

# NIGERIA'S AGRICULTURE AND FOOD SECURITY CHALLENGES

## PRESENTATION OUTLINE

### 1.0. INTRODUCTION

#### 1.1. Agricultural Prospects:

- Nigeria has a land area of 98.3million ha; 74million ha is good for farming; but less than half is being explored.
- The population involved in farming is ↑ (60 – 70%).
- Agriculture's contribution to GDP is also ↑ (41.5%).
- Output of food per capita is among the ↑est in SSA.
- Crops, livestock and fish have potentials for providing food and nutrition.

#### 1.2. Paradox:

- Yet, there is threat of hunger and poverty; 70% of the population live on less than N100 (US \$ 0.7) per day.
- Youth unemployment is ↑.
- Smallholder farmers constitute 80% of all farm holdings; their production system is inefficient; there is regular shortfall in national domestic production.
- Food import is thus a common feature.

#### 1.3. Hope:

- Agriculture is a key sector that can affect majority of Nigerians.

### 2.0. FOOD SECURITY SITUATION

#### 2.1. Food Security Status:

- This is a fundamental agricultural objective in Nigeria;
  - Households should have access to good and nutritious food for healthy living.
  - Population should be healthy to create national wealth.

#### 2.2. Fundamental Issues of Food Security:

- **Is Food Available?**
  - Domestic food production is on the ↑ ; but not enough to meet national food demand.
- **Is Supply of Food Stable?**
  - Post harvest losses are ↑ (20 – 40%), because harvesting, processing / storage techniques are inefficient; as a result, supply is unstable.

- **Do people have Access to Food?**
  - Access to adequate and nutritious food is limited by low income / poverty, because nutritious foods are sometimes expensive.
- **What is Food Utilization Like?**
  - Food in-take and nutritional well-being of many households are of relatively low quality; and are affected by their low economic status.
  - The vulnerable and food insecure include the poor, smallholder farmers, children, pregnant women, lactating mothers and the elderly.
  - About 60.8% Nigerians are malnourished.

### 2.3. Prevalent Deficiency Diseases:

- Iron deficiency, which affects physical capacity, and in severe cases lead to death and susceptibility to infections.
  - Protein Energy Malnutrition (PEM), which causes growth failure in children, and weight loss in adults; Relationship exists between PEM and infections like measles, diarrhea, whopping cough, tuberculosis, and malaria.
  - Vitamin A, deficiency, which ↓ resistance to infections.
  - Obesity, which is on the ↑; affects more of urban dwellers; and results from imbalanced nutrition. It is accompanied by hypertension, diabetes mellitus, and cardiovascular diseases.
- Problem of the vulnerable and food insecure can be addressed by ↓ poverty, ↑ accessibility of households to adequate and nutritious food all the time.

### 2.3. Food Balance Sheet:

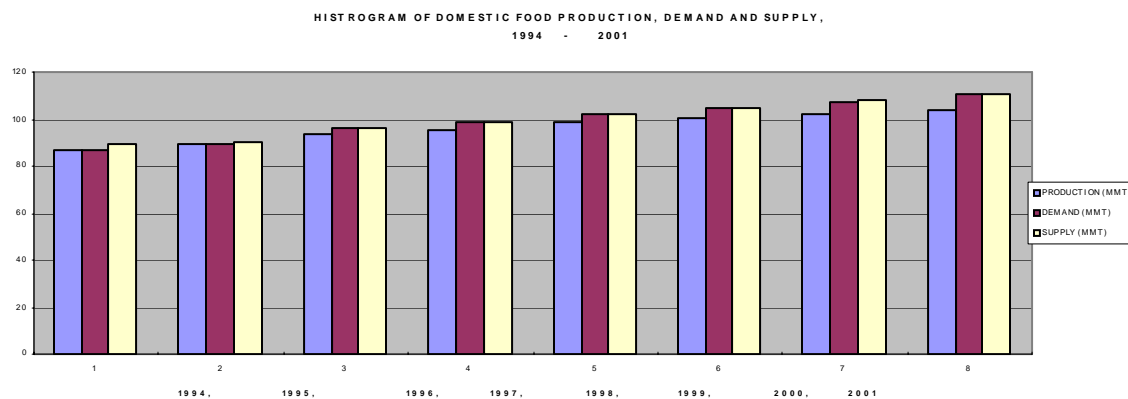
- The table below shows domestic food production, demand and shortfalls between 1994 – 2001; the graph shows production, demand and supply.
- Domestic production ↑; but demand remained above production.
- Shortfall ↑; food import equally ↑

## Comparison of Food Production, and Demand with Shortfalls and Imports (Million Mt)

Description	1994	1995	1996	1997	1998	1999	2000	2001
Production	86.70	89.25	93.35	95.64	98.74	100.41	102.12	103.86
Food demand	87.23	89.55	96.26	99.03	101.87	104.63	107.46	110.37
Shortfall surplus( 0.53)	(0.30)	(2.91)	(3.43)	(3.13)	(4.22)	(5.34)	(6.51)	
Food import	0.67	0.58	2.95	3.47	3.24	4.48	5.59	6.91

Source: FOS, Review of the Nigeria Economy, Various Issues

### Histogram of Domestic Food Production, Demand and Supply



- If nothing is done about the shortfalls, it may sooner than expected become too ↑ to manage.

#### 2.4.1. Food Export:

- Nigeria is a net food importer
- Food export trade was between 0.04m and 0.35m mt during 1999 – 2001

#### 2. 4.2. Managing Food Production for Increased Growth.

- Food production must grow consistently well above demand to bridge shortfalls.

### 3.0 EVOLUTION AND TREND OF AGRICULTURAL SUPPORT

#### 3.1 Agriculture's Importance:

- Agricultural sector has hope considering the prospects mentioned in 1.1

#### 3.2 Origin of Support:

- Nigeria's agriculture at independence (1960) was characterized by:-
  - High production achieved by mobilizing small scale farmers.
  - Provision of infrastructure (roads, railways) geared towards developing crops required for export.
  - Food was abundant; demand met without resort to import.
  - Foundation for research and export was laid

- Government interventions in agriculture after independence were realized within the Development Plans and annual budgets.

### 3.3 **Agriculture's Contribution to Food Security:**

- Agriculture has contributed to national food security by helping to maintain a healthy and peaceful population.
- It has also been a source of food and nutrition for households.
- Agricultural export earnings grew from ₦2.85b (US\$ 0.354b) to ₦19.17b (US\$ 2.484b) between 1990 and 2000.

### 3.4 **Challenges and Opportunities for Agric Development:**

- Some of the obstacles on the way to agricultural development include:
  - Soil Infertility problems which are caused by water and wind erosion. Problem of water erosion can be addressed by developing covers for the soil, and improving soil structure through promotion of organic matter use, and good agronomic practices.
  - Problem of wind erosion can be addressed by planting trees which are also of economic value, and can provide cover for the soil.
  - Inadequacy of rain-fed agriculture  
This can be addressed by providing more support for fadama development and management.
  - Non fine-tuning of macroeconomic and agricultural sector policies to meet the need of farmers and investors in agriculture.
  - Uncontrolled food import including those with local substitutes:
    - i. This can be addressed by not allowing food import to be a disincentive to local producers.
    - ii. Local food production needs to be encouraged by making inputs available, giving farmers access to more farm land, providing micro credit at subsidized cost, supporting adequate processing and storage, providing market facilities, and discouraging import of produce with local substitutes through ↑tariffs.
- External Development Assistance should be pursued in view of meager financial allocations to the sector which can be seen in 3.5

### 3.5 **Budget and Fiscal Support:**

- Development Plans and annual budgets provided funds for support to agriculture. These are however hardly enough to support the sector.

## Summary of Agricultural Budgets and Expenditures of the Development Plans

Development Plans	Budget		Agric as % of Total	Expenditure		Agric Exp as % of Total
	N'b	US \$'b		N'b	US \$'b	
1962 - 68	0.15	0.19	11.6	0.10	0.13	7.7
1970 - 74	0.33	0.43	9.9	0.21	0.27	6.3
1975 - 80	3.09	4.03	7.2	2.10	2.74	4.8
1981 - 85	8.82	11.53	N.Av	N.Av	N.Av	NAv

Source : CBN, National Development Plan, 1992

Dollar conversion is in 1984 constant factor

## Summary of Agriculture's Annual Budgetary Allocations, 1990 - 2002

Year	Total Budget		Allocation to Agric		% of Total
	N'b	US \$'b	N'b	US \$'b	
1990	39.76	4.94	1.96	0.24	4.95
1991	38.66	4.80	0.67	0.08	1.74
1992	52.03	6.47	0.92	0.11	1.78
1993	112.10	13.94	2.83	0.35	2.53
1994	110.20	13.71	3.71	0.46	3.37
1995	153.49	19.09	6.92	0.86	4.51
1996	337.21	41.95	5.71	0.71	1.69
1997	428.21	53.27	8.66	1.07	2.02
1998	487.11	60.60	9.04	1.12	1.86
1999	947.69	117.90	12.15	1.15	1.28
2000	701.05	87.21	13.60	1.69	1.94
2001	1,018.02	126.65	64.94	8.07	6.38
2002	1,018.15	126.67	44.80	5.57	4.40

Source: CBN, Statistical Bulletin and Annual Report, Various Issues

Dollar Conversion is in 1990 constant factor.

### 3.6. Institutional Support:

- Many institutional programmes in agriculture have been undertaken since the sixties, such as:
    - i. National Accelerated Food Production Programme(NAFPP) } 2<sup>nd</sup> Plan
    - ii. River Basin Development Authority Programme (RBDA) } 1970- 74
    - iii. Operation Feed the Nation (OFN)
    - iv. Rural Integrated Agricultural Development Programme(ADP) } 3<sup>rd</sup> Plan
    - v. Green Revolution Programme(GR) } 1975 -80
    - vi. Agro Service Center Programme (ASC)
    - vii. National Seed Service (NSS)
    - viii. National and State Food Production Companies
- \* Fourth Development Plan was characterized by slow progress, there was massive food import.
- \* SAP was introduced (1985 \ 86) to deregulate and stimulate local production.

- ix. National Acceleration Crops Production Programme (NAICPP)- 1996
- x. Agricultural and Rural Transformation Programme (ARTP) – 2000
  - National Economic Empowerment Development Strategy (NEEDS) was introduced in 2003\2004; it is a reform programme that encourages private sector operations.
- xi. Presidential Initiative Programmes (being implemented within the framework of NEEDS.
  - There are many other externally supported programmes e.g. RTEP, SPFS, etc.

### 3.7. Agriculture's Funding Problem:

- Funding was, and remains a major problem for both the government and farmer investor.
- Government budget for agriculture has been ↓, and should rather be ↑
- Development assistance from external agencies should be sourced, to complement sparse local funding.
  - Effort should be made to achieve reasonable drawn down of external development funds by playing to rule.

### 3.8. Comparing Evolution of Public Support with Trends in Agric Development and Food Security:

- Government has been intervening in agriculture in the post.
- Food production has also been on the ↑
- But food deficit has not only remained, but is on the ↑ (4.1)
- Many Nigerians are food poor / food insecure; with attendant health risks; and reduced work capacity,
- Agriculture deserves concessional support to raise output, and attain food security.

## 4.0. IMPACT OF FOOD IMPORT

### 4.1. Level of Dependence on Food Import:

- Nigeria depends on commercial food import to fill the gap in deficit supply.

**Food Shortfall and Import, Million Mt (1994 – 2001)**

	1994	1995	1996	1997	1998	1999	2000	2001
Shortfall (Deficit)	0.53	0.30	2.91	3.34	3.13	4.22	5.34	6.51
Food Import	0.67	0.58	2.95	3.47	3.24	4.48	5.59	6.91

Source: FOS, Review of the Nigeria Economy, Various Issues.

## 4.2. The Impact:

- It has favourable and unfavourable impacts,

### 4.2.1. Impact on Domestic Food Supply:

- Affects household food consumption and demand patterns by heightening the taste for foreign foods (e.g. foreign rice, fruit juice).
- Linked with this change is growing dislike for some local foods (Yam – Dioscorea; Cocoyam – Colocasia)

### 4.2.2. Impact on Domestic Producer and Consumer Price:

- ↓ domestic producer price; reduces farm income
- ↓ consumer price: leading to consumer sovereignty (farmer is price taker).
- ↓ farm income is disincentive to production ; some farmers (younger / inexperienced ones) leave.

### 4.2.3. Impact on Farmer's Productivity:

- ↓ farm income has spiral effects,
- Affects socio-economic status of farmer (poverty / hunger)
- Household health is affected (↓ resistance to disease)
- ↓ capacity for work.
- ↓ educational achievement (farm household).
- Puts pressure on some farmers to pursue new technologies.

### 4.2.4. Impact on Vulnerable Group:

- Has different impacts on the vulnerable group;
- Among small-scale farmers and ↓ income earners, where income is ↓, there is inadequate feeding / poor nutrition.
- Among vulnerable consumers, when price is ↓, it sometimes brings about better feeding / improved nutrition.
- New eating habits from some imported foods ↑ incidents of nutritional problems (beriberi and obesity).

### 4.2.5. Macroeconomic Impact:

- Commercial food import is demanding on the economy (see table).
  - What is spent on FX to import food with local substitutes could be used in direct investment in agriculture to achieve ↑ result.

### Food Import Bill (N'b and US \$'b), 1990 – 2001

Currency	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Naira	3.47	7.79	11.74	13.95	16.77	88.35	75.95	100.64	102.16	103.49	120.05	195.81
US \$	0.43	0.97	1.46	1.73	2.09	10.99	9.45	12.52	12.71	12.88	14.35	24.36

Source: 1. CBN, Statistical Bulletin and Annual Report (Various Issues)

2. CBN, Annual Report and Statement of Account, 2000

Dollar conversion is in constant 1990 factor.

- Food import bills are worsened by declining FX rate; this fans local inflation.  
(e.g. ↑est inflation rate of 72.8% recorded in 1995 occurred same year  
↑est quantum leap in food import bill of N88.35 b (US \$' 10.99b) was recorded.

#### 4.2.6. Positive Impact of Food Import:

- It is a reliable short term measure for meeting deficit food supplies.
  - It helps to stabilize domestic price.
  - Provides employment for importers, even though some local producers may have been displaced.
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- Food import is probably a concept that will remain in a global world; As an agricultural nation, Nigeria has natural endowments to drive agriculture towards export orientation, and cease being a net food importer.

## 5.0. PROPOSAL FOR MAKING NIGERIA FOOD SECURE ON SUSTAINABLE BASIS

### 5.1. Development Opportunities:

#### Crops –

- i. Research support for raising foundation / breeder seeds; and development of seed gardens for tree crops.
- ii. Support for field planting of arable / tree crops (land acquisition assistance; mechanization; extension; training; micro credit for inputs)
- iii. Soil fertility improvement using organic matter to plant arable crops and planting of economic trees in marginal and eroded soils.
- iv. Infrastructure and organizational support for fadama development
- v. Farmer / investor support for production, processing, storage and market of produce.



**Livestock:**

- i. Research support for improvement of stock breeds (sheep/goat, cattle, ruminants (grasscutter), poultry)
- ii. Control of livestock diseases
- iii. Development of grazing reserves (settle pastoralists)
- iv. Farmer/investor support for production/processing/storage/market

**Fish:**

- i. Support to hatcheries for production of fingerlings.
- ii. Stocking high quality and fast growing fingerlings in reservoirs, dams and lakes.
- iii. Support to fish farmers for production/processing/storage/market.

**5.2 Policy Orientation:****Farmland:**

- The policy orientation will be directed towards making more farm land available to the farmer by organizing the pooling of land, so that his operations can benefit from economy of scale. This will be started on pilot scale in rice and maize grown throughout the country.

**Fertilizer:**

- The objective will be to deliver inorganic fertilizers through private suppliers so that it will be available to the farmer on time.
- The approach will minimize racketeering, and prepare farmers towards buying fertilizer at cost. The policy will in addition encourage the use of organic matter as alternative to inorganic manure.

**Mechanization:**

- The objective is to promote farm power use by making more functional tractors available.
- Purchase of work bull and animal drawn implements will be facilitated.

**Fadama Development:**

- The objective is to provide support for water management systems in low lying flood plains (fadama), so that farming activities can go on, particularly in the dry season.
- This will involve provision of infrastructure like access road in fadama areas, and promotion of institutional organization of fadama users.

**Processing:**

- Policy orientation will be to add more value to produce from the farm and promote shelf life.
- This will be encouraged through provision of credit to farmers / investors.
- More studies on processing of staple foods that are on production decline will be undertaken to improve their form and acceptability.

**Storage:**

- The objective will be to provide models of on – farm storage facilities at the ADPS for farmers to see, and arrange to reproduce.

**Market:**

- The policy objective is to prepare the produce for the market by providing support for the provision of facilities for sanitary and phyto-sanitary services in order to improve the grade of their product. Market information will be made available through the commodity association which the farmer belongs.

**Micro credit:**

- Policy thrust will be towards providing credit support for small scale farmers who constitute 80% of farm holdings, and some medium scale operators.
- Interest rate (IR) on borrowed capital should be low.

**Extension and Training:**

- Extension support will be provided to farmers; training on relevant skills will be extended to both farmers and extension officers.

**Food Import:**

- Policy orientation will be to minimize food import, particularly those that have local substitutes, so that local production can be stimulated.
- This will be achieved through recommending high tariffs on such imported foods.