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COURSE TITLE –

FOOD PRODUCTION AND HEALTH AWARENESS

PROJECT TITLE

**A FEASIBILITY REPORT / BUSINESS PLAN FOR THE
DEVELOPMENT OF A THREE HUNDRED HECTARES MAIZE
PLANTATION AND ESTABLISHMENT OF 400 TONNES PER DAY
CAPACITY CORN KERNEL EXTRACTION PLANT AT AFE
BABALOLA UNIVERSITY FARM, ADO EKITI, EKITI STATE,
NIGERIA BY RAHIB AGRIBUSINESS VENTURES AND
CONSULTANCY CONFIDENTIALITY AGREEMENT**

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1.0 EXECUTIVE SUMMARY / BRIEF DESCRIPTION OF THE PROJECT

This business plan examines the feasibility of and indeed economic viability of the development of a 400 hectares maize plantation and the establishment of a corn kernel extraction plant in Ado – Ekiti by Afe Babalola University and Afe Babalola Farmer's Cooperative Society Limited. The farm will produce about 8,000 tonnes of maize for direct consumption in a production cycle. The corn kernel extraction plant will process about 12,000 tonnes of maize into corn ethanol as biofuel, livestock feed, and other maize products, such as corn starch/ corn syrup as sweetener in soft drinks and candies; stalk into paper and wallboard; husks as filing material; corn cobs for fuel, to make charcoal and in preparation of industrial solvents. There is high domestic demand for these products because of our huge population and production constraints leading to shortage of commodity. Production is currently popular in Niger, Taraba, Kaduna, Adamawa and Plateau states. Nigeria imports significant quantity of maize and its derivatives to augment domestic shortages.

The proposed project will create economic opportunities, impact positively on the people and help conserve scarce foreign exchange. The entire maize 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.

2.0 SPONSORSHIP, MANAGEMENT AND TECHNICAL ASSISTANCE

2.1 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. RAHIB Agribusiness Ventures and Consultancy will be responsible for the management consultancy of the projects.

2.2MANAGEMENT

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 members 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 coordination 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.

2.3TECHNICAL ASSISTANCE

The university has working relationship with IITA (International Institute of Tropical Agriculture, Ibadan) through an executed MOU. IITA has mandate in maize production and processing and will provide technical assistance in this regard. The university also has a working relationship with the Bank of Agriculture (BOA) and we are collaborating on Aare Afe Babalola Annual Agric Expo where the founder appreciates Ekiti farmers through monetary award to the best 3 farmers 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 300 hectares of maize 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 maize extraction equipment from Bank of Industry (BOI) 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, Animal Care, Amo Farms, and others. The maize will be sold through cooperatives and other distribution channels.

3.0 MARKET AND SALES

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

Market Share: 10% niche market in South West & South East, Nigeria

Users of Products: edible maize for humans; corn kernels for a variety of industries; shuck/husk for livestock industry; corn ethanol, corn starch, corn syrup and corn cobs for industries.

3.1 COMPETITION ANALYSIS

Kaduna state alone produced 16% of national output between 2008 and 2012 with production of over 200,000 tons. Katsina state followed with 9%, Niger and Borno state with 7% and Plateau and Taraba with 6% within the period. The only places where significant production took place in South West and South East, Nigeria was in Ekiti, Osun, Ondo and Lagos State with 2% of national output with production of less than 100,000 tons. Based on this above analysis, competition in terms of production in South West and South East, Nigeria is non-existent compared to the demand for produce.

3.2TARIFF AND IMPORT RESTRICTION

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

3.3MARKET POTENTIAL

There is strong demand for maize and maize derivatives in every part of Nigeria. The state of infrastructure though not perfect still supports production and trade within Nigeria.

3.4PROFITABILITY

Weather, biological, chemical, physical, 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.

4.0TECHNICAL FEASIBILITY, RESOURCES AND ENVIRONMENT

The projects (production of maize and corn kernels extraction) are technically feasible. In terms of technology, which involve the removing of corn kernels from the cob, fermentation to corn starch / corn syrup and separation into other derivatives, the industrial processes are simple and a specialist in kernel extraction with more than 20 year experience is part of our team. The needed equipment for kernel extraction are readily available and our experts have hand on experience in the usage and maintenance of the equipment.

On the maize 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. 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.

5.0 GOVERNMENT SUPPORT AND REGULATION

The project conforms to the economic diversification objective of the government. It also supports foreign exchange and import reduction conservation of government. It creates economic opportunities, market access, and improved income for farmers and support food security objective of government. The project will benefit from government intervention fund in 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.

6.0 TIMELINE OF PROJECT

The project will be completed within 3-4 months. The first planting season is usually between February and April depending on whether rainfall is normal or delayed and the second planting season is usually between August and October.

7.0 ESTIMATED PROJECT COST AND REVENUE

=> FIXED COST

(A) Land Clearing

Activity	QTY	₦	K
Land clearing	1 hectare	230,000	00
Cross cutting	1 hectare	20,000	00
Rome ploughing	1 hectare	50,000	00
Subtotal	1 hectare	300,000	00
Total	400 hectares	120,000,000	00

(B) Equipment

Name	QTY	Model	USD	₦	K
Tractor	1	YTO-904(90hp)	22,000	7,931,000	00
Disc harrow	1	IBJ-3.0	3,500	1,261,750	00
Sub soiler	1	IS-200G	3,000	1,081,500	00
Tripper	1	7CX-8T	9,000	3,244,500	00
Combine harvester	1	4YZ-6	103,000	37,131,500	00

Boom sprayer	1	3W-1000L-18	6,500	2,343,250	00
Front loader	1	TZ10D	6,500	2,343,250	00
Sub total	1		153,500	55,336,750	00

(C) Vehicle

Type	QTY	Model	₦	K
Pickup Truck	2	HILUX	31,298,610	00

(D) Irrigation

Type	QTY	Model	USD	₦	K
Hose Reel	1	140-440MT	28,172	10,156,006	00

=> OPERATING COST

Working Capital	₦	K
Ploughing / Ha	20,000	00
Harrowing / Ha	15,000	00
Subtotal / Ha	35,000	00
For 400Ha		00

	14,000,000	
Mechanization and storage / Ha	100,000	00
For 400Ha	40,000,000	00
Input / Ha	94,250	00
For 400Ha	37,700,000	00
Area yield insurance	15,000	00
Produce aggregation	6,000	00
Geo Spatial service	5,500	00
Subtotal / Ha	26,500	00
For 400Ha	10,600,000	00
Interest / Ha	23,017	50
For 400Ha	9,207,000	00
Total cost / Ha	255,750	00

Total cost for 400Ha	102,300,000	00
Loan principal and interest / Ha	278,767	50
For 400Ha	111,507,000	00
Irrigation cost for 400Ha (excluding fixed cost)	2,314,300	00

Amortization	₦	K
Land clearing amortization (per hectare)	30,000	00
Land clearing amortization (400 hectare)	12,000,000	00

7.1 REVENUE

Yield per hectare 3 tonnes @ ₦145,000 per tonne	₦	K
Revenue per hectare	435,000	00

For 400Ha	174,000,000	00
1st Production Cycle		
Net revenue for 400Ha (without amortization)	62,493,000	00
Net revenue with amortization(400Ha clearing)	50,493,000	00
2nd Production Cycle		
Net revenue	60,178,700	00
Net revenue with amortization(400Ha clearing)		
Annual Net Revenue (1st + 2nd cycle)	110,671,700	00

Currency conversion rate: ₦360.50 to 1 USD

8.0 FUNDING MECHANISM

ABUAD will provide 300Ha of cleared farmland around the university and lease into members of the cooperative. ABUAD will also lease 10,000MT capacity silo as equity contribution and an equity investor to provide equity for equipment and vehicle

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.

9.0 CONCLUSION

The project is technically feasible and commercially viable. It is therefore recommended for funding.