**NAME:** ATOGWE VICTORIA ALOIYE

**MATRIC. NO.:** 18/ENG08/003

**COLLEGE:** ENGINEERING

**DEPARTMENT:** BIOMEDICAL ENGINEERING

**COURSE CODE:** AFE 202

**COURSE TITLE:** FOOD PRODUCTION AND HEALTH AWARENESS

A FEASIBILITY REPORT / BUSINESS PLAN FOR THE DEVELOPMENT OF A FIVE HUNDRED HECTARES FRUIT & VEGETABLE FARM AND ESTABLISHMENT OF 548 LBS PER DAY FRUITS & VEGETABLES AT PALM-FIELD ESTATE ENEKA, RIVERS STATE UNDER THE SPONSORSHIP OF THE MINISTRY OF AGRICULTURE IN RIVERS STATE.

The undersigned reader acknowledges that the information provided in this business plan is a confidential intellectual property; therefore, the reader agrees not to disclose it to a third party without the express written permission of the promoters of the proposed business.

It is acknowledged by the reader that information furnished in this business plan is in all respect confidential in nature, other than information which is in the public domain through other means and that any disclosure or use of same by the reader, may cause serious harm or damage to the promoters of the proposed business.

Upon request, this document is to be immediately returned to the promoters of the proposed business.

Signature:

Name:

Date:

**Executive Summary/ Brief Description of the Project**

FruVeg Farm is based in Palm-Field Estate Eneka, Rivers State. The mission is to provide high quality, nutritional, and flavorful vegetables and fruits for consumption in both near and remote regions of Nigeria. Additionally, the company will provide high quality planting materials for use nationwide.

FruVeg Farm composes of two successful farms, a vegetable farm and a fruit farm, each with sub-farms. The idea behind the business is to provide healthy and delicious vegetables and fruits to the public. In addition to vegetables and fruits, the company plans to produce and market manure compost garden amendment products.

FruVeg Farm plans to concentrate on vegetables as its primary product. This includes growing carrots, onions, spinach, pumpkins, okra, water leaf, pepper, cabbage and cucumbers. The farm will have a capacity sufficient to produce in excess of 200,000 lbs. of vegetables per year.

FruVeg's management team is led by Miss Atogwe Victoria as a Farmer and Business Manager, who has extensive knowledge of the agricultural field.

**Sponsorship**

The project is sponsored by The Ministry of Agriculture in Rivers State.

**Management**

FruVeg Farm’s management team is led by Miss Atogwe Victoria Business Manager and Farmer, who has extensive knowledge of the industry and has been tracking vegetable and fruit trends for 30 years.

The company's management philosophy is based on responsibility and mutual respect. FruVeg Farm’s has an environment and structure that encourages productivity and respect for customers and fellow employees. The FruVeg Farm team is organized into three groups:

* **Management:** They will be responsible for supervising and participating in the daily operations of the facility.
* **Daily Maintenance:** They will be responsible for the daily preservation and conservation of the farms
* **Contract Personnel:** They will be utilized initially for the moving and setting up of the vegetable farm, greenhouses, and the building of the manure composting facility.

Overall, FruVeg Farm’s will have 25 personnel. The company expects to employ 8 temporary employees during the equipment re-location phase, 10 employees on a permanent basis, and 9 part-time employees.

**Market and Sales**

The organic market provides very little of the nation's food supply, not up to 5%. Due to this, individuals mostly plant their fruits and vegetables to get them fresh and with no cost attached. With this trend, FruVeg Farm’s target is:

* Selling to wholesale live vegetable markets nationwide that sell organic produce.
* Fresh farmers' markets.
* Nursery outlets selling composted manure.

The target customers include oriental vegetable markets demanding organic and semi-organic green vegetables, and private individual buyers through direct selling and farmers markets. The company will continue to service the existing customers of the purchased vegetable farms. In its greens production the company will target virtually all main food outlets. The company plans to use the Internet as one of its marketing channels in the future.

FruVeg Farm will initially market and supply its products to target customers. The company would further its marketing opportunities on the Internet. To this extent, the company would like to set up a website to market its products. The company will utilize aggressive advertising strategies to further market its products.

**Technical Assistance**

The company has a working agreement with the Ministry of Agriculture in Rivers State, and also a working relationship with BOA (Bank of Agriculture). The two parties i.e. FruVeg Farm and Bank of Agriculture have agreed to finance production of the 500hectares of fruits and vegetables through a loan at 9% interest rate (anchor borrower’s scheme).

**Government Support and Regulation**

The business conforms with the economic diversification objective of the government. It also supports foreign exchange and import reduction conservation of government. It creates economic opportunities, market access, improved income for farmers and support food security objective of government. The project will benefit from government intervention fund in the agriculture sector. The project will also benefit from the favourable policy of zero duty for agricultural and equipment import. Restriction of forex for all food products will also widen market opportunity. The project will contribute significantly to employment, output increase, stable price and stable exchange rate.

**Timelines of Project**

The project will be completed within 9 months preferably between April, 2020 to January, 2021.

**Estimated Project Cost and Revenue**

**Start-up Requirements:**

|  |  |  |
| --- | --- | --- |
| **ACTIVITY** | **PRICE** | |
| **₦** | **K** |
| Legal | 1,700,000 | 00 |
| Facilities modification | 15,000,000 | 00 |
| Seed | 54,000 | 00 |
| Organic herbicides/pesticides | 450,000 | 00 |
| Consultants | 2,000,000 | 00 |
| Insurance | 100,000 | 00 |
| Research and development | 2,250,000 | 00 |
| Expensed equipment | 22,500,000 | 00 |
| Other | 1,000,000 | 00 |
| **Total Requirements** | **45 054 000** | **00** |

**Land Clearing:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ACTIVITY** | **QUANTITY** | **PRICE** | |
| **₦** | **K** |
| Land Clearing | 1 Hectare | 150,000 | 00 |
| Cross Cutting | 1 Hectare | 25,000 | 00 |
| Rome ploughing | 1 Hectare | 80,000 | 00 |
| **Sub total** | 1 Hectare | **255,000** | **00** |
| **Total** | 500 Hectares | **127,500,000** | **00** |

**Equipment:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NAME** | **QUANTITY** | **COST** | | **PRICE** | |
| **₦** | **K** | **₦** | **K** |
| Tractor | 2 | 4,405,000 | 00 | 8,810,000 | 00 |
| Soil ripper | 2 | 585,000 | 00 | 1,170,000 | 00 |
| Rotary cutter | 2 | 635,000 | 00 | 1,270,000 | 00 |
| Seed planter | 2 | 1,800,000 | 00 | 3,600,000 | 00 |
| Fertilizer spreader | 2 | 1,250,000 | 00 | 2,500,000 | 00 |
| Combine Harvester | 2 | 18,630,000 | 00 | 37,260,000 | 00 |
| **Total** |  | **27,305,000** | **00** | **54,610,000** | **00** |

**Operating Cost:**

|  |  |  |
| --- | --- | --- |
| **WORKING CAPITAL** | **PRICE** | |
|  | **₦** | **K** |
| Ploughing/Ha | 20,000 | 00 |
| Harrowing/Ha | 20,000 | 00 |
| **Sub total** | **40,000** | **00** |
| **For 500 Ha** | **20,000,000** | **00** |
| Mechanization and storage | 120,000 | 00 |
| **For 500Ha** | **60,000,000** | **00** |
| Input / Ha | 92,000 | 00 |
| **For 500Ha** | **46,000,000** | **00** |
| Area yield insurance | 15,000 | 00 |
| Produce aggregation | 7,000 | 00 |
| Geo Spatial Service | 5,000 | 00 |
| **Sub total** | **27,000** | **00** |
| **For 500Ha** | **13,500,000** | **00** |
| Interest per hectare | 23,000 | 00 |
| **For 500Ha** | **11,500,000** | **00** |
| Total cost per hectare | 250,000 | 00 |
| **Total cost for 500Ha** | **125,000,000** | **00** |
| Loan principal and interest (cost per Hectare) | **267,500** | 00 |
| **Total for 500Ha** | **133,750,000** | **00** |
| **Irrigation cost for 500Ha (excluding fixed cost)** | **24,100,000** | **00** |

**Amortization:**

|  |  |
| --- | --- |
|  | **₦ K** |
| **Land clearing amortization (per hectare)** | **21,000 : 00** |
| **Land clearing amortization (500hectare)** | **12,000,000 : 00** |

**Revenue:**

|  |  |
| --- | --- |
| **YIELD PER HECTARE 3TONNES**  **AT ₦150,000 PER TONNE** |  |
|  | **₦ K** |
| Revenue per hectare | 440,000 : 00 |
| For 500Ha | 220,000,000 : 00 |
| Net revenue for 500Ha (without amortization) | 67,100,000 : 00 |
| Net revenue with amortization (500ha clearing) | 55,000,000 : 00 |
| 2nd Production Cycle |  |
| Net revenue | 43,050,000 : 00 |
| Net revenue with amortization (500ha land) |  |
| Annual Net Revenue (1st + 2nd Cycle) | 98,050,000 : 00 |

**Funding Mechanism**

The Ministry of Agriculture in Rivers State would provide 500Ha of cleared Farmland, 300Ha for vegetables and the remaining 200Ha for fruits. The company is seeking ₦750,000,000 in both short-term and long-term loans to finance the purchase of FruVeg Farm’s new facilities, and cover start-up expenses and first year losses. It is estimated that the company will begin to make a profit in Year 2 of operations. The company does not expect to have any cash flow problems during the first four years of operations.

**Conclusion**

The project is technically feasible, realistic, a good addition to the economy and commercially viable. It is therefore recommended for funding and development.