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COURSE TITLE: FOOD SECURITY

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ASSIGNMENT

Prepare a business plan on a chosen agricultural enterprise.

A FEASIBILITY REPORT / BUSINESS PLAN FOR THE DEVELOPMENT OF A FOUR HUNDRED HECTARES BANANA AND PLANTAIN PLANTATION AND ESTABLISHMENT OF 20 TONNES PER DAY CAPACITY PLANTAIN SUCKERS EXTRACTION AT VIVOCH LIMITED FARMS, WARRI, DELTA STATE, NIGERIA BY ECCON AGRIBUSINESS VENTURES AND CONSULTANCY CONFIDENTIALITY AGREEMENT.

Executive Summary/ Project Description

This business plan examines the feasibility of and indeed economic viability of the development of a 400hectares banana and plantain plantation and the establishment of a extraction plant in Delta state by Vivoch Nigeria Farmer's Cooperative Society Limited. The farm will produce about 1,200tonnes of plantain in a production cycle. The plantain suckers will process about 4,200tonnes of into edible plantain. There is high domestic demand for plantain because of our huge population and production constraints leading to shortage of the commodity. Production is currently popular in the Edo, Delta, across river, Ekiti, Ogun and other states in the tropics. Nigeria does not import plantain suckers instead we do hybridization.

The proposed project will create economic opportunities, impact positively on the people and help conserve scarce foreign exchange. The entire sucker to be processed will be sourced locally through direct production, contract farming in Delta State and direct purchase from smallholder farmers in other cultivation 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 Engineer Samuel Azubike owner of Eccon farms. Engineer Samuel Azubike is promoting the productivity of smallholder farmers in Ebonyi state through the Eccon Farmer's Cooperative Limited. The farm has many products and even a plantain chips industry with many years of experience in the project being proposed. Eccon Agribusiness Ventures & Consultancy 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

The industry has working relationship with IITA (International Institute of Tropical Agriculture, Ibadan) through an executed MOU. IITA has mandate in plantain production and processing and will provide technical assistance in this regard. The Industry also has a working relationship with BOA (Bank of Agriculture) and we are collaborating on Engineer Samuel Azubike Annual Agric Expo where the owner appreciate Ebonyi Farmers through monetary award to the best 3farmers in each local government area of the 13 L.G.A in Ebonyi State and the overall best farmer in the state. Bank of Agriculture has agreed to finance production of the 400hectares of plantain through a loan at 8% interest rate (anchor borrower's scheme) given to the cooperative

The industry will fund the processing factory and access finance for the plantain chips equipment from BOI (Bank of Industry) at the rate of 8% . The cooperative will also seek grant from United State Africa Development Foundation(USADF). The industry 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 Industry has a working relationship with Ebonyi State Government, Ebonyi State Ministry of Agriculture , Farmers' Union, Agriculture Cooperatives and individual farmers. The industry will get technical support from this relationship in the area of production through contract farming or outgrown scheme.

The industry has working relationships with and linkages to industry players in the project area who will off take 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 plantain chips will be sold through cooperatives and other distribution channels. The plantain will also be dried, grinned and will be sold to players in production of amala.

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, soya cake for the livestock industry, soya sludge for paint and cosmetics industries in South East.

Competition analysis

Benue State alone produced 64% of national output between1999 and 2017. Kaduna State followed with 45% of national output within the period. Taraba, Plateau, Kano, Niger and katsina produced 12% and below in the period. The seven state mentioned above produced 94% of national output within the period. The only places where significant production took place in South West, Nigeria was in Saki West L.G.A. in

Oyo State and Akure North L.G.A in Ondo State. Based on this above analysis, competition in terms of production in South West, Nigeria is non- existent Compare to the demand for produce.

Tariff and Import Restriction

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

Market Potential

There is strong demand for plantain and plantain derivatives in the Eastern 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. infected suckers could affect yield and profitability. However, technical, scientific and financial based solutions will be employed to hedge against risks and safeguard profit. Drip irrigation or tickle option will be factored in to ensure one or two cycle of production in a year.

Technical Feasibility

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

On the plantain production, we have specialists in mechanization, irrigation, farm management, crop production, weed science, market development, agricultural 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 industry and generally in Ebonyi 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 in the South West are GRAND CEREALS and JOF with the Grand Soya oil brand and Executive Chef brand. Grand Cereal has an installed capacity of 150tonnes per day in Lagos and 100tonnes per day in Jos While JOF has a capacity of 120tonnes per day in Akure, ECCON 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.

Government Support and Regulation

The project conform 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 favorable 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.

Project Timeline

The project will be completed within 6months preferably between November, 2008 to April, 2009 because land clearing is mostly done in the dry season.

Table 1: Production of some staple food crops in West and Central Africa and per capita consumption of plantain Production (1000 Tonnes)

COUNTRY	PLANTAIN	CONSUMPTION OF PLANTAIN (kg)
Ghana	1800	92
Nigeria	1700	15
Cameroon	1000	72
Gabon	300	153
Guinea	400	49

Table 2:Farm size of plantain farms in derived savannah zone Distribution (%)

Farm size	2008	2009
Farm size (stands) categories		
1-1000	56	51
1001-2000	30	32
2001-3000	10	13
3001-4000	04	04
mean	1120.6	1200.5

Table 3: Estimated Costs and Returns

Items /activities

A:fixed cost	Number owned	Cost/unit	Total cost
Knife	1	N100.00	N 100.00
Machete	5	N900.00	N 4,500.00
File	2	N 100.00	N 200.00
Hoes	3	N 1,200	N 3,600
Spade	3	N 1,700.00	N 5,100.00
Wheelbarrow	1	N9000.00	N 9000.00
farm house	0	0	0
rent (land)	3	N 500.00	N 1,500.00
Canoes	1	N15,000.00	N15,000.00
Paddle	4	N 400.00	N 1,600.00
Rope	1	N 100.00	N 100.00
Bag	6	N 30.00	N 180.00
Tape	1	N200.00	N 200.00
			N 41,080.00

Table 4: Farm characteristics of plantain farms in derived savannah zone.

Characteristics	Distribution (%) in 2009
Land acquisition	
Purchase	40
Leasehold	30
Inheritance/Gift	30
Spacing adopted 2.0-2.9	
3.0-3.9	02
4.0-4.9	72
5.0-5.9	24
Mean 3.1	02
Varieties grown	
Traditional Plantain	17.1
Koloko	11.1
Asogba	21.1
Akunlebe	12.7
Ayesomeji	23.5
Hybrid	14.2
No of plants per stand	
2-3	27.3
4-5	61.6
6-7	11.1
Mean	3.2
Soil conservation practices adopted	
Mixed cropping	32.8
Fertilizer	53.4
Manuring	6.9
Bush Fallowing	6.9
Agricultural system practiced	
Sole cropping	39.0
Inter cropping	61.0

Field survey (2009)

Table 5:Average costs and returns (N) to plantain farmers in derived savannah zone for 2008/2009 cropping season

Item	Mean amount (N)	Percentage of revenue/cost
Revenue		
Revenue From Plantain	112,354.40	91.4
Revenue From Suckers	10,450.46	8.5
Total Revenue (TR)		

Item	Mean amount (N)	Percentage of revenue/cost
Variable costs	122,804.86	1.8
Rent On Land	1,005.22	60.3
Cost Of Labour	34,407.63	26.4
Consumable Farm Inputs	15,026.72	9.3
Transport Cost	5,322.98	97.8
Total Variable Costs (TVC)	55,762.55	
Gross margin (GM) = TR-TVC	67,042.31	
Fixed cost		
Depreciation on tools	1,260.64	2.2
Total Fixed Cost (TFC)	1,260.64	2.2
Total costs (TC) = (TFC+TVC)	57,023.19	
Net Income (NI) = (GM-TFC)	65,781.67	
Profit Margin (%) = NI/TR		53.6
Return Per Naira Outlay (N) NI/TC		1.3
Operating Expense Ratio (%) = TVC/TR		45.4
Benefit Cost Ratio (BCR) = TR/TC		2.2
Labour Efficiency = TR/Labour Cost		3.6

Field survey (2009)

Funding Mechanism

ECCON will provide 400Ha of cleared farmland around the industry and lease it to members of the cooperative. ECCON 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 8% 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.