829	7,898	11,335
Net Profit(Loss) before Interest and Tax	553	425	460	2,144	2,074	5,657
Net Profit/(Loss) before Tax	553	425	460	2,144	2,074	5,657
Taxation(30%)	166	128	138	643	622	1,697
Net Profit/(Loss) After Tax	387	298	322	1,501	1,452	3,960
Cummulative Net Profit(Loss) After Tax	387	685	1,007	2,508	3,960	3,960

2.5.8 Making School Bags

1.0 Introduction

There is a growing potential and opportunity of growth in the bags business, and more specifically in school bags in Uganda due to the growing number of school-going children (currently at over 9 million enrolled children in primary schools)**.** School bags are one of the most important items required by the students mainly in urban and semi urban areas. At present, domestic manufacturing of school bags is so low that the demand requirement is being met through imports from other countries, which leaves good potential for investment. This idea is uniquely drawn for both the manufacturing of customized bags for schools and general market at large

2.0 Production capacity, technology and processes description

Year	Year1	Year 2	Year3	Year 4	Year 5
Projected Sales Growth		10%	20%	30%	40%
Bags per Month	500.0	550.0	660.0	858.0	1,201.2
Bags per Year	6,000	6,600	7,920	10,296	14,414
Price Per Bag (US$)	7.89	7.89	7.89	8.97	8.97
No. of business days per year	240	240	240	240	240

This business idea is premised on production and marketing of 500 bags per month which translates into 2,400 bags for the first year**.** These sales will grow by 10% per annum for the next 4 years, resulting into annual output of 14,414 bags in the 5th year. The business has a good market demand throughout the year especially at the beginning of term. This kind of investment can cost about USD 23,418 in the first trading year.

Technology

The main machines in the project are sewing machines of various types. These include an industrial sewing machine (semi-automatic), a heavy duty craftsman sewing machine, and a tape braiding machine.

Manufacturing Process

Manufacture of school bags basically involves cutting and stitching of fabrics as per given size and designs. The manufacturing process being essentially a fabrication process, the level of skills of the

cutting and tailoring staff should touch with the market trends in order to produce the quality and designs as per market requirement. The manufacturing process involves the following stages;

1. Design and pattern making: The design features and size are either supplied by the purchaser (school) or these are finalized by the manufacturer keeping in view the intended use, performance requirements and prices brackets. Once the design is finalized, the patterns are cut in pattern sheets for different components.
2. Cutting of components: The various components of bag bottom sides, top flaps, pocket etc are cut from the fabric with the help of pattern by using knife cutter. The requisite lengths of tapes for piping and straps are also cut.
3. Stitching of bags: The various cut components in fabric are stitched as per design using industrial sewing machines. The tapes and pockets are also stitched as per design. While stitching the piping is also placed along the stitched length. The slide fasteners are also stitched in the bag as per design.
4. Fixing of accessories: Various accessories like buckles in metal or plastics, labels, washers, rivets, locks and bottom lining sheets are fixed in the bags.
5. Marking, screen printing and packaging - The requisite design, trade mark and other information is then printed or pasted in the form of labels on the bags. This business idea suggests, as a marketing strategy, printing of school badges as a unique feature on the bags. This gives students of the client school a sense of belonging. Each bag is then placed in a polythene bag and then these are packed in card board cartons, ready for dispatch.

4.0 Minimum scale of investment, capital investment requirements and equipment

This kind of small scale investment can cost about USD 23,418 in the first trading year and could fully be financed by Owner's Equity. The main machinery and equipment required include an industrial sewing machine (single needle, semi automatic), a heavy duty craftsmen sewing machine, tape braiding machine**,** cutting tables, and a screen printing & label printing machine. Other equipment includes cutting tools like a knife cutter, aluminum sheets, angle scales, cutting strips, and pattern sheets

Capital Investment Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Fixed Assets			16,983	0	3,533	10,000	0	0	60,516
1.1	Manufacturing Plant			5,833		3,233				9,066
1.1.1	Industrial Sewing Machine	1,500	1	1,500						1,500
1.1.2	Craftsman Sewing Machine	500	4	1,000		1,000				2,000
1.1.3	Tape Braiding Machine	750	2	750		750				1,500
1.1.4	Cutting Tables	142	4	283		283				566
1.1.5	Cutting Tools (Knife Cutters)	350	Set	350						350
1.1.6	Screen Printing & Label Printing Machine	1,200	2	1,200		1,200				2,400
1.1.7	Generator	750	1	750						
1.2	Office Requirements			1,150	0	300	0	0	0	31,450
1.2.1	Computers	300	2	300		300		0	0	600
1.2.2	Printer & Fax Machine	150	1	150						150
1.2.3	Tables & Chairs	550	Set	550						550
1.2.4	Filing Cabins	150	1	150						150
1.3	Vehicles			10,000			10,000			20,000
1.3.1	Delivery Van			10,000						10,000
2	Preliminary Expenses			1,698	0	0	0	0	0	1,698
3	Working Capital			4,737			0	0		4,737
TOTAL INVESTMENT				**23,418**	**0**	**3,533**	**10,000**	**0**	**0**	**66,951**

A second Delivery Van would be bought in the third year to meet the deliveries demanded in the fourth year

5.0 Raw materials requirements

The main raw material for the bags is fabric which can be either imported or sourced from wholesale fabric dealers. The fabric and consumables are also purchased in bulk at competitive prices in variably directly from manufacturing mills or wholesale traders to keep down the cost of inputs. The fittings and

accessories can also be sourced from specialized shops dealing in these products within Uganda. The other raw materials that would be required are tapes that are used for side straps, back straps and piping, sewing thread, buckles (metal buckles or plastic), slide fasteners, and locks. Screen and screen printing inks are also required as raw materials for the production of the bags for printing the different designs as per client.

Material	Unit	Unit Price	Quantity/ Bag	Total (USD)
(a) Nylon Fabric	Metres	0.79	2	9,474
(b) Nylon Tape	Metres	0.26	1	1,579
(c) Buckles and Hooks	Sets	0.20	2	2,400
(e) Lining Material	Metres	0.55	1	3,300
(g) Sewing Thread	Pieces	0.53	0.5	1,579
(g) Printing Ink	Litres	8.00	0.05	2,400

6.0 Market Analysis

With the growing numbers of school-and-college-going children, the demand for these bags is on the rise. Each and every student needs a school bag for carrying books to school. The maximum life of a school bag is 1 year and invariably while graduating to next standard, children buy a new school bag and therefore the demand becomes a recurring demand. Hence, there is a ready market for neatly stitched bags. Presently, most of the school bags are being imported in Uganda, with a few local tailoring shops. Accordingly, this leaves good potential for investment in this business idea. Some schools have even picked interest in customized bags for their students.

Marketing Strategy

The main marketing strategy adopted by this business idea is marketing through customized production with logo and monogram of the schools and institution especially for school bags and school uniforms and sales through these schools and institutions. The other is through trade channels for example by appointing whole-sellers in major cities or through direct sales to stationery shops.

7.0 Project Costs

Direct Materials, Supplies and Costs

The main raw material for the bags is fabric which can be either imported or sourced from wholesale fabric dealers. The fabric and consumables are also purchased in bulk at competitive prices in variably directly from manufacturing mills or wholesale traders to keep down the cost of inputs. The fittings and accessories can also be sourced from specialized shops dealing in these products within Uganda. The other raw materials that would be required are tapes that are used for side straps, back straps and piping, sewing thread, buckles (metal buckles or plastic), slide fasteners, and locks. Screen and screen printing inks are also required as raw materials for the production of the bags for printing the different designs as per client.

Table 4: Direct Production Costs

	Year1	Year 2	Year3	Year 4	Year 5
Purchases	25,784	28,363	34,035	44,246	61,944
(a) Nylon Fabric	9,474	10,421	12,505	16,257	22,760
(b) Nylon Tape	1,579	1,737	2,084	2,709	3,793
(c) Buckles and Hooks	2,400	2,640	3,168	4,118	5,766
(e) Lining Material	3,300	3,630	4,356	5,663	7,928
(g) Sewing Thread	1,579	1,737	2,084	2,709	3,793
(g) Printing Ink	2,400	2,640	3,168	4,118	5,766
Labour					
(h) Direct Labour	5,053	5,558	6,669	8,670	12,138

Direct costs include: materials, supplies and other costs that directly go into production of the product.

Personnel and Labour Costs

	Yearly Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Salaries and Wages estimate	7	11,526	11,526	11,526	15,632	15,632	65,842
Manager	1	3,158	3,158	3,158	3,158	3,158	15,789
Accounts Officer	1	2,211	2,211	2,211	2,211	2,211	11,053
Production Supervisor	1	1,579	1,579	1,579	1,579	1,579	7,895
Marketing officer*	1	1,579	1,579	1,579	3,158	3,158	11,053
Cutting Designers	2	2,526	2,526	2,526	5,053	5,053	17,684
Guard	1	474	474	474	474	474	2,368

Overhead Costs

Item Description	year 1	year 2	year 3	year 4	year 5	Total
Transport and fuel*	1,263	1,263	1,263	2,526	2,526	8,842
Stationery	158	158	158	158	158	789
Electricity (Power)*	474	474	474	947	947	3,316
Advertising costs	316	316	316	316	316	1,579
Facility Rent	1,579	1,579	1,579	1,579	1,579	7,895
Fuel & Generator maintenance.	947	947	947	1,895	1,895	6,632
Total	**4,737**	**4,737**	**4,737**	**7,421**	**7,421**	**29,053**

Product unit cost and price structure in US$

Item	Unit	Unit Price	Gross Margin	Unit Cost
Bags		7.9	40.0%	4.7

Table 8: Revenue Projections

Year	Year1	Year 2	Year 3	Year 4	Year 5	Total
Projected Sales Growth		10%	20%	30%	40%	
Bags per Month	500.0	550.0	660.0	858.0	1,201.2	
Bags per Year	6,000.0	6,600.0	7,920.0	10,296.0	14,414.4	
Price Per Bag (US$)	7.89	7.89	7.89	8.97	8.97	
No. of business days per year	240	240	240	240	240	
Estimated Revenue From Bags	47,368	52,105	62,526	92,400	129,360	383,760

8.0 Sources of Supply of Machinery and equipment and raw materials

The materials required can be readily got from;

- SENGA Sew Co Ltd, Plot 7 Luwum Street. P.O. Box 24901 Kampala Uganda.
  Tel: 256-414-235832, +256-772-863857

9.0 Government Facilities and Incentives Available

Government has reduced taxes on scholastic materials to boost the education sector. In a bid to eradicate poverty, government is encouraging small scale businesses through WEALTH CREATION programme.

10.0 Profitability Analysis

Projected Profit and Loss Account

Activity	Year 1	Year 2	Year3	Year 4	Year 5	Total
Revenue	47,368	52,105	62,526	92,400	129,360	383,760
Bags	47,368	52,105	62,526	92,400	129,360	383,760
Cost of Goods Sold	25,784	28,363	34,035	44,246	61,944	194,372
Gross Profit	21,584	23,743	28,491	48,154	67,416	189,388
Operating Expenses						
Personnel and Labour Costs	11,526	11,526	11,526	15,632	15,632	65,842
Furnishing Repairs & Maint.(10% of cost)	115	145	103	145	270	778

Transport and fuel*	1,263	1,263	1,263	2,526	2,526	8,842
Stationery	158	158	158	158	158	789
Electricity (Power)*	474	474	474	947	947	3,316
Advertising costs	316	316	316	316	316	1,579
Facility Rent	1,579	1,579	1,579	1,579	1,579	7,895
Fuel & Generator maintenance.	947	947	947	1,895	1,895	6,632
Depreciation Expenses	2,043	1,817	2,057	2,824	2,517	11,258
Total Operating Expenses	18,421	18,225	18,424	26,022	25,840	106,931
Net Profit(Loss) before Tax	3,163	5,518	10,067	22,133	41,576	82,457
Taxation (30%)	949	1,655	3,020	6,640	12,473	24,737
Net Profit/(Loss) After Tax	2,214	3,863	7,047	15,493	29,103	57,720
Cumulative Net Profit(Loss) After Tax	2,214	6,077	13,124	28,617	57,720	57,720
Annual Return on Investment(After Tax)		21%	27%	42%	43%	

2.5.9 Making Cornflakes

2.0 Introduction

This Business Idea is for manufacturing cornflakes, Corn flakes being one of most nutritious foods and is consumed as breakfast food in all over the world. When milk is added to them, they turn into a wholesome food with the baked corn flakes swelling up to provide a thick delicious food cereal. They have a high market potential as they are consumed by adults, youths and children.

3.0 Production Capacity

This business idea aims at production of 280 kilograms of cornflakes a day totaling to 87,360kgs in the 1st year. The revenue potential is estimated at **$** 315,370 in the first year of project operation at a sales margin of 20%. The initial capital investment cost for the project is $ 69,363 which categorizes the investment profile under medium enterprises.

Revenue Projections for 5 Years in US$

Year	Year 1	Year 2	Year3	Year 4	Year 5
production capacity in kg	87,360	87,360	87,360	99,840	118,560
unit price per kg	3.61	3.61	3.61	3.61	3.61
No. of business days per year	312	312	312	312	312
Estimated Revenue per Year	315,370	315,370	315,370	360,422	428,002

4.0 Manufacturing Process

Maize grains are cleaned using air classifiers and after separated (large grains and small grains) using a mesh screen separator. The grains are then polished and milled to remove germs and bran. The milled grains are cooked in a rotary steam cooker where flavour syrups of sugar, malt, salt, and water are added. The grain pieces are then washed and small grains are separated. The grains are then carried to an agitator pump or lump breaker then sent to a steamer where pre-heated air is blown into the grains so as to reduce the moisture content to the desired level of about 20%. The dried material is then kept in a demoisturising tank for a few hours for moisture to equally be distributed. The grits (cooked material) are then washed again and passed through a heavy flaking machine where they are turned into flakes by pressing. The flakes are immediately transferred to a rotary oven for roasting. After roasting, the flakes are inspected, screened and graded to remove standard flakes. The flakes are then packed in water

resistant polythene containers of waxed paper**.**

5.0 Targeted Scale of Investment, Capital Investment Requirements and Equipment

This table gives a clear layout of the main capital investment requirements for the project in the 1st five years of project operation and their estimated costs.

Table 1 - Investment Programme

Items	Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Fixed Assets			34,786						34,786
Equipment, Furniture			34,786	0	0	2,800	20,140	2,650	57,576
Silo for storing corn grain constructed by brick & R.C.C	1,500	1	1,500				1,500		3,000
Air class classifiers	1,500	1	1,500				1,500		3,000
Storage bins	5.4	100	540				540		1,080
Weight balance	500	1	500			500	0		1,000
Rotary steam cooker	2,500	1	2,500				2,700		5,200
Agitator or lump breaker	500	1	500				1000		500
Pan cooler or steamer	2500	1	2,500				2500		2,500
Germ separator	2300	1	2,300			2300	0		2,300
Heavy flaking machine	8500	1	8,500				0		8,500
Rotary oven	8000	1	8,000				8000		8,000
Conveyer	541	1	541				700		541
Inspection conveyer	541	1	541				700		541
Packing machine	1000	1	1,000				0		1,000
Screening and cooling equipment	700	1	700				1000		700
Mixer for flavoring syrup	450	1	450				0	450	450
Mini boiler Cap	1064	1	1,064				0	1200	1,064
Generator	1400	1	1,400				0	0	1,400
Shifter	750	1	750				0	1000	750
Office equipment	4054		4,054				0	1000	4,054
Delivery Van	5405	1	5,405						5,405
Site Preparation & Installation /Preliminary Expenses	3242		3,242						3,242
Working Capital	21,876		21,876						21,876
Total Capital Investment			**69,363**	**0**	**0**	**2,800**	**9,730**	**9,730**	**69,363**

6.0 Raw Materials Requirements for 12 months

You will need to use 124,800 kgs of yellow and white corn (Hybrid), 6,240 kgs of salt, and 6,240 kgs of sugar, 6,240kgs of Cocoa Powder, 6,240 kgs of different flavor syrups, water and 6,240 dozens of packaging materials for the manufacture of corn flakes in the first year of production and as production in the following years keeps on increasing.

7.0 Cost structure, Production Volumes and Direct Costs

Descriptions	%	Unit Price	Year 1	Year 2	Year 3	Year 4	Year 5
Direct Purchases			262,517	262,517	262,517	300,019	361,015
Maize (hybrid yellow and white corns)	90%	1.2	94,349	94,349	94,349	107,827	128,045
Salt	10%	0.7	6,115	6,115	6,115	6,989	8,299
Sugar	10%	0.95	8,299	8,299	8,299	9,485	11,263
Cocoa powder	10%	10	87,360	87,360	87,360	99,840	118,560
Flavors	10%	7	61,152	61,152	61,152	69,888	82,992
Packing materials	10%	0.6	5,242	5,242	5,242	5,990	11,856

8.0 Demand and Market Potential

The demand for ready to eat food is increasing very fast. Additionally, people are looking for the healthy diet. Therefore, a change is taking place at the breakfast table of an average urban household. The hustle

and bustle around the first meal of the day keeps the packaged breakfast foods mart on the edge.

Though several other breakfast cereals are also available in the market but they are still to gain popularity. Besides the good taste, crispy nature, corn flakes are also popular because of their friable texture and blend flavor. And most important, the food is just ready for consumption with no cooking requirements. This is the major reason the demand for the corn flakes is increasing rapidly. Therefore, starting a corn

Flakes manufacturing business is a lucrative venture for the entrepreneurs.

9.0 Office Overheads and Operational Costs.

Item Description	year 1	year 2	year 3	year 4	year 5	Total
Fuel for the Delivery Van	8,432	8,432	8,432	8,432	8,432	42,160
Stationery	162	162	162	162	162	810
Electricity	1,622	1,622	1,622	1,622	1,622	8,110
Water*	486	486	486	486	486	2,430
Fuel & Generator maintenance.	324	324	324	324	324	1,620
Communication	324	324	324	324	324	1,620
Total	**11,350**	**11,350**	**11,350**	**11,350**	**11,350**	**56,750**

10.0 Sources of Supply of Machinery and Equipment and Raw Materials

Equipment may be imported from India by making online order through WWW.alibaba .com, though when got from Uganda, Costs will be lower while raw materials can be easily and cheaply procured from the local market.

11.0 Government Facilities and incentives

This is an industry in line with government policy of adding value to local produce.

According to UIA, government's import duty is nil by tariff and VAT is postponed. There is a provision whereby payment of VAT at importation on specified imports is postponed to a future date in accordance with the VAT Deferment Regulations 2013.

The targeted beneficiaries should have plant and machinery worth about $22,500 (Shs81 million) and above. And also 75% initial allowance granted in the first year of production on the cost base of plant and machinery for industries elsewhere in Uganda.

12.0 Profitability for a 5 – Year Period in US $

This table shows the revenue, cost of sales, operating expenses, Net profit and the return on the investment after tax.

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Sales Revenue	315,370	315,370	315,370	360,422	428,002	1,734,533
cost of sales	262,517	262,517	262,517	300,019	361,015	1,448,585
Gross Profit	52,853	52,853	52,853	60,403	66,986	285,948
Operating Expenses						
Personnel and Labour Costs	13,460	13,784	15,407	15,569	15,569	73,789
Rent for premises	6,486	8,108	8,108	9,730	9,730	42,162
Building repairs & maintenance (4% of cost)	259	259	259	259	259	1,297
Audit fees	3,000	3,000	3,000	3,000	3,000	15,000
Fuel for Van	1,297	1,297	1,297	1,297	1,297	6,485
Stationery	162	162	162	162	162	810
Electricity	1,621	1,621	1,621	1,621	1,621	8,105
Water	1,623	1,623	1,623	1,623	1,623	8,115
Fuel & Generator maintenance.	1,622	1,622	1,622	1,622	1,622	8,110
Communication	1,622	1,622	1,622	1,622	1,622	8,110
Depreciation Expenses	11,061	8,296	6,222	5,366	8,360	39,305
Total Operating Expenses	42,214	41,394	40,943	41,872	44,865	211,289
Net Profit(Loss) before Interest and Tax	10,639	11,458	11,909	18,531	22,121	74,659
Taxation (30%)	3,192	3,438	3,573	5,559	6,636	22,398
Net Profit/(Loss) After Tax	7,447	8,021	8,337	12,972	15,485	52,262

Cumulative Net Profit(Loss) After Tax	7,447	15,468	23,805	36,777	52,262	52,262
Annual Return on Investment	22%	32%	39%	39%	54%	
Average Return on Investment	37%					
Pay back shall be realized in Year 6						

1. Production costs are assumed for 312 days per year with daily capacity of 280 kg of cornflakes per day.
2. Depreciation (fixed asset write off) assumes 4-years life of assets written off as per details in the schedules
3. Direct costs include: materials, supplies and other costs that directly go into production of the product.
4. Total monthly workdays assumed are 26-days.
5. The valuation currency used is United States Dollar

2.5.10 Paint Making

2.0 Introduction about the Products, structure of their market and demand prospects

Paint is any liquid, liquefiable, or mastic composition that, after application to a substrate in a thin layer, converts to a solid film. It is most commonly used to protect, color, or provide texture to objects. Paint can be made or purchased in many colors—and in many different types, such as watercolor, synthetic, etc. Paint is typically stored, sold, and applied as a liquid, but dries into a solid. To most people, paint is the colour on the walls of their home, the colour of their car, boat or caravan. Paint is applied for Decoration, Protection Identification and Sanitation.

Paint can be applied as a solid, a gaseous suspension (aerosol) or a liquid. Techniques vary depending on the practical or artistic results desired. The decorative coatings have various applications such as interior and exterior house paints, primers, sealers, varnishes and stains. This product is on high demand since the Construction sector is growing very fast in the Country. The capital outlay is a bit stretched but the return on investment justifies it. This investment profile intends to produce semi-gloss waterborne white paint.

3.0 Production capacity, technology and processes description

This business idea is premised on production of 120 litres of emulsion paint per day. The production is estimated to grow resulting into annual production of 19,200 Litres of paint by the 5th year.

Table 1: Projected Scale of Operations

Year	Year 1	Year 2	Year3	Year 4	Year 5
Litres of Emulsion per day	120	140	160	180	200
Litres of Emulsion per month	960	1120	1280	1440	1600
Litres produced Per Year	11,520	13,440	15,360	17,280	19,200

Process Description

Mill-base: High speed mixer

1. Water, propylene glycol, surfactants, dispersants, defoamer and biocide are measured out and added to a dispersion vat. This is the start of the mill-base.
2. The liquid measured is premixed for about five minutes.

3. White pigment (titanium dioxide) and extender pigment (calcite, talc, barytes) are added in a predetermined order with the disperser running. The disperser blade speed is gradually increased as the pigment is loaded. Water is also added in stages to maintain optimum viscosity for mill-base dispersion. The finished mill-base is then tested.
4. Remaining additives and some thickener and water are added and mixed.

Let-down

1. Meanwhile in a larger let-down vat, the emulsion resin component is measured out. This has defoamer, thickener and coalescent solvent added with stirring and is mixed for about 30 minutes.
2. When both the mill-base and let-down are completed, the mill-base is pumped into the let-down, while the hydraulic mixers attached to the vat maintain good agitation.

Finished product

1. Once all the mill-base is added, and the mill-base vat washed out, the nearly completed paint is mixed for about 30 minutes. Then additional thickeners and remaining additives are measured out and mixed into the batch.
2. A sample of the batch is taken to the laboratory for Analysis.
3. Upon the results of testing, the batch may be fine-tuned for viscosity and mixed for a further period of time.
4. A predetermined series of tests are carried out on a sample of the batch. Where tint strength and colour are specified, the batch will also be tested for properties such as tint acceptance and compatibility with tinters.

Canning

1. When the batch passes through the primary stage of testing, it is approved for canning and then packed into a specified series of containers. Retain and Final Inspection samples are collected.
2. When all tests are completed, and results recorded and checked, the Final Inspection Laboratory issues a release from quarantine to the warehouse.
3. When the Final Inspection Laboratory request is received the batch is moved into the warehouse general stock for dispatch as required to meet orders. The normal production time for steps 1-13 is about two days.

4.0 Targeted scale of investment, capital investment requirements and equipment

This business idea has been developed with emphasis on medium enterprises as defined by the MSME Policy document. This kind of investment can cost about USD 16,392 in the first trading year. The Investment could be financed by the Owner's Equity. The profits from the business could later be ploughed back into the business in the subsequent years.

Table 2: Investment Programme

Capital Investment Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	Fixed Assets			10,176	0	6,946	4,054	1,000	0	22,176
1.1	Vehicle		2	0	0	5,405		0	0	0
1.2	Furniture, Equipment & furnishings			10,176	0	1,541	4,054	1,000	0	16,770
	Office Furniture, Equipment, Computers, Tools/Accessories			1,081						1,081
	Mixer	2,400	1	4,054			4,054			8,108
	Weighing Scales	200	2	541						541
	Storage drums	100	10	1,351		1,000		1,000		3,351
	Protective Googles	13	50	649		541				
	Viscometer	200	1	2,000						
	Carrier trolleys	100	5	500						
2	Preliminary Expenses			811				0	0	811
3	Working Capital			5,405	0	0	0	0		5,405
TOTAL INVESTMENT				**16,392**	**0**	**6,946**	**4,054**	**1,000**	**0**	**28,392**

5.0 Raw materials requirements

The main raw material for production of emulsion are PV Ammonia, TT, Whiting etc. as mentioned in the production costs table below.

6.0 Market Analysis

The market for paint is fast growing in Uganda with demand from the fast growing housing and construction sector. Uganda also faces an 8 million unit housing shortage according to the Uganda National Planning Authority. With an estimated 300,000 housing units needed per year, commercial construction and residential construction in Uganda are booming. All these units need paint for a better finishing look.

7.0 Project Production Costs

		Quantity	Year 1	Year 2	Year 3	Year 4	Year 5
	Direct Costs/ Raw materials /Purchase costs		16,191	16,919	17,730	18,676	19,703
a	TT(Kgs)	960.0	2,880	2,973	3,108	3,243	3,514
b	PVA (Kgs)	1,440.0	4,320	4,378	4,459	4,595	4,730
c	Whiting (Kgs)	3,600.0	3,600	3,784	3,919	4,054	4,189
d	Foam Line	600.0	900	946	1,081	1,216	1,351
e	Ammonia	1,080.0	540	595	703	892	1,000
f	Deformer (ltrs)	800.0	800	865	946	1,027	1,135
g	Packaging Materials		1,351	1,486	1,622	1,757	1,892
h	Nistrol	1800	1,800	1,892	1,892	1,892	1,892
7.2	Personel and Labour Costs		5,000	5,000	5,000	5,000	5,000
	Manager and marketing personnel	1.0	1,081	1,081	1,081	1,081	1,081
	Technician	1.0	946	946	946	946	946
	Production Manager	2.0	1,622	1,622	1,622	1,622	1,622
	Casual Labourers	5.0	1,351	1,351	1,351	1,351	1,351
7.3	Overhead Costs-Utilities, Ofiice expenses		4,324	4,324	4,324	4,324	4,324
	Transport and fuel		1,351	1,351	1,351	1,351	1,351
	Energy*		1,351	1,351	1,351	1,351	1,351
	Water*		1,351	1,351	1,351	1,351	1,351
	Internet , communication, admin costs		270	270	270	270	270
7.4	Depreciation		1,272	1,113	974	852	0.0
	Total Production Costs		**25,516**	**26,243**	**27,054**	**28,000**	**29,027**

8.0 Sources of Supply of Machinery and equipment and raw materials

The equipment can be bought from Alibaba Manufacturer's Directory. www.alibaba.com . The raw materials can be got from hardware's in Uganda.

9.0 Government Facilities and Incentives Available

The government of Uganda has introduced the BUBU Initiative to support Ugandan firms dealing in various items.

10. Profitability Analysis

Activity	Baseline	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue from paint		31,135	39,957	49,816	60,714	72,649	254,270
Cost of Goods Sold		25,516	26,243	27,054	28,000	29,027	135,840
Gross Profit	0	5,619	13,714	22,762	32,714	43,622	118,430
Operating Expenses		4,324.3	4,324.3	4,324.3	4,324.3	4,324.3	
Depreciation Expenses		1,272	1,113	974	852	0	4,211
Total Operating Expenses		5,596	5,437	5,298	5,176	0	21,508
Net Profit(Loss) before Interest and Tax		23	8,276	17,464	27,537	43,622	96,922
Net Profit/(Loss) before Tax		23	8,276	17,464	27,537	43,622	96,922
Taxation (30%)	30%	7	2,483	5,239	8,261	13,086	29,077
Net Profit/(Loss) After Tax		16	5,793	12,225	19,276	30,535	67,845
Cumulative Net Profit(Loss) After Tax		16	5,810	18,034	37,310	67,845	67,845
Annual Return on Investment(After Tax) 61%							

2.5.11 Shoe Polish Making

2.0 Introduction

Shoe Polish is commercially presented as a waxy paste or cream used to polish, shine, and water proof or improves and restores the appearance of leather and footwear products that it is used in both liquid and semi solid form. Shoe polish is not only used on footwear but can also be applied to all leather materials including bags, etc. The most prominent type of shoe polish is Kiwi, which is imported and analysis of the local market and production technology reveals a big opportunity for local producers to start producing shoe polish more cheaply as an important strategy.

3.0 Production Capacity

The Project capacity is estimated to be 60,000kgs annually but for the start the capacity is estimated to be 24, 000kg (40% of the annual estimate) with revenue estimated at US$ 96,000 in the 1st year and to progressively expand to 54,000 kg with revenue estimated at US $ 216,000 by year 5. The payback period for this idea is 7 months in the 1st year and the net profit margin is 25%.

Revenue Projections for 5 Years IN US$

Activities	Year1	Year 2	Year3	Year 4	Year 5
Targeted Market Percentage (%age sales)	40%	50%	60%	80%	90%
production capacity in kg per day	76	95	114	152	171
unit price per kg	4	4	4	4	4
No. of business days per year	316	316	316	316	316
Estimated Revenue per Year	96,000	120,000	144,000	192,000	216,000

4.0 Production Technology and Process Description

There is no set method of manufacture although most methods use pressure. The process consists of homogenizing molten waxes and other additives followed by thinning with solvent. This involves heating the wax under high temperatures of up to 85 degrees Celsius. The semi-solid polish is packed in round tins of size 50mls and 100mls, while the liquid polish is packed in plastic bottles having sponge pasted caps. Dyes are added and mixed in turpentine oil if it is not a neutral polish. The mixed mass is reduced slowly to 50 °C, and as its viscosity increases, it is poured through a closed funnel into a cooling chamber. The poured mass is allowed to settle slowly, providing uniform distribution. The process is considered

straight forward and the required equipment is relatively easy to acquire. The cost of establishing a fully-fledged shoe polish manufacturing facility has been estimated at around $40,580.

5.0 Capital Investment

For this kind of investment follow under a medium enterprise, and one needs to establish a fully-fledged shoe polish manufacturing facility which is estimated at $40,580 as capital Investment.

Table 1 Capital Investment programme in US$.

This table gives a clear layout of the main capital investment requirements for the project in the 1st five years of project operation and their estimated costs.

Item	Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Fixed Assets			11,216						11,216
Equipment,Furniture			11,216	0	0	0	0	0	11,216
Reaction Vessel with mixer & heater	8,000	1	8,000						8,000
Storage vessel	1,000	1	1,000						1,000
packing machine	1,500	1	1,500						1,500
Rota stamping Machine	500	1	500						500
Weighing balance	216	1	216						216
Office Requirements (Computers, Printer, Tables, Chairs, Waiting Chairs, Filing cabinets, Computer table, Cables, connectors and installation)			1351						1,351
Distribution Van	6757	1	6757						6,757
Preliminary expenses and site preparation and Installation			8108						8,108
Working Capital	13148		13148						13,148
Capital Investment			40,580						40,580

6.0 Raw material Requirement

The wax and oil based shoe polish provides a waterproof protection to keep stains, oil, dirt, and other substances from getting embedded into the leather in the shoes. Today, shoe polish is manufactured using a mix of natural and synthetic materials, including dyes, turpentine, naphtha, and gum Arabic. Shoe polish prevents leather from absorbing water, allows for easy cleaning of the leather, covering of scuff marks, and provides flexibility to the leather.

7.0 Analysis of Production Volumes

Year	Year 1	Year 2	Year3	Year 4	Year 5
Production capacity	40%	50%	60%	80%	90%
Production capacity in kgs	24,000	30,000	36,000	48,000	54,000
No. of business days per year	316	316	316	316	316

7.1 Unit Cost and Price Structure

Item	Unit	Unit Price	Gross Margin	Unit Cost
Shoe polish	kgs	4.4	25.0%	3.323

7.2 Direct Production Costs

Items	Unit	Qty	Unit Price	Year1	Year 2	Year3	Year 4	Year 5
Total Costs				**78,888**	**97,068**	**116,870**	**157,262**	**180,482**
Carnauba wax	kg	36,000	3.5	50,400	63,000	75,600	104,832	122,472
Synthetic waxes	kg	15,000	2	12,000	15,000	18,000	24,000	27,000
Paraffin	ltr	6,000	1.25	3,000	3,750	4,500	6,000	6,750
Turpentine	kg	3,000	2.5	3,000	3,750	4,500	6,000	6,750
Dye	kg	3,000	2	2,400	3,000	3,600	4,800	5,400
Packing materials for for 100grams	pieces	60,000	0.08	1,920	2,400	2,880	3,840	4,320

8.0 Demand and Market Analysis

Leather footwear is a common product in rural and urban areas and shoe-polish is essential to improving the life and appearance of the footwear. If good quality shoe polish is locally produced, buyers cannot be an issue; what matters will be quality. This creates an opportunity for anyone who invests in this kind of business because it has a huge market in the country and one who invests in this business will be assured of a ready market from several households, schools and security organizations..

9.0 Project Overhead and Operational Costs

Item Description	year 1	year 2	year 3	year 4	year 5	Total
fuel	811	1,600	2,080	2,080	2,080	8,651
Stationery	270	270	351	351	351	1,593
Electricity	973	1,622	1,800	2,200	2,200	8,795
Water*	486	486	632	632	632	2,868
Fuel & Generator maintenance.	703	703	914	914	914	4,148
Communication	703	703	914	914	914	4,148
Total	**3,946**	**5,384**	**6,691**	**7,091**	**7,091**	**30,203**

10.0 Supply of Equipment and Raw Materials

Equipment may be imported from India by making online order through WWW.alibaba .com, though when got from Uganda, Costs will be lower while raw materials can be easily and cheaply procured from the local market.

11.0 Government Incentives

According to UIA, government's import duty is nil by tariff and VAT is postponed.

There is a provision whereby payment of VAT at importation on specified imports is postponed to a future date in accordance with the VAT Deferment Regulations 2013.

The targeted beneficiaries should have plant and machinery worth about $22,500 (Shs81 million) and above. And also 75% initial allowance granted in the first year of production on the cost base of plant and machinery for industries elsewhere in Uganda.

12.0 5-YearProject Profitability Analysis

This table shows the revenue, cost of sales, operating expenses, Net profit and the return on the investment after tax

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Sales Revenue	96,000	120,000	144,000	192,000	216,000	768,000
cost of sales	78,888	97,068	116,870	157,262	180,482	0
Gross Profit	17,112	22,932	27,130	34,738	35,518	768,000
Operating Expenses						
Rent for premises	1,622	3,243	3,243	4,865	4,865	17,838
Personnel and Labour Costs	1,620	3,563	6,188	8,030	8,030	27,431
Building repairs & maintenance	970	970	970	1,377	1,377	5,664
Audit fees	500	1,500	1,500	1,500	1,500	6,500
Fuel for the Delivery van	811	1,600	2,080	2,954	2,954	10,399
Stationery	270	270	351	498	573	1,962
Electricity	973	1,622	1,800	3,124	3,593	11,112
Water	486	486	632	897	1,032	3,533
Fuel & Generator maintenance.	703	703	914	1,298	1,493	5,111
Communication	703	703	914	1,298	1,298	4,916
Depreciation Expenses	4,493	3,437	2,632	2,017	1,548	14,128
Total Operating Expenses	13,151	18,097	21,224	27,858	28,263	108,594
Net Profit(Loss) before Interest and Tax	3,961	4,835	5,906	6,880	7,255	659,406

Taxation (30%)	1,188	1,450	1,772	2,064	2,177	197,822
Net Profit/(Loss) After Tax	2,773	3,384	4,134	4,816	5,079	20,185
Cumulative Net Profit(Loss) After Tax	2,773	6,157	10,291	15,107	20,185	54,512
Annual Return on Investment(After Tax)	19%	30%	47%	71%	98%	
Average Return on Investment			53%			

1. Production costs are assumed for 312 days per year with daily capacity of 77kgs of shoe polish per day.
2. Depreciation (fixed asset write off) assumes 4-years life of assets written off as per details in the schedules
3. Direct costs include: materials, supplies and other costs that directly go into production of the product.
4. Total monthly workdays assumed are 26-days.
5. The valuation currency used is United States Dollar

2.5.12 Making Disposable Syringes

1.0 Introduction

Disposable Syringes are made of plastic material and are used in the field of medical and veterinary science. Due to their availability in sterilized condition, ready to use, and cost effectiveness, disposable syringes are fast replacing the age-old glass syringes. Moreover, the horror of AIDS worldwide has almost dispensed with the reuse of syringes and the demand of disposable syringe has increased phenomenally. Disposable syringes are mostly injection molded from polypropylene. Syringes are available in sizes of 1 ml, 2ml, 5 ml, and 10 ml, in a variety of designs and consist of either two or three components construction. The number and size of injection molding machines required depend upon syringe construction, number of mold cavities, annual production.

2.0 Targeted Production Capacity:

It is estimated that this project will manufacture 200 batches of syringes of different sizes per day giving rise to about 62,400 per year which will lead a revenue estimate of US$ 124,176 in the first year of project operation with a minimum capital investment of US$ 91,153 which leads the Investment profile to fall under a medium enterprise.

3.0 Technology and Process Description

Production of disposable syringe requires special injection molding machines and special mounds. M/s. Klockner Windsor has introduced Ferromatic Injection Molding machine for this purpose. Raw material required is polypropylene. It is fed into the injection molding machine and molded in chilled condition to get better clarity. The molded syringes are then assembled with the needle in automatic assembly machine. The whole assembly is then sterilized in sterilization plant using ethylene oxide. The completed syringe is then blister packed in automatic packing machine.

4.0 Equipment:

The essential machinery required includes: (i) Zigma Injection Molding Machine (ii) Sterilization plant (Ethylene Oxide) (iii) Blister Packing Machine (iv) Automatic Packing Machine (v) Scrap Grinding Machine (vi) Weighing Scale(vii) Air Compressor (viii) Water Pump (ix) Chilling Plant (x) Testing Equipment (xi)

Electrification and Installation (xii) Firefighting Equipment(xiii) Set of Mould for 2 ml (16 cavities for barrel, 24 cavity for plunger) (xiv) Set of Moulds for 5 ml Syringe (16 Cavity for barrel, 16 cavity for plunger)

5.0 Targeted Scale of Investment, Capital Investment Requirements and Equipment.

This table gives a clear layout of the main capital investment requirements for the project in the 1st five years of project operation and their estimated costs in US$.

Items	Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Fixed Assets			70,604	0	0	11,960	48,365	25,465	70,604
Equipment,			70,604	0	0	11,960	48,365	25,465	156,394
Zigma Auto destructive syringe moulding Machine	13,514	1	13,514					14,865	28,379
Sterilization plant	2,703	1	2,703			3,000			5,703
Automatic Blister Press packing machine	5,405	1	5,405			6,000			11,405
Needle manufacturing machine	1,000	1	1,000			1,200			1,000
Syringe Assembly machine	13,514	1	13,514				14,865		13,514
Scrap Grinding Machine	5,000	1	5,000				7,000		12,000
Plastic melting machine	10,812	1	10,812				15,000		10,812
Weighing balance	51	2	102			60			162
Air compressor	541	1	541			700			1,241
Water pump	500	1	500				1,000		1,500
Chilling plant	5,000	1	5,000				5,500		10,500
Testing Equipment	4,000	1	4,000				5,000		9,000
Injection molding machine with different sizes	4,054	1	4,054					5,000	9,054
Screen printing machine	2,701	1	2,701					3,000	5,701
Firefighting Equipment	541	2	1,082					1,400	2,482
Set of moulder for 1ml,2mls,5mls,20mls & 60mls	676	1	676			1,000		1,200	2,876
Office Requirements (Computers, Printer, Tables, Chairs, Waiting Chairs, Filing cabinets, Computer table, Cables, connectors & installation)			2703						2,703
Distribution Van	6757	1	6757						6,757
Site preparation /Installation/ Preliminary expenses	6216		6216						6,216
Working Costs			4,873						4,873
Capital Investment			**91,153**	**0**	**0**	**11,960**	**48,365**	**25,465**	**176,943**

6.0 Raw Materials Requirements

Since disposable syringes come in direct contact with the interior of the body, government regulations require that they be made from biocompatible materials which are pharmacologically inert. Additionally, they must be sterilizable and nontoxic. Many different types of materials are used to construct the wide variety of hypodermic needles available. The needles are generally made of a heat-treatable stainless steel or carbon steel. To prevent corrosion, many are nickel plated. Depending on the style of device used, the main body of the tube can be made of plastic, glass, or both. Plastics are also used to make the plunger handle and flexible synthetic rubber for the plunger head.

Raw Materials Requirements for first 5 Years of Project Operation

Particulars	% Units	Unit Price	Year1	Year 2	Year3	Year 4	Year 5
Total Production per year			156,000	187,200	218,400	280,800	312,000
Total Direct production cost per			58,475	89,467	146,726	206,782	221,552
Sterilasable paper	20%	1.1	13,728	25,740	33,462	48,048	51,480
Ethylene Oxide	20%	0.333	4,156	12,987	16,883	18,182	19,481
Compounded plastics	10%	0.95	5,928	7,410	9,633	10,374	11,115
Polypropylene	10%	3	18,720	23,400	60,840	65,520	70,200

Needles	10%	2.39	14,914	18,642	24,235	52,198	55,926
Blister Packing paper (Packaging materials)	10%	0.01	62	78	101	546	585
packaging boxes	5%	0.2	624	780	1,014	10,920	11,700
Rubber Gaskets	10%	0.01	62	78	101	109	117
Printing Ink	5%	0.09	281	351	456	885	948

7.0 Market Analysis

Disposable syringes have a wide market potential. The age-old glass syringes are very fast becoming obsolete. In Uganda there is no unit manufacturing this product. Therefore they can only be acquired through importations

8.0 Competitive Analysis

According to a new market report published by Transparency Market Research "Disposable Syringes Market - Global Industry Analysis, Size, Share, Growth, Trends and Forecast 2015 - 2023," the global disposable syringes market was valued at US$5.5 billion in 2014 and is projected to reach US$9.3 billion by 2023, during the forecast period from 2015 to 2023.

Syringes are the most widely used medical products in the world. These are used to deliver medicines intravenously or intramuscularly for the treatment of almost every disease. Disposable syringes are first choice in healthcare settings as compared to reusable syringes. The key factors which make them more in demand than their conventional counterpart include, sterility, accuracy and low cost of acquisition as compared to reusable syringes which comes at much higher cost with possibility of infection if sterilization is not maintained.

9.0 Business Overhead and Administration Costs

Item Description	year 1	year 2	year 3	year 4	year 5	Total
Fuel for the Delivery Van	1,405	2,108	2,811	2,811	2,811	11,946
Stationery	162	3	324	324	324	1,137
Electricity	1,622	1,622	2,595	2,595	2,595	11,029
Water*	486	486	973	973	973	3,891
Fuel & Generator maintenance.	324	324	649	649	649	2,595
Communication	324	324	324	324	324	1,620
Building Repair and maintenance	0	0	0	2,703	0	2,703
Total	**4,323**	**4,867**	**7,676**	**10,379**	**7,676**	**34,921**

10.0 Sources of Supply of Machinery, Equipment and Raw Materials

Equipment can be imported from India by making online order through WWW.alibaba .com:

10.1 Addresses of Machinery and Equipment Suppliers

1. M/s. D. G. P. Windsor India Ltd.
E-6, U2 Road, Wogle Industrial
Estate, Thane,
Mumbai-400 604.

10.2 Addresses of Raw Material Suppliers

1. M/s. Indian Petrochemicals Corporation Ltd.
P.O. Petrochemicals Township,
Vadodara-391346
(Gujarat.)

10.3 Sources of Supply of Raw Materials

Production facilities for manufacturing Disposable syringes are supplied to Developing Countries – together with the essential know-how – by a number of German and other European companies.

11.0 Government Facilities and Incentives Available:

The following incentives are available from Government in MOH bid to promote Health and wellbeing of

the people and they include: Capital incentives, tax exemptions, basic infrastructure, and grants.

12.0 5-YearProfitability Analysis

This table shows the revenue, cost of sales, operating expenses, Net profit and the return on the investment after tax

Activity	Year 1	Year 2	Year3	Year 4	Year 5	Total
Sales Revenue	124,176	164,775	235,628	322,959	370,744	1,218,282
cost of sales	58,475	89,467	146,726	206,782	221,552	723,002
Gross Profit	65,701	75,308	88,902	116,177	149,192	495,280
Operating Expenses						
Personnel and Labour Costs	22,052	24,322	27,801	30,395	30,395	134,965
Rent for Premises	6,486	6,486	9,730	16,216	16,216	55,134
Building repairs & maintenance	0	3,000	3,000	2,703	0	8,703
Audit fees	3,000	3,000	3,000	3,000	3,000	15,000
Transport and fuel	1,405	2,108	2,811	2,811	2,811	11,946
Stationery	162	162	324	324	324	1,296
Electricity	1,620	1,620	2,595	2,595	2,595	11,025
Water	486	486	973	973	973	3,891
Fuel & Generator maintenance.	648	648	648	648	648	3,240
Communication	324	324	649	649	649	2,595
Depreciation Expenses	19,678	14,826	11,174	11,413	17,696	74,787
Total Operating Expenses	55,861	56,982	62,705	71,727	75,307	322,582
Net Profit/(Loss) before Tax	9,840	18,326	26,197	44,449	73,885	172,697
Taxation (30%)	2,952	5,498	7,859	13,335	22,165	51,809
Net Profit/(Loss) After Tax	6,888	12,828	18,338	31,115	51,719	120,888
Cumulative Net Profit(Loss) After Tax	6,888	19,716	38,054	69,169	120,888	120,888
Annual Rate of Return on Investment	11%	28%	40%	44%	65%	188%
Average rate of return on Investment	38%					

Pay back of the Initial Investment shall be realized in year 5 as per the Profitability Analysis schedule

1. Production are assumed for 312 days per year with daily capacity of 200batches of disposable syringes per day
2. Depreciation (fixed asset write off) assumes 5-years life of assets written off as per details in the schedules
3. Direct costs include: materials, supplies and other costs that directly go into production of the product.
4. Total monthly workdays assumed are 26-days.
5. The valuation currency used is United States Dollar

2.6 SERVICES

2.6.1 Cleaning Services

1.0 introduction

Cleaning services are companies that improve the sanitation of the environment that they decide to work upon by cleaning it. Strategic planners noticed the wanting sanitation and came up with plans of offering cleaning services to eradicate this problem as they earn income for those ready to pay for the service.

2.0 Introduction About The Products.

Cleaning as a service is very vital as compared to the declining sanitation of the domestic outlets. Many people in Uganda are to busy, therefore hire theses services to do the work for them. Cleaning is becoming more commercial due to the establishment of many more other service centers like hospitals, schools, supermarkets and many other business centers. In such areas, cleaning companies are hired to keep this area tidy.

3.0 Target Production Capacity

Year	area in sqft	service	Year1	Year 2	Year3	Year 4	Year 5
number of clients per week	300 to 500	basic cleaning	4	5	6	7	9
	501 to 1250	basic cleaning	5	5	6	8	9
	1251 to 1850	basic cleaning	5	6	7	8	10
No. of business weeks per year			50	50	50	50	50

According to the above table, this company aims at grouping the area to be cleaned in square feet but those with area below the designed startup of 300sqft and above the 1850sqft, the prices are negotiable too. For each of the above area, a certain number of clients is expected at least on a weekly basis as illustrated above.

4.0 Process Of Starting Up An Interior Building Cleaning Service Company.

- Make a solid business plan and a good marketing strategy to help you succeed.
- Design your business through deciding either to work on large scale (buildings) or on small scale (residential cleaning).
- Figure out what services you what to offer. For example; carpet or floor cleaning, floor waxing, window washing, janitorial services, private residence maid services or organic cleaning services

depending on the clients demand.

- Choose a location and make your business official by choosing a name that has not been registered before, get a liability insurance obtain a startup capital.
- Set up equipment required for cleaning, organize transport means, hire workers, create a pricing structure and carry out accountability.
- Promote your business through advertising, offering discounts and incentives so as to gain a competitive advantage.

5.0 Cleaning Technology Aspects of the Business

Cleaning does not require very sophisticated technology and mainly if water, labour and detergents are available, then the service can be offered. The mainly machines used on large scale area are human friendly ans some may require the usev of power while others do not. Other small equipments like brushes, towels. Buckets and water pipes are easy to acquire and use.

6.0 Targeted Scale of Investment

Details	Quantity	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
Fixed Assets		17,450	0	0	1,900	0	0	14,250
Facilities and Equipment		12,050	0	0	1,800	0	0	13,750
Generator (with Silencer)	1	350						350
vaccuuming machine	2	2,000						2,000
cleaning towels	100	100			100			200
wheel cotton brushes	5	500			500			1,000
Water pipes	2	600						600
Telecom equipment	1	1,000						1,000
protection gaments		1,000						1,000
Buckets	10	300						300
Gloves	10	100			100			100
dusting machine	2	800			800			1,600
floorcleaning machine	2	5,000						5,000
long &hand brushes	100	300			300			600
Furniture, Equipment & furnishings		400	0	0	100	0	0	500
Office Requirements Computers		300						300
Money Safe	2	100			100			200
Vehicles	1	5,000	0		0			0
Preliminary Expenses		200	0	0	200	0	0	400
Working Capital		2,306			0	0		2,306
		19,956	0	0	2,100	0	0	16,956

The table above explains assets and equipment or machinery required for the business to kick off. It also shows the cost per each item which is projected for five years period. In total, the business requires 17650 dollars to start and some of te small equipments like towels, brushes buckets and others more can be purchased in year 3to boast the work.

5.0 Raw Materials Requirements

Details	daily Qty	Year1	Year 2	Year3	Year 4	Year 5	Total
Purchases		18,150	22,688	28,359	35,449	44,312	148,958
Water	20units	300	375	469	586	732	2,462
Detergents	15kg	3,600	4,500	5,625	7,031	8,789	29,545
Disinfectants	10liters	7,500	9,375	11,719	14,648	18,311	61,553
sterilising agents	5litres	3,750	4,688	5,859	7,324	9,155	61,553
Sanitizer	5litres	3,000	3,750	4,688	5,859	7,324	61,553

The table above shows required daily units and the yearly costs of the materials required for the business which are projected to a 5 years period. More of these materials can be purchased depending on the number of clients available on the market. The materials required depend on the area to be cleaned and may increase with the increase in area and therefore the above materials are estimated on the basis of the minimum area to be 300 square feet.

6.0 Market Analysis

Some of the key players in the field include; Sanity Clean Professionals Ltd, KAS Engineering Solutions, Essential Home Services, Datfri Cleaning Co. Int Ltd and many others. However, this number of players is still very low as compared to the increasing demand of these services. Cleaning services are highly demanded due to the wanting sanitation and tight work schedule of people and therefore a new business ideas wold be viable if well-advertised

7.0 Project Overhead Costs

The table below summarizes the projected overhead costs to be incurred during the implementation of the project over the 5-year period.

Operating expenses						
Personnel and Labour Costs	18,940	23,675	29,594	36,992	46,240	155,441
Audit fees	1,500	1,500	1,575	1,654	1,736	6,229
Transport and fuel	1,000	1,250	1,563	1,953	2,441	5,766
Stationery	500	625	781	977	1,221	2,883
Energy	300	375	469	586	732	1,730
Internet	100	125	156	195	244	577
Communication	100	125	156	195	244	577
Depreciation Expenses	3,563	2,753	2,138	2,131	1,659	12,244
Total opreating exapaenses	**26,003**	**30,428**	**36,432**	**44,684**	**54,518**	**192,064**

8.0 Sources Of Supply Of Machinery

The cleaning equipments can be purchased from any Game stores in Uganda, Globe cleaning services along old Kira Road plot 318 or can order online from www.alibaba.com, and the cleaning chemicals can be got from container village along Nakivubo Road.

9.0 Government Incentives

Through the Domestic Direct Investment (DDI) and the Buy Uganda Build Uganda (BUBU), the government of Uganda is willing to raise funds and donate to Ugandans willing to promote the Uganda manufacturing industries and services by staring up their own small scale industries.

10.0 5-Year Project Profitability Analysis (US$)

Activity	BL	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue		48,250	57,500	70,000	88,500	107,750	372,000
300 to 650 sqft		12,000	16,250	19,500	24,500	31,500	103,750
600 to 1250 sqft		17,500	18,750	22,500	30,000	33,750	122,500
900 to 1850 sqft		18,750	22,500	28,000	34,000	42,500	145,750
cost of goods sold		18,150	22,688	28,359	35,449	44,312	148,958
Gross profit	0	30,100	34,813	41,641	53,051	63,438	223,042
Operating expenses							
Personnel and Labour Costs	8	18,940	23,675	29,594	36,992	46,240	155,441
Audit fees		1,500	1,500	1,575	1,654	1,736	6,229
Transport and fuel		1,000	1,250	1,563	1,953	2,441	5,766
Stationery		500	625	781	977	1,221	2,883
Energy		300	375	469	586	732	1,730
Internet		100	125	156	195	244	577
Communication		100	125	156	195	244	577
Depreciation Expenses		3,563	2,753	2,138	2,131	1,659	12,244
Total operating expenses		26,003	30,428	36,432	44,684	54,518	192,064
Net profit(loss) before interest & tax		4,098	4,384	5,209	8,367	8,920	30,978
Taxation (30%)	30%	1,229	1,315	1,563	2,510	2,676	9,293
Net profit/loss After tax		2,868	3,069	3,646	5,857	6,244	21,685

Cumulative net profit/loss after tax		2,868	5,937	9,584	15,441	21,685	21,685
Average rate of return on investment		29%					

The above table shows the profitability analysis with a focus on the projected revenue streams, the direct costs projected to be incurred, the expected gross profit and the overheads/operating expenses to be incurred and the resultant net profit before tax. A tax at 30% is charged on the profit to gain a cumulative profit for the five years. This enables us to know if the business is profitable or not.

2.6.2 Land Scaping and Designing

1.0 Introduction

Landscaping is all about the art, planning, designing, management, preservation and rehabilitation of the land and the design of a space for a beautiful environment. Compound designing is an upcoming lucrative business in this era. It is not enough to own a property that is well designed and built; the hallmark of any property is the beauty of the lawns and gardens. Landscapers are in the business of giving total esthetic effect in and around our neighborhoods. It is also not enough to plant flowers or have a lawn in one's compound and just watch them grow; one needs to hire a professional landscaping company to help you bring out the beauty in your environment. The service may include walkway and path way installation and gardening. Many developers are now interested in having well designed compounds that are be- fitting to their modern homesteads. This can be done for Universities, homes, Schools recreation centers, hospitals, camping sites, estates, hotels etc.

2.0 Business capacity, Technology and Processes Description

Table 1: Projected Scale of Operations

Year	Year1	Year 2	Year3	Year 4	Year 5
Average Sites designed per month	2	2	2	3	3
Average sites designed per year	24	24	24	30	36
Average square meters per site designed	35	40	40	45	55
Average sq mtrs designed per year	840	960	960	1,350	1,980
Average Price per sq mtr designed	45	45	55	55	55

This business idea is premised on designing of 2sites per month which translates into 24 units annually at an average of 35 sq mtrs per site hence space covered of 840 sq mtrs for the first year. This service delivery is ecpected to grow to 1,980 sq mtrs designed in year 5. Depending on the marketing strategy, the business has good market demand.

The Investment could be financed by the Owner's Equity. The profits from the business could later be ploughed back into the business in the subsequent years.

Landscaping and Compound Designing Process

A landscaping project doesn't have to be overwhelming whether you're revamping an existing yard, or landscaping for new construction. The process of landscaping a yard can be broken down into two phases: design and construction.

The designing phase consists of research, idea gathering, and planning. During this phase you, the client, will work closely with a landscape designer architect that specializes in compound design. Together you will address design considerations such as the desired purpose for you yard, what features will be included and what landscaping style will be employed. The designing phase ends with you receiving a completed plan that proposes location and materials for hardscapes and outdoor living features, as well as plants.

The construction phase consists of the actual building process. Most designers will sub out the work to a contracting company that specializes in landscaping. Sometimes, one contractor will complete all of the construction, other times multiple companies will be involved. During this phase the designer and contractor will work closely together to bring to life design plan created in the previous phase. At the end of construction, after testing and cleaning, a yard will have been transformed into a space that's ready for you to enjoy with friends and family.

4.0 Minimum scale of investment, capital investment requirements and equipment

This kind of investment can cost about USD 6,690 in the first trading year. This business idea has been developed with emphasis on small enterprises as defined by the MSME Policy document.

This kind of investment can cost about USD 6,710 in the first trading year. The main equipment required is given in the table below.

Table 2: Investment Programme

Capital Investment Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
1	Fixed Assets			4,710	0	180	2,600	50	0	7,540
1a	Vehicle	1,000	1	0	0	0	1,000	0	0	1,000
1b	Furniture, Equipment & furnishings			4,710	0	180	1,600	50	0	6,540
aa	Office Furniture, Equipment, Computers, Tools and accessories			1,000						1,000
a	Lawn mowers	800	5	2,400			1,600			4,000
b	Measuring Tapes	2	20	40						40
c	Protective Gloves	10	20	200		50		50		300
d	Protective Googles	13	20	260		130				
e	Watering Cans	5	10	50						
f	Horse Pipes	40	5	200						
g	Carrier basins	10	5	50						
h	Levelling Rakes	10	5	50						
i	Wheel barrows	16	5	80						
j	Gumboots	8	20	80						
k	Branded Overalls	15	20	300						
2	Preliminary Expenses			1,000				0		1,000
3	Working Capital			1,000						1,000
TOTAL INVESTMENT				6,710	0	180	2,600	50	0	9,540

A Delivery Van would be bought in the third year to meet the deliveries demanded in the fourth and fifth year.

5.0 Raw materials requirements

The raw material requirements for compound designing are mainly dependent on the client as their needs differ. The most used raw materials include grass, decorative stones, soil, and flowers among others. All these are readily available in Uganda.

6.0 Market Analysis

6.1 Marketing Strategy

For any business to grow beyond the corners of the street they are operating from it must be ready and willing to utilize every available means to advertise and promote the business. This investment profile intends to leverage on the following to promote and advertise the business.

- Encouraging its loyal customers to help and use Word of Mouth mode of advertisement (referrals)
- Advertising the business in relevant magazines (real estate magazines), local newspaper, local TV stations and local radio station
- Promoting the business online via our official website
- Leverage on the internet and social media platforms like; Instagram, Google+, LinkedIn, Facebook , Twitter, Whatsapp to promote the business
- Direct coupon mailing approach to introduce our landscaping business to residence and property managers
- Distribute our fliers and handbills in target areas
- Attend landlord and residence association meetings with the aim of networking and introducing our landscaping business.

6.2 Pricing Strategy

From our findings, the average cost of landscape services varies and it is dependent on loads of factors. For example, normal landscaping services include prices for services such as regular lawn maintenance which includes edging, mowing and blowing, fertilization, weeding beds, hedge trimming, shrub removal, replacement or moving, grass replacement, lawn care, irrigation among other landscape related services that may be required by a client. Usually, these services are priced separately in most cases and in some instances; they may be priced together into one monthly service price.

The business owner should be able to conduct effective survey to adopt a price format that is ideal for the kind of services they are going to offer to the client. It is however advisable to ensure that you work within the client's budget to deliver an excellent service.

7.0 Project Production Costs

`		Quantity	Year 1	Year 2	Year 3	Year 4	Year 5
	Direct Costs/ Raw materials / Purchase costs		23,300	26,562	32,406	45,692	67,167
a	Grass seedlings	700.0	8,400	9,576	11,683	16,473	24,215
b	Decorative Stones kgs	700.0	400	456	556	784	1,153
c	Flowers	1,500.0	12,000	13,680	16,690	23,532	34,593
d	Pesticides ltrs	500	2,500	2,850	3,477	4,903	7,207
7.2	Personnel and Labour Costs		7,200	8,208	10,014	14,119	19,908
a	Manager and marketing personnel	1.0	1,200	1,368	1,669	2,353	3,318
b	Casual Laborers	5.0	6,000	6,840	8,345	11,766	16,590
7.3	Overhead Costs-Utilities, Office expenses		6,413	6,896	8,377	11,101	15,091
a	Rent		2,590	2,953	3,602	5,079	7,466
b	Transport and fuel		600	684	834	1,177	1,730
c	Stationery		325	371	452	637	937
d	Energy*		810	923	1,127	1,588	2,335
e	Water*		810	923	1,127	1,588	2,335
f	Internet		100	114	139	196	288
7.4	Depreciation		1,178	928	1,096	835	625.9
	Total Production Costs		36,913	41,666	50,796	70,912	102,167

8.0 Sources of Supply of Machinery and equipment and raw materials

The raw materials can be got from Katwe in Kampala, Uganda and China Machines, Jinja Rd Uganda.

9.0 Government Facilities and Incentives Available

The Government is willing to support Ugandan Investment projects through the "Be Uganda Buy Uganda" initiative by providing financing, exposure and basic infrastructure so as to enable growth of such Investments in Uganda.

10. 5-Year Profitability Analysis

With the total unit costs of production at US$ 36.3 sq meter designed, the selling price will be expected to be US$ 45 and this will an estimated net profit before tax of US$ 14,497 in the fifth year. The Average Auunal return on investment is at 33%. The payback period for this project is between the 4th and 5th year as illustrated in table below.

Activity	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue from compound designing	37,800	43,200	52,800	74,250	108,900	316,950
Cost of Goods Sold	30,500	34,770	42,419	59,811	87,076	254,576
Gross Profit	7,300	8,430	10,381	14,439	21,824	62,374
Rent	2,590	2,953	3,602	5,079	7,466	21,690
Transport and fuel	600	684	834	1,177	1,730	5,025
Stationery	325	371	452	637	937	2,722
Energy*	810	923	1,127	1,588	2,335	6,783
Water*	810	923	1,127	1,588	2,335	6,783
Internet	100	114	139	196	288	837
Depreciation	1,178	928	1,096	835		4,036
Operating Expenses	6,412.5	6,896.0	8,376.9	11,100.6	15,091.0	47,877
Net Profit(Loss) before Interest and Tax	888	1,534	2,004	3,338	6,733	14,497
Taxation (30%)	266	460	601	1,001	2,020	4,349
Net Profit/(Loss) After Tax	621	1,074	1,403	2,337	4,713	10,148
Cumulative Net Profit(Loss) After Tax	621	1,695	3,098	5,434	10,148	10,148
Annual Return on Investment(After Tax)	18%	39%	33%	24%	49%	
Average return on capital	33%					

2.6.3 Fumigation Services

1.0 Introduction

Fumigation is a method of pest control that completely fills an area with gaseous pesticides or fumigants to suffocate or poison the targeted pests within. Fumigation is a service that is required on a regular basis in a homes and businesses. There is growing demand for controlling pests. Increasing health concerns are driving the market growth for fumigation services. The fumigation services market is segmented on the basis of targeted pests which include; ants, bed bugs, termites, ticks, weevils , snakes and flies to mention but a few. The market is also segmented according to the mode of fumigation: natural fumigation and artificial fumigation. The market is also segmented into commercial and residential with commercial expected to be more profitable. This idea targets residential fumigation for the first year but hopes to incorporate commercial projects by year 3.

2.0 Business capacity, Technology and Processes Description

Table 1: Projected Scale of Operations

Year	Year1	Year 2	Year3	Year 4	Year 5
Fumigated Projects Per Month	10	12	16	20	25.00
Fumigated Projects Per Year	120	144	192	240	300

This business idea is premised on fumigation of 10 units per month which translates into 120 units for the first year. This service business is estimated to grow by 10% per annum for the next 4 years, resulting into annual service delivery of 300 fumigated units in the 5th year. Depending on the marketing strategy, the business has good market demand.

Technology

The main equipment used to fumigate are sprayers, dusters and protective wear.

Fumigation Process

Fumigation is a simple process that begins with mixture of the pesticides or insecticides correctly followed by spraying, sprinkling or pouring of the pesticide solution into the affected areas in the recommended and correct quantities.

4.0 Targeted Scale Of Investment, Capital Investment Requirements And Equipment

This kind of investment can cost about USD 3,795 in the first business year. This business idea has been developed with emphasis on medium enterprises as defined by the MSME Policy document. The main equipment required include sprayers, dusters, gloves, googles, nose masks, gumboots and overalls. The Investment could be financed by the Owner's Equity. The profits from the business could later be ploughed back into the business in the subsequent years.

Table 2: Investment Programme

Capital Investment Item		Unit Cost	Qty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
1	Fixed Assets			1,795	5	185	4,565	55	0
1.1	Vehicle	4,000	1	0	0	0	4,000	0	0
1.2	Furniture, Equipment & furnishings			1,795	5	185	565	55	0
	Office Furniture, Equipment, Computers, Tools and Accessories			1,000					
	Sprayers	28	20	280			280		
	Dusters	1	50	5	5	5	5	5	
	Protective Gloves	10	20	100		50		50	
	Protective Googles	13	20	130		130			
	Nose Masks	20	20	200			200		
	Gumboots	8	20	80			80		
	Branded Overalls		20						
2	Preliminary Expenses			1,000			500	0	
3	Working Capital			1,000					
TOTAL INVESTMENT				**3,795**	**0**	**185**	**4,565**	**55**	**0**

A Delivery Van would be bought in the third year to meet the deliveries demanded in the fourth and fifth year.

5.0 Raw materials requirements

The main raw material for fumigation is pesticides or herbicides and water. The pesticides and herbicides can be sourced locally from MTK and shops around Ben Kiwanuka Street. Water is always got from the Client's premises. The quantities and quality of pesticides used are dependent on the client.

6.0 Market Analysis

Competitive Analysis

The fumigation industry is comprised of many service providers in the central region however there a less fumigators in other parts of the country with high demand for example in the Eastern Uganda where there are numerous establishments that need fumigation services such as learning institutions like secondary schools.

Risk Analysis

The fumigation project may face a number of risks with the main one being the risk of obtaining health issues caused by exposure to the toxic pesticides and insecticides used to carry out fumigation

Situational Analysis

The growing agricultural sector has led to increased demand for fumigation services as farmers require this to be done for both their plants and livestock to ensure that they do not lose their produce and to also ensure that they produce high quality yields.

Due to increase in population in Uganda, there has been an increased need for fumigation in homesteads and other establishments that have group gatherings such as schools, offices, and hospitals and this is don't on a regular basis for example in schools every two months

Marketing Strategy

The main marketing strategy suggested by this business idea is marketing through internet (Facebook Ads, Instagram) and distribution of flyers and brochures around cities in Uganda. Quality of the service rendered is also key as it would lead to referrals.

7.0 Project Production Costs

`		Quantity	Year 1	Year 2	Year 3	Year 4	Year 5
	Direct Costs/ Raw materials /Purchase costs		1,000	1,500	2,000	4,000	8,000
a	Pesticides		1,000	1,500	2,000	4,000	8,000
7.2	Personnel and Labour Costs		4,080	4,080	4,080	4,080	4,080
	Manager and marketing personnel	1.0	1,200	1,200	1,200	1,200	1,200
	Casual Labourers	3.0	2,880	2,880	2,880	2,880	2,880
7.3	Overhead Costs-Utilities, Office expenses		1,260	680	780	780	2,000
	Rent		630	200	200	200	200
	Transport and fuel		300	300	400	400	800
	Stationery		80	100	100	100	300
	Energy*		100	100	100	100	300
	Water*		100	100	100	100	300
	Internet		50	80	80	80	300
7.4	Depreciation		224	196	172	150	0.0
	Total Production Costs		**6,564**	**6,456**	**7,032**	**9,010**	**14,080**

8.0 Sources of Supply of Machinery and equipment and raw materials

The raw materials can be got from MTK Nasser Road Kampala, and other distributor shops along Ben Kiwanuka Street.

9.0 Government Facilities and Incentives Available

The Government is willing to support Ugandan Investment projects through the "Be Uganda Buy Uganda" initiative by providing financing, exposure and basic infrastructure so as to enable growth of such Investments in Uganda.

10. Profitability Analysis

The average price of a project is estimated at 50 $ and the payback period for this project is between year 3 and 4.

Activity	Baseline	Year1	Year 2	Year3	Year 4	Year 5	Total
Revenue from fumigation		6,000	7,200	9,600	14,400	18,000	55,200
Cost of Goods Sold		5,080	5,580	6,080	8,080	8,000	32,820
Gross Profit	0	920	1,620	3,520	6,320	10,000	22,380
Operating Expenses		1,260.0	680.0	780.0	780.0	2,000.0	
Depreciation Expenses		224	196	172	150	0	743
Total Operating Expenses		1,484	876	952	930	0	4,243
Net Profit(Loss) before Interest and Tax		(564)	744	2,568	5,390	10,000	18,137
Development Loan Interest Expense		0	0	0	0	0	0
Net Profit/(Loss) before Tax		(564)	744	2,568	5,390	10,000	18,137
Taxation (30%)	30%	(169)	223	770	1,617	3,000	5,441
Net Profit/(Loss) After Tax		(395)	521	1,798	3,773	7,000	12,696
Cumulative Net Profit(Loss) After Tax		(395)	126	1,923	5,696	12,696	12,696
Annual Return on Investment(After Tax)			**11%**	**44%**	**44%**	**81%**	