

PROJECT PROFILES



PRODUCTS DERIVED
FROM
SOYA BEANS

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SOY MILK

INTRODUCTION

This project focuses on producing soy milk, a nutritious and lactose-free alternative to cow's milk. The small-scale soy milk production facility will use locally sourced soybeans to create a healthy beverage option for the community. The product will cater to individuals with lactose intolerance, vegans, and health-conscious consumers in Katsina State and beyond.

MARKETING POTENTIAL

The demand for soy milk is steadily increasing in Nigeria due to growing health awareness and dietary preferences. In Katsina and neighboring states, consumers are becoming more open to plant-based milk alternatives for health and lifestyle reasons. Soy milk's affordability compared to traditional dairy products makes it attractive to a broad market segment, including schools, retail shops, and individual households. The potential for partnerships with local retailers and supply to small supermarkets enhances market reach.

BASIS & PRESUMPTIONS

- Local soybean sourcing reduces raw material costs.
- Production is set at 500 liters of soy milk per day, operating 20 days per month.
- Semi-automated machinery ensures efficient and scalable production.
- Packaging in 500 ml bottles at a price of 650 NGN per bottle.

IMPLEMENTATION SCHEDULE

Milestone	Duration (Weeks)
Business registration	2
Regulatory approvals	3
Procurement of equipment	6
Setup of production facility	4
Recruitment and training	3
Production trials	2
Market Launch	1

SOY MILK

MANUFACTURING PROCESS

The soy milk production process begins with the cleaning and soaking of soybeans overnight to soften them. After soaking, the beans are blended with water at a ratio of 1:3 (1 kg of soybeans to 3 liters of water). The resulting mixture is strained to separate the soy milk from the solid residue (okara). The extracted milk is then heated to a simmer to remove the beany flavor and ensure pasteurization, adding sugar and flavoring as needed. The milk is cooled and bottled using sterilized 500 ml PET bottles with caps. These bottles are then labeled and stored in refrigeration to maintain freshness before distribution. Each batch of 100 liters uses approximately 30 kg of soybeans.

PRODUCTION CAPACITY

Annual Quantity	120,000 Liters
Value	156,000,000.00 NGN (based on 1,300 NGN per liter as selling price)

FINANCIAL ASPECTS

Fixed Capital

Item Description	Cost (NGN)
Facility (rental/setup)	3,000,000.00
Soybean grinder/blender	1,900,000.00
Straining and pressing equipment	2,500,000.00
Pasteurization unit	3,000,000.00
Bottling and capping machine	2,500,000.00
Refrigeration unit	2,500,000.00
Packaging and labeling machine	1,500,000.00
Miscellaneous tools	800,000.00
Total Fixed Capital	17,700,000.00

SOY MILK

Workers' Salaries

Position (w/ population)	Monthly Cost (NGN)
Manager (1)	300,000.00
Accountant (1)	250,000.00
Supervisor (1)	150,000.00
Machine Operators (2)	200,000.00
Quality Control Staff (2)	240,000.00
Unskilled Worker (2)	140,000.00
Engineer (1)	200,000.00
Security Guard (1)	70,000.00
Total Salaries (per month)	1,550,000.00

Raw Materials (per month)

Material	Rate (NGN)	Total Cost (NGN)
Soya beans (3,000 kg)	820.00	2,460,000.00
Sugar & Flavouring	350,000.00	350,000.00
Packaging (Bottles and Labels) (20,000 500ml bottles)	120.00	2,400,000.00
Total Raw Materials		5,210,000.00

SOY MILK

Utilities (per month)

Utility	Rate (NGN)	Cost (NGN)
Electricity (1500kWh)	210.00	315,000.00
Diesel (1200L)	1,200.00	1,440,000.00
Total Utilities		1,755,000.00

Other Expenses (per month)

Expense	Cost (NGN)
Marketing and distribution	150,000.00
Maintenance	150,000.00
Miscellaneous	50,000.00
Total Other Expenses	350,000.00

Total Recurring Expenses

Expense	Cost (NGN)
Workers' Salaries	1,550,000.00
Raw Materials	5,210,000.00
Utilities	1,755,000.00
Other Expenses	350,000.00
Total (per month)	8,865,000.00
Total (per annum)	106,380,000.00

SOY MILK

Revenue

Item	Quantity	Rate (NGN)	Cost (NGN)
500ml Soy Milk	240,000 units	650.00	156,000,000.00

Net Profit (before tax)

Total Recurrent Expenses	106,380,000.00 NGN
Revenue	156,000,000.00 NGN
Net Profit	49,620,000.00 NGN

CONCLUSION

The soy milk production project represents a profitable small-scale business that addresses the growing demand for plant-based and nutritious alternatives to traditional dairy products. Soy milk is lactose-free, affordable, and rich in protein, vitamins, and minerals, making it an ideal choice for health-conscious consumers and those with dietary restrictions. With increasing awareness of healthy eating and lifestyle changes in Katsina State and neighboring regions, this project is well-positioned to capitalize on the rising popularity of soy-based products.

The production process, which utilizes locally sourced soybeans, ensures cost efficiency and supports local agriculture, contributing to the economic development of the region. With robust packaging and consistent quality control, the product appeals to a broad customer base, including households, schools, cafes, and supermarkets. Additionally, the business fosters job creation and supports the value chain by sourcing raw materials from local farmers.

TOFU

INTRODUCTION

This project involves producing tofu, a protein-rich, versatile food product made from soybeans. The production of tofu provides a nutritious, plant-based protein source suitable for vegetarians, vegans, and health-conscious individuals. The business will capitalize on the abundant supply of soybeans in Katsina State to deliver fresh, high-quality tofu.

MARKET POTENTIAL

The demand for plant-based protein sources is growing as more people shift towards healthier eating habits and plant-based diets. Tofu, a well known delicacy in Katsina and neighboring states, known by its local name “Awara”, is not only seen as a dietary staple for vegetarians but also among mainstream consumers looking for nutritious food options. Local markets, restaurants, and food vendors present potential distribution channel.

BASIS & PRESUMPTIONS

- Daily tofu production of 200 kg, operating 20 days per month.
- Locally sourced soybeans for cost-effective raw material procurement.
- Semi-automated production process to optimize labor and production speed.

IMPLEMENTATION SCHEDULE

Milestone	Duration (Weeks)
Business registration	2
Regulatory approvals	3
Procurement of equipment	3
Setup of production facility	3
Procurement of raw materials	2
Recruitment and training	3
Production trials	2
Market Launch	1

TOFU

MANUFACTURING PROCESS

The tofu manufacturing process starts with cleaning and soaking soybeans overnight to hydrate them. The soaked beans are then ground with water at a ratio of 1:2. The resulting soy slurry is boiled and filtered to extract soy milk. The leftover pulp (okara) is removed. The soy milk is then coagulated using a natural coagulant such as calcium sulfate or lemon juice. The curdled soy milk is gently stirred and left to separate, forming curds. The curds are scooped into molds lined with cheesecloth and pressed to remove excess water. Once set, the tofu blocks are cut into standard portions, packaged in vacuum-sealed containers, and refrigerated for distribution.

PRODUCTION CAPACITY

Annual Quantity	48,000 kg
Value	96,000,000.00 NGN (based on 2,000 NGN per kg as selling price)

FINANCIAL ASPECTS

Fixed Capital

Item Description	Cost (NGN)
Facility (rental/setup)	2,000,000.00
Soy grinder	1,500,000.00
Boiler	2,500,000.00
Coagulation and pressing unit	1,500,000.00
Cutting and packaging equipment	1,000,000.00
Refrigeration unit	2,000,000.00
Storage racks	500,000.00
Total Fixed Capital	11,000,000.00

TOFU

Workers' Salaries

Position (w/ population)	Monthly Cost (NGN)
Machine Operators (2)	170,000.00
Quality Control Staff (1)	90,000.00
Packaging Staff (2)	140,000.00
Security Guard (1)	70,000.00
Total Salaries (per month)	570,000.00

Raw Materials (per month)

Material	Rate (NGN)	Total Cost (NGN)
Soya beans (2,000 kg)	820.00	1,640,000.00
Coagulant (Calcium Sulphate) (75kg)	1,000.00	75,000.00
Packaging	150,000.00	150,000.00
Total Raw Materials		1,865,000.00

Utilities (per month)

Utility	Rate (NGN)	Cost (NGN)
Electricity (1500kWh)	85.00	127,500.00
Diesel (200L)	1,200.00	240,000.00
Total Utilities		367,500.00

TOFU

Other Expenses (per month)

Expense	Cost (NGN)
Marketing and distribution	100,000.00
Maintenance	50,000.00
Miscellaneous	50,000.00
Total Other Expenses	200,000.00

Total Recurring Expenses

Expense	Cost (NGN)
Workers' Salaries	570,000.00
Raw Materials	1,865,000.00
Utilities	367,500.00
Other Expenses	200,000.00
Total (per month)	3,002,500.00
Total (per annum)	36,030,000.00

Revenue

Item	Quantity	Rate (NGN)	Cost (NGN)
Tofu	48,000 kg	2,000.00	96,000,000.00

Net Profit (before tax)

Total Recurrent Expenses	36,030,000.00 NGN
Revenue	96,000,000.00 NGN
Net Profit	59,970,000.00 NGN

TOFU

CONCLUSION

The tofu manufacturing project provides an excellent opportunity to meet the growing demand for plant-based protein products in Katsina State and beyond. Tofu is a highly versatile and nutritious food product, valued for its protein content, affordability, and adaptability to various recipes. This project aligns with the increasing preference for healthy, vegetarian, and vegan-friendly diets among health-conscious consumers and households.

By utilizing locally sourced soybeans and semi-automated production techniques, the project ensures cost-effective operations while maintaining high-quality standards. The scalability of tofu production allows the business to cater to diverse customer segments, including households, restaurants, and food vendors. Additionally, the business supports local farmers and creates jobs across production, quality control, and packaging, contributing to the region's economic development.

SOYA OIL & SOYBEAN MEAL

INTRODUCTION

The medium-scale soya oil extraction and refining plant is focused on producing refined soy oil, a widely used cooking oil with numerous health benefits, including being rich in polyunsaturated fats and essential fatty acids. The project leverages local soybean availability in Katsina State to create a reliable source of high-quality, refined soy oil. This business will meet the demand from households, restaurants, and food manufacturers, ensuring consistent supply at competitive prices while supporting local farmers and contributing to the agricultural value chain in the region.

MARKETING POTENTIAL

Soya oil is a popular cooking oil in Nigeria, valued for its affordability, health benefits, and versatility. The demand for refined soy oil in Katsina and surrounding regions is high, driven by households, food vendors, and the restaurant industry. With growing consumer awareness of healthy oils and the need for affordable cooking solutions, refined soy oil holds significant market potential. The project aims to supply to local markets and expand to regional distributors to meet the consistent demand for quality cooking oil.

BASIS & PRESUMPTIONS

- Production capacity set at 20,000 liters of refined oil in 20 days per month.
- Steady supply of locally grown soybeans to minimize raw material costs.
- Automated extraction and refining machinery to maintain product consistency.
- High-quality packaging in 2-liter and 4-liter bottles to cater to varying consumer needs.

IMPLEMENTATION SCHEDULE

Milestone	Duration (Weeks)
Business registration	2
Regulatory approvals	3
Procurement of equipment	6
Setup of production facility	4
Recruitment and training	3
Production trials	2
Market Launch	1

SOYA OIL & SOYBEAN MEAL

MANUFACTURING PROCESS

The process begins with sourcing soybeans, which are cleaned to remove impurities. The cleaned soybeans are dehulled and cracked to expose the oil-rich kernel. The prepared kernels are subjected to mechanical pressing or solvent extraction to extract crude soy oil. The extracted oil undergoes degumming, which involves the addition of water and heating to separate gums. The oil is then neutralized by adding a small amount of alkali solution to remove free fatty acids, followed by bleaching to remove color pigments using activated clay. The final refining step is deodorization, where the oil is heated under vacuum to eliminate unwanted odors and flavors. Once refined, the oil is filtered, cooled, and transferred to bottling stations for packaging in 2-liter and 4-liter PET bottles. The byproduct, soybean meal, is collected and can be sold as animal feed, adding an additional revenue stream.

PRODUCTION CAPACITY

Annual Quantity	240,000 Liters of Soya Oil
Value	960,000,000.00 NGN (based on 4,000 NGN per liter as selling price)

FINANCIAL ASPECTS

Fixed Capital

Item Description	Cost (NGN)
Facility (rental/setup)	10,000,000.00
Soybean cleaning and dehulling machine	8,000,000.00
Oil extraction press	20,000,000.00
Refining and filtering unit	15,000,000.00
Bottling and labeling machine	10,000,000.00
Storage tanks for oil	5,000,000.00
Packaging equipment	3,000,000.00
Miscellaneous tools	2,000,000.00

SOYA OIL & SOYBEAN MEAL

80kVA diesel generator	18,000,000.00
Total Fixed Capital	91,000,000.00

Workers' Salaries

Position (w/ population)	Monthly Cost (NGN)
Manager (1)	300,000.00
Accountant (1)	250,000.00
Supervisor (1)	150,000.00
Machine Operators (3)	300,000.00
Quality Control Staff (2)	240,000.00
Unskilled Worker (3)	210,000.00
Engineer (2)	400,000.00
Security Guard (2)	140,000.00
Total Salaries (per month)	1,850,000.00

Raw Materials (per month)

Material	Rate (NGN)	Total Cost (NGN)
Soyabeans (72,000kg)	820.00	59,040,000.00
Packaging materials	3,000,000.00	3,000,000.00
Additives and Chemicals	800,000.00	800,000.00
Total Raw Materials		62,840,000.00

SOYA OIL & SOYBEAN MEAL

Utilities (per month)

Utility	Rate (NGN)	Cost (NGN)
Electricity (2500kWh)	210.00	525,000.00
Diesel (1800L)	1,200.00	2,160,000.00
Total Utilities		2,685,000.00

Other Expenses (per month)

Expense	Cost (NGN)
Marketing and distribution	500,000.00
Maintenance	250,000.00
Miscellaneous	350,000.00
Total Other Expenses	1,050,000.00

Total Recurrent Expenses

Expense	Cost (NGN)
Workers' Salaries	1,850,000.00
Raw Materials	62,840,000.00
Utilities	2,685,000.00
Other Expenses	1,050,000.00
Total (per month)	68,425,000.00
Total (per annum)	821,100,000.00

SOYA OIL & SOYBEAN MEAL

Revenue

Item	Quantity	Rate (NGN)	Cost (NGN)
Soya Oil (5L)	48,000 Units	20,000.00	960,000,000.00
Soybean Meal	656,000kg	850.00	557,600,000.00
Total Revenue			1,517,600,000.00

Net Profit (before tax)

Total Recurrent Expenses	821,100,000.00 NGN
Revenue	1,517,600,000.00 NGN
Net Profit	696,500,000.00 NGN

CONCLUSION

The soya oil and seed cake production project is a high-return medium-scale business that meets the increasing demand for edible oils and livestock feed in Nigeria. Soya oil, with its nutritional benefits and affordability, is a household staple and an essential ingredient in the food processing industry. The seed cake, a valuable by-product, serves as a protein-rich feed for livestock, providing an additional revenue stream and contributing to agricultural productivity.

By leveraging modern processing techniques, this project ensures the production of high-quality soya oil and seed cake that meets industry standards. With Katsina State's abundant supply of soybeans, the project benefits from a reliable and cost-effective source of raw materials. The business also creates employment opportunities and supports local farmers, fostering economic growth and strengthening the agro-industrial value chain.