Food Security Challenges in Nigeria

Current Situation

> ⚠️ **Severe Food Insecurity**
>
> Approximately 30.6 million people facing severe food insecurity

> 📈 **High Food Inflation**
>
> 2024 peak reached approximately 40%
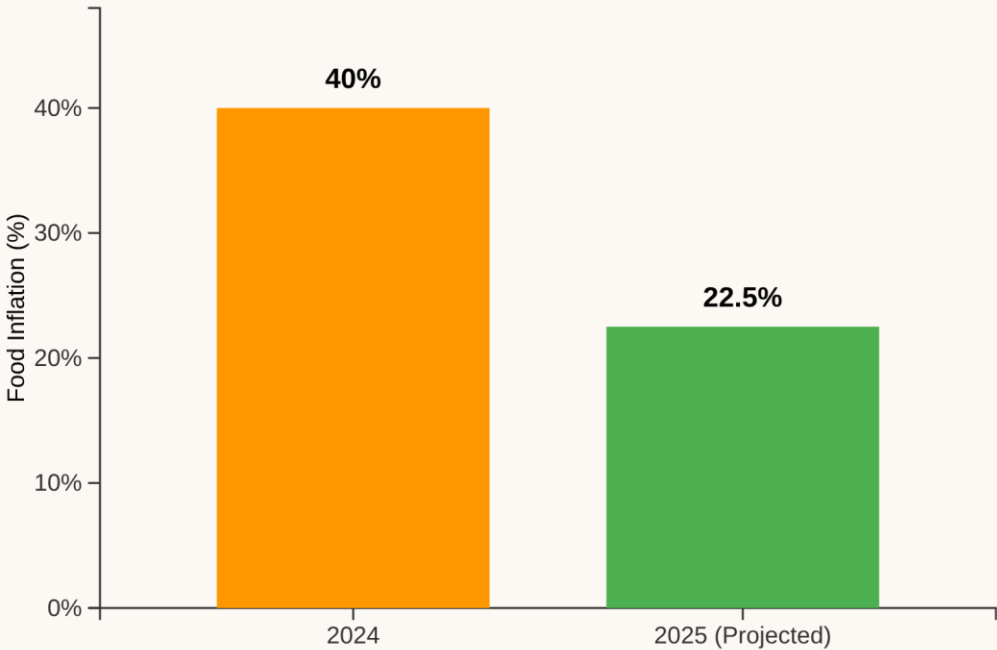> 2025 mid-year expected at 22-23%

Main Drivers

💵 High inflation	🌧️ Climate shocks
🛡️ Security issues	🚚 Weak supply chains

Food Inflation Trend

40%

22.5%

Food Inflation (%)

2024   2025 (Projected)

Food price inflation in Nigeria has reached critical levels, affecting both producers and consumers

Thank you for your attention

Supply Chain Price Inflation Issues

The Problem

Despite low production costs, farmers only receive a small portion of the final price paid by consumers.

Consumers pay 2-3 times the farm-gate price

How Prices Increase Through the Supply Chain

Farmer
Low production cost

→

Middleman 1
+50% markup

→

Middleman 2
+50% markup

→

Transport
+50% markup

→

Consumer
Pays high price

Multiple Middlemen Markups
Multiple middlemen between farmers and consumers,

High Transportation Costs
Fuel subsidy removal, roadblocks, and informal checkpoints

Post-Harvest Losses
Delays and poor logistics lead to spoilage and higher prices

The Agro-USSD Solution

Agro-USSD Platform

A **low-cost, accessible USSD platform** enabling direct transactions between farmers and buyers without internet access.

Farmers

*XXXX#

Buyers

List Products
Price, quantity, location

⇄ Direct Connection
No middlemen, no internet required

🔍 Discover Products
Search by product/location

Fair Pricing
Eliminates middleman markup

No Internet Needed
Works on basic phones

Simple to Use
Accessible to all users

Key Features & Functionality

Agro-USSD platform provides innovative features to connect farmers with buyers efficiently

Multi-language Support

Supports English, Yoruba, Igbo, Hausa, Pidgin, with plans to add more local dialects to accommodate diverse user needs.
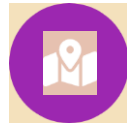
Farmer PIN Protection

Secure PIN code protects farmers' personal and business information, enabling them to update and track transactions.

NIN Verification

Verifies user identity through National Identity Number (NIN), reducing fraud and connecting with national registration systems.

Farm Profiles

Records farm size (hectares), GPS/landmark, production calendar, and product types to create comprehensive farm databases.
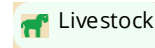
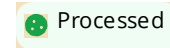## Support for Multiple Product Categories

Covers a wide range of agricultural products including crops, livestock, and processed foods.

🌱 Crops   🐃 Livestock   🔘 Processed

Platform Benefits

✅ Direct connection between farmers and buyers   ✅ Reduced middleman exploitation   ✅ Lower transaction costs   ✅ Improved transparency

User Journey Simulation

Dial*882#
Access Agro-USSD platform

Farmer Journey

1. Select **Language**
2. Choose **"New or Existing Farmer"**
3. Register/ login
4. Create **PIN** for security
5. Input **farm size** and **location**
6. Provide **farm details** (GPS, products)
7. List **agricultural products** for sale

Buyer Journey

1. Select **Language**
2. Choose **"New or Existing Buyer"**
3. Search for **Produce**
4. Filter by **location**, product type, or price
5. View **available products** and details
6. Place **order** and arrange delivery

Additional: Escrow services and logistics coordination

Dial *882# → Register/Login → Create Profile → Transact

Farmer Persona

Name: Ibrahim Adewale

Age: 45

Location: Ogun State

Occupation: Farmer

Family: Married with 4 children

Background

Ibrahim has been farming for over 20 years, cultivating cassava, maize, and vegetables on his 5-hectare farm in Ogun State. He inherited the land from his father and has expanded his operation over time.

Challenges

- Difficulty finding reliable buyers for his harvest
- Often forced to sell to middlemen at below-market prices
- Limited access to market information and price trends
- Poor internet connectivity in his rural location
- Loses up to 30% of harvest due to inability to find buyers quickly

Goals

- Get better prices for his farm produce
- Connect directly with more buyers
- Reduce dependence on middlemen and intermediaries
- Use simple technology that doesn't require internet

Buyer Persona

Name: Amina Olatunji

Age: 43

Location: Lagos

Occupation: Teacher

Family: Single mother with 2 children

Background

Amina is a secondary school teacher in Lagos who spends a significant portion of her income on food for her family. She shops at local markets weekly and is always looking for quality produce at reasonable prices.

Challenges

- Rapidly rising food prices have strained her budget
- Limited time to visit multiple markets to compare prices
- Concerns about quality and freshness of produce
- Unreliable supply of certain staple foods
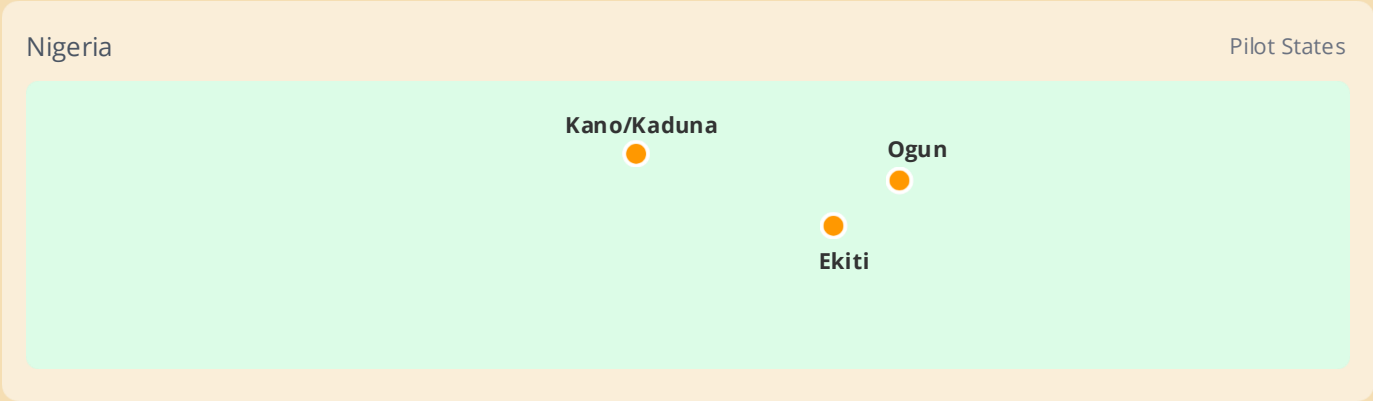- Food costs now consume over 60% of her monthly income

Goals

- Find affordable, quality food items for her family
- Purchase directly from farmers to save money
- Access fresh produce conveniently
- Use simple technology that fits into her busy schedule

Pilot Implementation Plan

Three-State Pilot (6 months)

Nigeria   Pilot States

Kano/Kaduna ●

Ogun ●

● **Ekiti**

📍 **Ogun State** (Pilot Center)

AgriConnect project location

📍 **Ekiti State**

Based on field observations

📍 **Kano/Kaduna States**

Representing northern region

👥 Target Users

5,000-10,000

Farmers across three states

(Potentially starting with smaller scale if needed)

📈 Key Performance Metrics

🏷 **Market Price**
Compared to baseline

％ **Farmer Sales**
Share of total sales

🕐 **Sales Time**
Transaction processing speed

⇄ **Transaction Volume**
Number of completed sales

Thank you for your attention

Implementation Roadmap

Development
0-3 months

Pilot
3-6 months

Scale
6-18 months

Goal: National Co

Phase 1: Development (0-3 months)

- Build USSD platform
- Integrate with telecom partners
- Design 5 language UX
- Implement security & NIN integration

Phase 2: Pilot (3-6 months)

- Launch pilot in 3 states
- Conduct training
- Monitor KPIs
- Establish logistics partnerships

Phase 3: Scale (6-18 months)

- Platform optimization
- Secure scaling funding
- System integration
- Nationwide rollout

Key Milestones

- 3-month: Platform ready
- 6-month: Pilot completion
- 18-month: National coverage

Thank you for your attention

Resource Requirements & Partnerships

Resource Requirements

Platform Development

- ✅ One-time development fee
- ✅ USSD short code acquisition
- ✅ Multi-language support (5 languages)

Operational Costs

- ✅ Support center establishment
- ✅ Training team deployment
- ✅ Promotion agents
- ✅ Monitoring & Evaluation (M&E)

Key Partnerships

Strategic Partners

🏢 **Telecom Companies**
USSD service provision

🏢 **MTN Foundation**
Support services

🏢 **Huawei**
Supplementary technology

System Integration

🔗 **State Agriculture Departments**
Local coordination

🔗 **AgriConnect**
Platform integration

🔗 **National Registration System**
NIN verification

Funding Sources

Government Support

🏛 **Federal Government (FG)**
Core funding source

Development Partners

🌐 **World Bank**
Financial support

🌐 **IFAD**
Rural development focus

🌐 **FAO**
Agricultural expertise

Private Sector & Impact Investors

🏢 **Corporate Social Responsibility (CSR)**
Private sector funding

📈 **Impact Investors**
Sustainable growth

Expected Impact & Next Steps

Expected Impact

For Farmers
- Increased income through direct market access
- Reduced post-harvest losses
- Improved pricing for agricultural products

For Buyers
- Consistent supply of fresh produce
- Quality products at fair prices
- Reduced price fluctuations

For Food Security
- More stable food prices
- Reduced food inflation
- Improved access to quality produce

Next Steps

Short-term (0-3 months)
- Complete USSD platform development
- Integrate with telecom partners
- Design multi-language user experience
- Implement security and NIN integration

Medium-term (3-6 months)
- Launch pilot in three states
- Train users and collect feedback
- Monitor key performance indicators
- Establish logistics partnerships

Long-term (6-18 months)
- Platform optimization
- Secure scaling funding
- System integration
- National rollout

Thank you for your attention and support

Thank You

"Connecting farmers to markets is not just business—it is building bridges to food security."

- Quantum Quads

Team Members

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