

Institute Name: Nigerian Institute for Oil Palm  
Research (NIFOR)

Project Title: Pilot Scale Production and Packaging of  
Oil Palm Fruit Mesocarp Juice (Banga Sauce )in flexible  
Aluminium Pouches

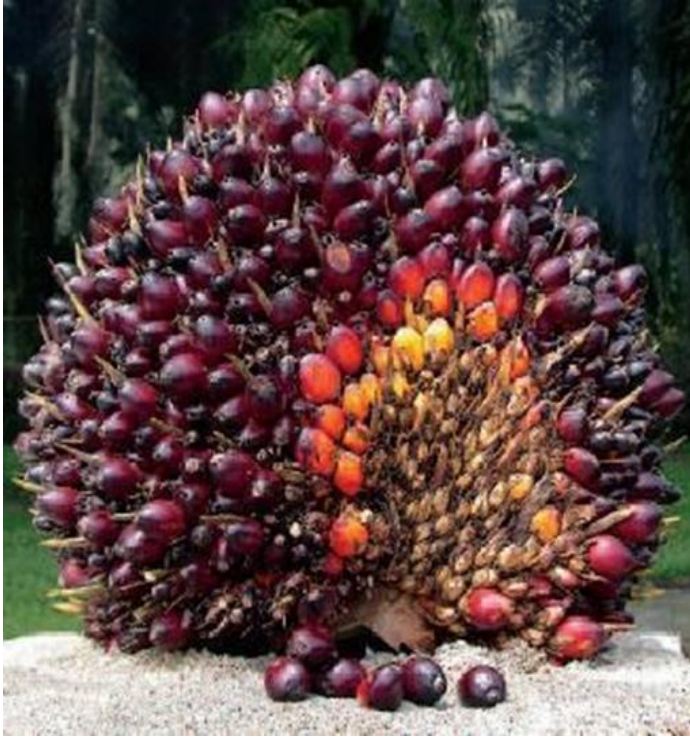
Sub-Title: Scalable Nigeria Food Innovation

By

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*Oil Palm fruit used in the production of Banga Sauce Authentic proud product of Nigeria. Needs large scale commercialization.*

## Problem Statement

- There is increasing demand for convenient, ready-to-use traditional foods in Nigeria and African diaspora.
- Home preparation of Banga soup is time-consuming and inconsistent.
- Non availability of hygienically packaged Banga Sauce in Nigeria market. Limited quantities in some supermarket in Nigeria that are not made in Nigeria Banga sauce (As at today there is no made in Nigeria Banga Sauce).

- Urbanization & changing lifestyles reduce home-cooking time.
- Lack of well-packaged, hygienic, ready-to-use Banga products.
- Poor shelf life of local alternatives; lack of standardization.

## Solution to Problem Statement

Large-scale production of ready-to-use, hygienically packaged Banga Sauce in Nigeria.

The quality of packaged Banga Sauce should be consistent with long shelf-life and convenient packaging sizes.

Scalable production with modern food processing standards.  
Commercial production of hygienic, shelf-stable Banga Sauce.

Packaged for convenience: pouches, cans.

High-quality, standardized taste.

Targeting local, urban & diaspora markets.

## Business Model used in marketing Banga Sauce

There will be Revenue from wholesaler to distributors, supermarkets, restaurants, and export.

Pricing strategy: competitive between locally produced banga sauce vs imported Banga sauces.

NIFOR will Partner with logistics and e-commerce company like Jumia, Amazon, e-bay. Which they are currently doing in other crops. Market Opportunity

Over 200 million consumers in Nigeria.



Diaspora markets in UK, US, Canada, Europe.

Growth in convenience foods & traditional taste revival.

Rising interest in export-grade African food products

## Production Process of Banga sauce

Raw material sourcing will be from Nigeria Institute for Oil Palm Research (NIFOR).

Production line: Collection of palm fruits → Sterilization → Digestion → Extraction → Clarification → Packaging → Pasteurization → Cooling

Quality control: NIFOR food laboratory in collaboration with NAFDAC and SON. In compliance with ISO standard.

## Equipment

- Stainless steel mesocarp juice extraction

## Equipment

- Fruit cleaner
- Fruit washer
- Fruit sterilizer
- Digester Screw press
- Stainless steel storage tanks
- Palm oil storage tank
- Banga sauce storage tank
- Packaging containers and label

## Competitive Advantage

- Banga sauce packaged with no additives, no preservatives authentic traditional taste with modern packaging.
- Hygienically packaged and certified production process.
- Scalability for export markets.
- Strong ties with NIFOR for sustainable sourcing.

Financial Projection in the next 5 Years

Start-up capital required: ₦205,000,000 million.

Year 1:Stainless steel mesocarp juice extraction Equipment

- Fruit cleaner
- Fruit washer
- Fruit sterilizer
- Digester Screw press
- Stainless steel storage tanks
- Palm oil storage tank
- Banga sauce storage tank

Total cost of fabrication.....N70,000,000.00

Product packaging.

-Palm Oil Packaging System.....	N15,000,000
Packaging containers and label for palm oil	
-2liters containers 100,000units at N700.....	N70,000,000
Packaging containers for Banga sauce	
-10 tonnes of Banga Sauce = 100,000 containers	
100,000 @ N500 per container =	N50,000,000
-Retortable pouches 100,000units	
-Retortable Aluminium Cans 100,000 units	
-Can seamer 3units at N3,000,000 per unit.....	N9,000,000
-Pasteurizer 2,000 litres.....	N15,000,000
-Pouch sealer 2 units.....	N2,000,000
-Shrink plastic.....	N24,000,000
Total.....	N255,000,000

Building, vehicles and Motorcycle = N50,000,000

Total fixed capital = N281,000,000 This is incurred before revenue starts

Assuming a monthly target of N100,000,000

Tonnage of Banga sauce = 10 tonnes

Fresh fruit bunches = 40 tonnes

Palm oil = 2.6 tonnes = 2600kg = 2,925 Litres

2L containers = N1,462 containers at N5,500: N1,462 containers = N8,043,750

Banga sauce = 10 tonnes = N10,000kg = N10,000,000g

Packaging size = 500g

10 tonnes of Banga sauce = 20,000 containers

Each container should be N5,625

At 20% discount 500g = N4,500

Total revenue for 10 tonnes Banga sauce = N90,000,000

Revenue per month = N8,043,750 + 90,000,000 = N98,043,750

S/N	Participant	Discipline	Institution	Role
1.	Dr(Mrs) O. B. Imoisi	Food Chemist	NIFOR	Principal investigator
2.	Dr. I. O. Bakare	Analytical Chemist	RRIN	Co- investigator
3.	Mr Asiriuwa U. Nathaniel	Biochemist	NIFOR	Co-investigator
4.	Dr. Peter Ebabhamiegbho	Food Scientist	UNIBEN	Project Manager
5.	Dr. B.O.Abikoye	Engineer	University of Cape Town, South African NIFOR	Engineering design and fabrication.
6.	Dr.E.Ataga	Engineer		
7.	Dr. N. Chidi	Microbiologist	NIFOR	Quality control
8.	Dr.Lucky Igene	Extensionist	NIFOR	Outreach/Communications



## Impact of this project

There will be Job creation for farmers, factory workers and distributors.

It will Promote Nigeria cuisine globally.

It will lead to Import substitution & export diversification.

## Conclusion

This project introduces a transformative, scalable, and sustainable agro-industrial model that redefines the commercialization of oil palm mesocarp juice (Banga sauce). By leveraging locally fabricated equipment, modern pouch packaging. The initiative will empower rural communities, reduce Nigeria's dependence on imports, and strengthen the country's presence in global agro-food markets. The project delivers clear benefits in terms of economic diversification, job creation and food security.