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AFE 202 FOOD SECURITY

## **CHAPTER 1: EXECUTIVE SUMMARY**

Cucumber is one of the most important exotic vegetables in Nigeria. Its profile is raising due to widespread knowledge of its inherent health benefits. To sustain the availability of the crop in order to meet increasing demand, there is the need to enhance its productivity. Crop productivity depends on the efficient use of both material and human resources utilized in the production process. This study therefore examines profitability and efficiency of cucumber production in Ikot abasi local government area of Akwa ibom state. Primary data on socioeconomic characteristics of farmers, input and output quantity and prices were collected from 13 cucumber farmers and analysed using descriptive statistics, budgetary technique, etc. Majority of the farmers were female (96.7%) with average age of 46.4 years. An average of 17.1 years of farming experience cut across both gender groups. The average hectare was 1.5 with average yield of 5,368 kg/ha. Budgetary analysis revealed that net profit, profit margin percentage and returns on every naira invested. The results showed clear indication that cucumber production is profitable in the study area. The result of the random frontier indicated that farm size and volume of agrochemical used significantly influenced cucumber production. Age, education status of farmers and access to credit were the significant factors determining technical efficiency of the farmers in the study area. The study recommends capacity building for farmers on an appropriate combination of resources. Seeing this “Hallelujah culture” project set to be commissioned by Miss Bassey Marvellous will proceed with the business plan that will be discussed in this feasibility report

## **CHAPTER 2: INTROCUCTION**

In 2017, the idea of growing vegetables in an unexploited space in a small village (afaha ukwa) in Eket, Akwa ibom state. Nigeria emerged to Miss Basse, the commissioner of the project. The farm is to be called the "Hallelujah culture". The main objective of this farm was to produce good marketable and healthy vegetables. Although it basically begun with cucumber, in a long run, it intends to plant other vegetables and help feed our nation.

Vegetable farming involves the growing of vegetables for human beings; commercially it is sold in market for profit. Vegetable farming began in several parts of the world more than ten thousand years ago. Initially humans could only grow vegetables via manual labour, but as civilization came, livestock were domesticated and used to plough the farm, for vegetable plantation. In the recent time, nearly all vegetable farming processes are mechanised. In Nigeria, vegetable farming is one of the easiest agricultural engagements a farmer can venture into and the demand for vegetable is year round, creating a stable stream of income for the would be farmer.

The fact that most vegetables are highly perishable was of course considered; therefore developing marketing strategies was put in place even before cultivating the crops. Once the market for the produce was well thought out and developed, proper field selection started, considering the field topography, soil type and water availability and quality, also the price of the land was crucial since it determines if the land would be bought or leased. Another factor we had to consider was the pests present in the area since played a role in deciding which crops could be cultivated and survive without suffering from countless attacks from pests. Research on the relevant government policies and implications regarding farming were also reviewed. Seeing that finding sponsors for the Hallelujah culture was necessary, the enterprise sought for grants from government and other private bodies willing to offer; of course they will come to inspect the site based on the application. We have been waiting patiently for our application to be accepted

## **GOALS**

To become one of the leading cucumber farms in Nigeria but also on the global stage by producing high quality and well refined products.

## **CHAPTER 3: MARKET AND MARKETTING**

Hallelujah culture started with cucumber, cucumber farming can be very profitable if done the right way. Smart Nigerians can make millions of naira from cucumber farming for a size of land. Cucumber farming can be very profitable if done the right way. Harvest starts from 36-45 days , the demand for cucumbers is quite huge in Nigeria as they are used in preparing salads and other types of food. Once the cucumbers have been harvested, there should be a defined process to move the fruit to the market. A readily available market coupled with bountiful harvest is a perfect recipe for success in cucumber farming. According to statistics, cucumbers are the 8<sup>th</sup> most grown vegetable crops around the world, right after maize, sugar cane, cassava, tomatoes, water melons, sweet potatoes and dry onions. Its large production rate (about 779,000 in 2014 alone) is in direct proportion to the crops local and international demand, making its production for local retail or export a lucrative one for people to venture into.

### **MARKETING PLAN**

It is always better to sell cucumbers to organized markets like ShopRite, hotels and vegetable shops, etc. a kilogram of cucumber goes for #240 - #400. Seeing how competitive and hard to get a contract from such organized markets, selling to small markets around farm town or larger markets like aba market is a good start. Its only disadvantage is that the prices are unpredictable. Hallelujah culture will of course experience peak and off peak times every year. Prices of fresh cucumbers can vary from up to 500% in a year.

As farmers instead of supplying to others, selling our products should be considered. We could own a stand in the small town market for a start and later on own a retail store. Online stores are also a thing of the season and are also a very good marketing idea. Either way, whether we sell our product directly or through intermediaries the trick is to be providing the customers with eye catching products, as well making the products as available as you can, this will keep us ahead of our competitors.

Hallelujah culture will contribute to the daily sales of cucumber in the daily small markets. The enterprise is targeting retail shops like testimony plaza as well as major hotels in the environment like Eden hotels, Mobil guest house, Villa marina, etc. retail stores in the capital city Uyo are also in considered but there is a lot a lot of competition although locally in the town of Eket, there is no competition. To supersede our competitors, we intend to provide fresh newly harvested products and on time.

### **COMPETITOR ANALYSIS FOR HALLELUJAH CULTURE**

People will buy from us because of the following reasons

- 1) The provision of high quality and purely processed cucumber
- 2) Unique and standard packaging
- 3) Excellent customer care services
- 4) Fair and lowest possible prices

## CHAPTER 4: PROJECT ENGINEERING

Soil test was carried out by a soil analyst on the land to be purchased; soil fertility, as well as its topography was considered (Flat farmland is better, sloppy land encourages erosion) the soil test revealed the pH of the soil, it also showed the level of nutrients in the soil. The soil test showed the level of nitrogen, potassium, phosphorus, calcium, magnesium, boron and other micro nutrients in the soil. This of course guided the farmer on the type of fertilizers to apply to his cucumber farm. Diseases in the soil and soil microbial count were also shown and Soluble, chloride free fertilizers like Potassium nitrate, Calcium nitrate, Monopotassium phosphate and microbial inoculants were purchased to be used. #200,000 was set aside for the drip irrigation of the cucumbers. With deep irrigation, water is saved and labour cost is reduced, fertigation is enabled and yield is significantly increased.

Hallelujah culture intends to grow cucumbers under protected cultivation (Greenhouses, polytunnels or net houses) and in open fields. Since cucumber plants can only grow under tropical conditions, this will definitely increase its productivity.

## CHAPTER 5: MATERIALS, PRODUCTION AND PLANTS

### COST FOR ONE ACRE OF CUCUMBER

MATERIAL	RATE
Rent for one acre of land	#20,000

Fertilizer	#200,000
Manure	#20,000
Pesticides	#20,000
Hybrid seeds	#35,000
Labour for 3 months	#120,000
Drip irrigation	#200,000
Knapsack sprayer	#5,000
Staking	#30,000
Soil test	#10,000
Farm tools	#5,000
TOTAL	565,000

#### COST FOR POWER HOUSE

MATERIALS	RATE
Structure	#1,500,000
Tank (200liters)	#20,000
Pumping machine (1hp)	#40,000
PVC pipe	#2,000
Timer and panel	#40,000
Electrical wire and socket	#10,000
Filter and knobs	#38,000

## START UP EXPENSES

START UP REQUIREMENTS	COST
Farm structures	#2,500,000
Power house	#1,650,000
Green house	#250,000
Supplies	#545,000
Transport	#60,000
Miscellaneous	#250,000
Rent for farm land	#20,000
<b>Total</b>	<b>#5,275,000</b>

## CHAPTER 6: LOCATION AND SITE



Hallelujah culture will be sited in Afaha Uqua, Eket, Akwa Ibom state. This location was chosen because the inhabitants of the land have a strong love and passion for farming, also the plantation of cucumbers has been very successful in this area. Although there are various cucumber farmers in this area, there is little competition as none of them are large scale commercial farmers. The site also has good roads for accessibility and evacuation of farm produce minding the fact that cucumbers spoil within days. The topography of the farm was very ok ant the results of soil test were good. Climate of this area was also considered as well as the availability of water and electricity. Apart from all this positive features, the land is close to a well-known and popular local market.

## **CHAPTER 7: PROJECT IMPLEMENTATION**

After successfully becoming the most sort after and reliable distributors of cucumbers in the local markets hallelujah culture will proceed to partnering with hotels and restaurants in Eket like Mobil guest house, Eden hotels, Villa marina hotel even the Testimony Plaza. By our fourth to fifth year, hallelujah culture would have owned its own retail store, yet still supplying other stores, restaurant and hotels. We would also venture into planting and selling other vegetables and own an online store through which orders could be placed and vegetables would be delivered on the doorstep of our customers

For this to happen, we would be dependent on our existing local partners to keep purchasing our produce. Advertisement would be a very useful because to achieve all this goals, we would need profit. With the support of our partners, letters will be sent to major retail stores and hotels with our freshest irresistible products for evidence. Testimonies of our reliability could also be included. At this time we would have acquired a larger farmland owned by the enterprise and employed more labourers. Hallelujah culture will also be open to training upcoming farmers, we would also apply to NYSC in the hope that we are inspiration enough to house the upcoming leaders of tomorrow and train them. A successful hallelujah culture farmer who has been using hallelujah culture products will be able to demonstrate our model to our partners. Our most enthusiastic farmers will hold field days at which all farmers and upcoming farmers in the community will be invited to.

## CHAPTER 8: FINANCIAL AND ECONOMIC EVALUATION

It is assumed that one acre of land will yield 500 bags of 40kg (20 tonnes) of fresh cucumbers after 3 months. In open Nigeria, fresh cucumbers are sold in bags. A fully packed bag is about 40kg. It sells for #3,000 - #8,000 depending on the season. Revenue in cucumber farming can vary a great deal CUCUMBER FARMING PROFIT ANALYSIS SCENERIO 1

Revenue	
500 bags at #3000 each	#1,500,000
<b>COST</b>	
Rent of one acre of land	#20,000
Fertilizer	#100,000
manure	#20,000
Pesticides	#20,000
Hybrid seeds	#35,000
Drip irrigation	#200,000
Knapsack sprayer	#5,000
Tools	#5,000
Staking	##30,000
Soil test	#10,000
TOTAL	565,000

<b>PROFIT</b>	
	935,000

### CUCUMBER FARMING ANALYSIS SCENERIO 2

<b>REVENUE</b>	
500 bags at #6,000 each	#3,000,000
<b>COST</b>	
Rent of one acre of land	#20,000
Fertilizer	#100,0000
Manure	#20,000
Pesticides	#20,000
Hybrid seeds	#35,000
Labour for 3 months	#120,000
Drip irrigation	#200,000
Knapsack sprayer	#5,000
Farm tools	#5,000
Staking	#30,000
Soil test	#10,000
TOTAL	#565,000
<b>PROFIT</b>	#2,435,000

As shown in the table, when a bag of cucumbers is sold for #3,000, expected revenue is #1.5 million, when a bag is sold for #6,000, expected revenue is #3 million.

N/B: a bag of cucumbers could be sold for as high as #8,000 in an open market during the lean period. If the products are sold in a more organized market like ShopRite or hotels, a kilogram of fresh cucumbers could be sold for #400, and 20 tones would yield #8 million

## **CHAPTER 9: PROJECT EVALUATION TECHNIQUES**

Hallelujah culture intends to produce high quality and processed cucumber to our teeming customers here in Nigeria and beyond. Our aim as a business will be to ensure that we not only generate revenue but maximize profit as well and to this end, we intend to create multiple sources of income so as to have a solid bottom ground. We are in business to produce both food and raw materials for people and industries in commercial quantities. Our products and services are listed below:

- 1) Cultivation and sale of variety of cucumber (organic and non-organic)
- 2) Whole sale/ retail of cucumbers
- 3) Consultancy services
- 4) Distribution services
- 5) Export services

### **OBJECTIVE FOR HALLELUJAH CULTURE IN CUCUMBER FARMING**

- 1) To increase production efficiency by 10% of a year
- 2) To maintain profit margins at 20-25% through close attention to expenses and cost of cucumber farming
- 3) To develop a product based company whose goal is to exceed customers' expectations
- 4) To develop a sustainable farm, surviving of its own cash flow

## **CHAPTER 10: CONCLUSION**

Cucumber is one of the most exotic vegetables in the country. it is the fourth most cultivated vegetable and known to be one of the best foods for overall health. Cucumber is a very good source of vitamins A, C, K, B6, Potassium, pantothenic acid, etc. hallelujah culture wants to compete with the best in the industry, which is why asides from the fact that we have secured and acquired farmland, we intend to employ and train our employees to fit into the ideal picture of the 21<sup>st</sup> century cucumber workforce that WE WANT TO BUILD.