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DEPARTMENT: MEDIA AND COMMUNICATION.

Matric: 18/SMS04/069

Course: Afe 202

Level: 300

Assignment: Prepare a business plan on a chosen agricultural enterprise following the guideline in the note.

The document is my (Osaremen Yembett Ofeimuh) business plan for the establishment of a 400 hectares Groundnut Plantation and establishment of a 20 tonnes per day groundnut oil extraction plant at the site of Abuad Farm of Afe Babalola University. Ado Ekiti, Ekiti state, Nigeria. The project is conceived by my agriculture company YembettAgric Limited.

The 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:

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**Executive Summary/ Project Description**

This business plan examines the feasibility of and indeed economic viability of the development of a 400hectares groundnut plantation and the establishment of a groundnut oil extraction plant in Ado Ekiti by Afe Babalola University and Afe Babalola Farmer’s Cooperative Society Limited. The farm will produce about 1,200tonnes of groundnuts in a production cycle. The groundnut oil extraction plant will process about 4,200tonnes of groundnut beans into edible groundnut oil, groundnut cake for livestock industry and groundnut sludge for soap, cosmetics and paint industry. There is high domestic demand for these products because of our huge population. The North and in particular Kano, Katsina, Kaduna, Jigawa, Zamfara and Kebbi are the major groundnut producing states in Nigeria.

Nigeria is the largest groundnut producing country in West Africa, accounting for 51% of production in the region. The country contributes 10% of total global production and 39% that of Africa.

The proposed project will create economic opportunities, impact positively on the people and help conserve scarce foreign exchange. The entire groundnut to be processed will be sourced locally through direct production, contract farming in Ekiti State and direct purchase from smallholder farmers in other production areas. The project will create market access, improve income of farmers and contribute significantly to food security. It will also generate satisfactory returns for sponsors and investors.

**Sponsorship**

The project is sponsored by Aare Afe Babalola, a legal luminary and founder of Afe Babalola University. Aare Afe Babalola is promoting the productivity of smallholder farmers in Ado Ekiti through the Afe Babalola Farmer’s Cooperative Limited. The University has a Department of Agriculture and experts with many years of experience in the project being proposed. YembettAgric Limited will be responsible for the management consultancy of the projects.

**Management**

The management will comprise of a democratically elected Board of Directors at the apex of the organization structure. This will be made up of shareholders and member of the cooperative who have stake in the survival, growth and profitability of the business as well as distinguished agribusiness professionals of proven integrity and vast experience in the project area. The prime objective of the board will be to give strategic directions and policies that will ensure long term success of the organization. The board will ensure that the organization complied with all standards set by regulatory authorities.

The Managing Director/President shall be responsible for the co-ordination of the day to day management of the cooperative business. He is accountable to the Board of Directors; he will mobilize organization resources to achieve set goals. He will manage business risks and focus on wealth creation.

**Technical Assistance**

Perhaps fortunate for my company, the university has working relationship with IITA (International Institute of Tropical Agriculture, Ibadan) through an executed MOU. IITA has mandate in Groundnut beans production and processing and will provide technical assistance in this regard. The University also has a working relationship with BOA (Bank of Agriculture) and we are collaborating on Aare Afe Babalola Annual Agric Expo where the founder appreciates Ekiti Farmers through monetary award to the best 3farmers in each local government area of the 16 L.G.A in Ekiti State and the overall best farmer in the state. Bank of Agriculture has agreed to finance production of the 400hectares of groundnut through a loan at 9% interest rate (anchor borrower’s scheme) given to the cooperative.

The university will fund the processing factory and access finance for the groundnut oil extraction equipment from BOI (Bank of Industry) at the rate of 9%. The cooperative will also seek grant from United State Africa Development Foundation(USADF). The University has relationship with commercial banks and will approach one for loan to clear the land which will be leased to members of the cooperative.

The University has a working relationship with Ekiti State Government, Ekiti State Ministry of Agric, Farmers’ Union, Agric Cooperatives and individual farmers. The university will get technical support from this relationship in the area of production through contract farming or outgrower scheme.

The university has working relationships with and linkages to industry players in the project area who will offtake products through a purchase and sale contract agreement. They include Flour Mill of Nigeria Limited, Obasanjo Farms Ltd, Animal Care, Amo Farms, Farm Support and others. The groundnut oil will be sold through cooperatives and other distribution channels. The groundnut sludge will be sold to players in the paints and cosmetics industry.

**Market and Sales**

Market orientation: domestic; South West & South East, Nigeria

Market Share: 5% niche market in South West, South East Nigeria

Users of Products: edible oil for human, groundnut cake for the livestock industry, groundnut sludge for paint and cosmetics industries in South East.

**Competition analysis**

Traditional commercial groundnut producing areas encompass the Sahel, Sudan and derived savannah, Northern Guinea and most parts of the Southern Guinea vegetation zone. The major groundnut producing states are Kano, Katsina, Kaduna, Jigawa, Sokoto, Zamfara and Kebbi in the Northwest; Adamawa, Bauchi, Yobe and Borno in the Northeast; and Benue, Plateau, Taraba, Nasarawa, FCT Abuja, Kogi, Niger and Kwara in the Central Zone. Based on this above analysis, competition in terms of production in South West, Nigeria is non- existent compared to the demand for produce.

**Tariff and Import Restriction**

Forex restriction on food importation and zero duty on imported agricultural equipment will favour the project under consideration.

**Market Potential**

There is strong demand for groundnut bean and groundnut bean derivatives in the Southern part of Nigeria. The state of infrastructure though not perfect still supports production and trade within Nigeria.

**Profitability**

Weather, biological, chemical, physical and environmental factors such as temperature, sunlight, water, air, soil conditions, varieties of seed, pests, diseases, price fluctuations and other risks e.g. cow invading the farm could affect yield and profitability. However, technical, scientific and financial based solutions will be employed to hedge against risks and safeguard profit. Irrigation option will be factored in to ensure two cycle of production in a year.

**Technical Feasibility**

The projects (production of groundnuts and groundnut oil extraction) are technically feasible. In terms of technology, which involve the crushing of groundnut and extraction of oil, the industrial processes are simple and a specialist in oil extraction with more than 20years experience is part of our team. The needed equipment for oil extraction are readily available and our experts have hand on experience in the usage and maintenance of the equipment.

On the groundnut production, we have specialists in mechanization, irrigation, farm management, crop production, weed science, market development, Agric extension and accounting as part of our management team. We also have specialists in quality control as part of our management team. The state of infrastructure around the University and generally in Ekiti is adequate and suitable for the location of the farm/firm for efficient production, processing and marketing. Raw materials will be produced and sourced locally.

The major competitors are in the North of Nigeria while we are situated in South West (Ekiti) and will enjoy a large market share of the population around us. ABUAD farms will target a market niche and penetrate through cooperative societies to make our brand popular. From our analysis, integration of production and processing will give us a competitive advantage.

We are implementing our project using best international practices, sustainable production and due consideration for the environment. Although some degree of deforestation will occur, the EIA (Environmental Impact Assessment) report shows little or no damage to the environment as it relates to the issue of climate change. Organic fertilizer will be substituted for chemical fertilizer within three years of farm operations.

**Production Challenges**

Rainfall variability and drought – This is one of the major causes of rain fed crop failure in the Sudan Savannah of Nigeria. The probability of drought is highest at the beginning and end of the growing season. Farmers sow their crops with the first rains when there is generally enough moisture for the seed to germinate and then accept the risk of having to reseed if subsequent rains are delayed. Drought stress at the beginning of the growing season severely affects plant establishment, leading to reduced yield or complete crop failure. Mid- and end-of-season drought is also common and often occurs at the critical physiological stages of pod formation and filling.

Drought also increases the probability of preharvest aflatoxin contamination (due to infection by Aspergillus flavus). Aflatoxin contamination of groundnut is a major hazard to human and animal health and is one of the major constraints to the groundnut trade. Risks related to human health and death and declining productivity in livestock after consuming aflatoxin-contaminated feed have led to groundnut importing countries setting standards that allow only extremely low levels of contamination and that are often not achievable by most resource-poor groundnut farmers. Improved, early-maturing and drought-tolerant groundnut varieties, crop diversification (cereal-legume-livestock), improved soil and water management practiced on a large scale and coupled with appropriate policies will provide the opportunities to alleviate the adverse effects of drought on productivity. Poor soil fertility: The soils of the dry savannahs where groundnut cultivation is most popular are generally sandy, poor both in terms of nutrient content and water-holding capacity, and prone to erosion by wind and water. Any situation that precludes careful soil management can therefore easily lead to soil degradation, particularly in the dry areas where droughts are frequent. With the increase in demand for agricultural products arising from the ever increasing human population, farmers are forced to crop the same piece of land year after year, without allowing for any fallow period that would

encourage soil restoration. However, rotating the staple cereal crops with a leguminous crop like groundnut also encourages livestock integration, and will alleviate the effect of continuous cropping (Fig. 1). Biotic and abiotic constraints: Groundnut rosette disease, early leaf spot (ELS), late leaf spot (LLS) and rust are the major biotic constraints responsible for low yield of groundnut in Nigeria. Groundnut rosette is one of the most destructive diseases that affect groundnut, and wiped out more than half of the groundnut cropped area Nigeria in 1975. Resistant cultivars provide the most appropriate means of controlling the diseases, especially for smallholder farmers. Therefore, development and cultivation of rosette-resistant, high yielding groundnut varieties with optimal duration is important to enhance and stabilize productivity. Constraints to input supply: A range of high-yielding varieties of groundnut and improved agronomic practices to optimize their yield potentials are available, but wide-scale dissemination is limited by lack of seed. The seed sector faces many constraints including the limited supply of breeder seed, poor seed demand estimation and lack of interest by seed companies resulting in inadequate distribution systems. In addition, farmers are poorly linked to credit and input markets which are necessary to increase productivity for crops such as groundnut.

**Groundnut Production Practices**

**Soil and Climatic Requirements:** Groundnut grows best in a well-drained sandy loam or in sandy clay loam soils. Deep, well drained soils with a pH of 6.5-7.0 and high fertility are ideal. Heavy soils are not suitable as this leads to high pod loss and difficulty of harvest. Pegging is also difficult on heavy soils; unlike sandy loam soils which facilitate pegging. The optimal soil temperature for good germination and vegetative growth is 27°C-30°C and 24°C-27°C for reproductive growth. Low temperature at the time of sowing delays germination, and increases likelihood of seed and seedling diseases and of infestation by sucking pests. An evenly distributed annual rainfall between 450 mm and 1250 mm per annum is required for good growth and yield. While groundnut can be produced in most parts of the country, in regions with over 1,000 mm rainfall the crop must be grown either in well-drained soils or on ridges. Groundnut can be produced under irrigation, and irrigated groundnut produces on average higher pod and fodder yields than groundnut in the main wet season (rain fed crop). The GNVC have started promoting dry-season groundnut cultivation in the vast irrigated lands in the country. This will boost the production of the crop in the country as well as availability of quality fodder for ruminant livestock.

**Site Selection and Land Preparation:** The ideal field for groundnut production should have soil that is well drained and light coloured with either sandy, loamy sand, or sandy loam texture. Soils that make a ribbon when moist soil is rubbed between index finger and thumb are not advisable but soils that fall apart when rubbed should be used, as produce from such soils are clean and bright. It is not advisable for groundnut to be grown repeatedly on the same field for a long period, as this may lead to build-up of soil borne groundnut diseases and nematodes. Groundnut-cereal rotation is ideal as the fertilizer applied to the cereals in previous season(s) can be effectively used by groundnut, which in turn enriches the soil with nitrogen through biological nitrogen fixation for the subsequent cereal crop, which then requires a lower dose of fertilizer. Therefore, proper crop rotation can lead to higher yields and substantial reduction in cost of disease control and fertilizer requirements. Prior to sowing, the field should be cleared of all shrubs and stubble and crop residue from the previous crop. This helps avoid fungal attack and provides a smooth ground for growth and development. Conventional tillage is encouraged for groundnut production, as this ensures higher yields than conservation tillage (no-tillage, minimum tillage, reduced tillage and strip tillage). The land should be ploughed and harrowed before making ridges to provide a good tilt for seed emergence. Groundnut may be planted on flat or on ridges, but planting on ridges produces higher yield compared to flats. In addition, ridge planting allows easy drainage of excess water, avoids compaction of seed beds and facilitates field operations such as weeding.

**Government Support and Regulation**

The project 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.

**Groundnut Value Chain:** The Federal Government of Nigeria launched the Agricultural Transformation Agenda (ATA) which is implemented through various crop commodity chains. The vision of ATA is to achieve a hunger-free Nigeria through an agricultural sector that drives income growth, accelerates achievement of food and nutritional security, generates employment, and transforms Nigeria into a leading player in global food markets to grow wealth for millions of farmers. The Growth Enhancement Support (GES) investment is targeting 20 million farmers. The ATA action plan initially focuses on priority agricultural commodities including groundnut. ICRISAT and FMARD have signed an agreement on a project titled Rebuilding the groundnut pyramids: boosting farmers’ income through new groundnut varieties, cropping systems and processing technologies, value addition in Nigeria. This project will bring all major players along the value chain together, ensure they complement each other, and also ensure that ICRISAT is a major player in the implementation of the GNVC activities. In order to enhance the performance of the groundnut sector along the value chain, groundnut productivity needs to increase. Crop management practices that significantly increase yields of grain and fodder at competitive cost will be promoted. Because of largely proven integration between input and product market, marketing strategies that link the different players will be promoted. Farmers and/or farmers’ organizations will produce for the market; they will be strengthened and organized around collective marketing in order to reduce transaction costs and increase their returns to investment.

**Project Timeline**

The project will be completed within 6months preferably between November, 2020 to April, 2021 because land clearing is mostly done in the dry season and in consideration of the recent coronavirus outbreak which stops work from starting sooner due to the Government’s social distancing measures.

**7.0 Estimated Project Costs and Revenue**

**Fixed Cost**

1. **Land Clearing**

|  |  |  |  |
| --- | --- | --- | --- |
| **Activity** | **QTY** | **₦** | **K** |
| Land Clearing | 1Hectare | 230,000 | 00 |
| Cross cutting | 1Hectare | 20,000 | 00 |
| Rome ploughing | 1Hectare | 50,000 | 00 |
| **Sub total** | 1Hectare | **300,000** | **00** |
| **Total** | 400 Hectare | **120,000,000** | **00** |

**(B) Equipment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **QTY** | **MODEL** | **USD** | **₦** | **K** |
| Tractor | 1 | YTO-904(90hp) | 24,450 | 8,802,000 | 00 |
| Disc harrow | 1 | IBJ- 3.0 | 3,520 | 1,267,200 | 00 |
| Sub soiler | 1 | IS-200G | 3,250 | 1,170,000 | 00 |
| Groundnut seeder | 1 | 2BFY-6C | 4,950 | 1,782,000 | 00 |
| Tripper | 1 | 7CX-8T | 9,450 | 3,402,000 | 00 |
| Combine Harvester | 1 | 4YZ-6 | 103,500 | 37,260,000 | 00 |
| Boom sprayer | 1 | 3W-1000L-18 | 6,950 | 2,502,000 | 00 |
| Front loader | 1 | TZ10D | 6,570 | 2,365,200 | 00 |
| **Sub total** |  |  | **159,390** | **57,380,400** | **00** |

**(C) Vehicle**

**Type Model QTY ₦ K**

|  |  |  |  |
| --- | --- | --- | --- |
| **Pick-up Truck** | **HILUX** | **2** | **30,000,000 : 00** |

1. **Irrigation**

**Type QTY Model USD ₦ K**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Hose Reel** | **1** | **140 – 440MT** | **28,186** | **1,0146,960 : 00** |

**Operating Cost**

|  |  |  |
| --- | --- | --- |
| **Working Capital** |  |  |
|  | **₦** | **K** |
| Ploughing/Ha | 15,000 | 00 |
| Harrowing/Ha | 10,000 | 00 |
| Sub total | 25,000 | 00 |
| **For 400 Ha** | **10,000,000** | **00** |
| Mechanization and storage | 105,000 | 00 |
| **For 400Ha** | **42,000,000** | **00** |
| Input / Ha | 91,825 | 00 |
| **For 400Ha** | **36,730,000** | **00** |
| Area yield insurance | 13,500 | 00 |
| Produce aggregation | 5,500 | 00 |
| Geo Spatial Service | 4,500 | 00 |
| Sub total | 23,500 | 00 |
| **For 400Ha** | **9,400,000** | **00** |
| Interest per hectare | 22,079 | 25 |
| **For 400Ha** | **8,831,700** | **00** |
| Total cost per hectare | 245,325 | 00 |
| **Total cost for 400Ha** | **98,130,000** | **00** |
| Loan principal and interest (cost per Hectare) | 267,404 | 25 |
| **Total for 400Ha** | **106,961,700** | **00** |
| **Irrigation cost for 400Ha (excluding fixed cost)** | **24,018,120** | **00** |

**Amortization**

**₦ K**

|  |  |
| --- | --- |
| **Land clearing amortization (per hectare)** | **30,000 : 00** |
| **Land clearing amortization (400hectare)** | **12,000,000 : 00** |

**REVENUE**

|  |  |
| --- | --- |
| **Yield per hectare 3tonnes@ ₦145000 per tonne** |  |
|  | **₦ K** |
| **Revenue per hectare** | **435,000 : 00** |
| **For 400Ha** | **174,000,000 : 00** |
| **Net revenue for 400Ha(without amortization)** | **67,038,300 : 00** |
| **Net revenue with amortization(400ha clearing)** | **55,038,300 : 00** |
| **2nd Production Cycle** |  |
| **Net revenue** | **43,020,180 : 00** |
| **Net revenue with amortization(400ha land)** |  |
| **Annual Net Revenue ( 1st + 2nd Cycle)** | **98,058,480 : 00** |

**Currency conversion rate:** **₦360.00 to 1USD**

**Funding Mechanism**

ABUAD will provide 400Hectares of cleared farmland around the university and lease it to members of the cooperative. ABUAD will also lease 6,000MT capacity silo as equity contribution

Equity investor to provide equity for equipment and vehicles purchase

Where possible equity investor to provide equity for working capital or otherwise secure loan at the rate of 9% through government intervention window at the Bank of Agriculture, Bank of Industry and Commercial banks.

**Conclusion**

The project is technically feasible and commercially viable. It is therefore recommended for funding as the profits and economic opportunities are too great to be missed. Thank you in advance for approving the business idea generated by YembettAgric Limited.