



# Leveraging Technology to Develop Agriculture in Nigeria

**Presented By**

**ACIOE ASSOCIATES**

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## Nigerian Agricultural Sector( An Overview) Brief History

- ▶ Nigeria is indeed blessed with vast natural resources amongst which is very fertile soil for agriculture, with an expanse of land which is estimated at 91million hectares out of which 81million is arable (1990).
- ▶ Most parts of the country have very rich arable land, well drained and aerated soil with evenly distributed rainfall, it is warm for most parts of the year.
- ▶ Agriculture has been a part of the culture and history of Nigeria before and after the colonial periods, Hence the “Green” on the Nigerian Flag. With a population of over 180million people, about 75% of which depend on Agriculture as a source of livelihood.
- ▶ The pre-colonial economy was predominantly agrarian with basic farm tools and nomadic livestock rearing.
- ▶ The post colonial era was characterized by the demarcation of Nigeria based on exportation priorities which where; Western Region (cocoa), Northern Region (groundnut) and Eastern Region (oil palm).



## Nigerian Agricultural Sector( An Overview) Brief History(Cont..)

- ▶ Nigeria's first national plan (1962-1968), emphasized the introduction of modernized agricultural methods and agricultural practices ; this was highlighted through farm settlements , cooperatives, improved supply chain management and comprehensive extension service delivery
- ▶ This was followed by a series of schemes;
  - Farm Settlement Schemes
  - National Accelerated Food Production Programme (NAFPP), launched in 1972.
  - Operation Feed the Nation, launched in 1976;
  - River Basin and Rural Development Authorities, established in 1976
  - Green Revolution Programme, inaugurated in 1980
  - The World Bank-funded Agricultural Development Projects (ADP).

## Nigerian Agricultural Sector( An Overview) Brief History(Cont..)

- ▶ The ADPs was the revolution on Agriculture in Nigeria, it represented the major practical approach to Agricultural development in Nigeria , it was on these bases that subsequent initiatives where formulated
- ▶ With the discovery of oil and owing to its boom in the 1970s, focus on agricultural produce took a downward spiral.
- ▶ At independence in 1960 the contribution of agriculture to the GDP was about 60%, which is typical for developing agrarian nations. However, this share declined over time to only about 21.2% in 2018.
- ▶ Between 1970 and 1982, agricultural production stagnated at less than one percent annual growth rate, at a time when the population growth was between 2.5 to 3.0 per cent per annum. There was a sharp decline in export crop production, while food production increased only marginally. Thus, domestic food supply had to be augmented through large imports. The food import bill rose from a mere N112.88m annually during 1970 - 1974 to N30.6 billion by 2011.
- ▶ The years since the early 1960s have also witnessed the establishment of several agricultural research institutes and their extension research liaison services. Some of the major institutions are:
  1. Agricultural Extension and Research Liaison Service (AERLS) at the Ahmadu Bello University, Zaria established in 1963
  2. The International Institute of Tropical Agriculture (IITA) established in 1967
  3. International Livestock Centre for Africa (ILCA).

## Nigerian Agricultural Sector( An Overview) Brief History(Cont..)

Other intervention put in place to boost the growth of the agricultural sector are;

- **National Accelerated Food Production Programme (NAFPP);** was an agricultural extension programme initiated in 1972 by the Federal Department of Agriculture during General Yakubu Gowon's regime. The programme focused on bringing about a significant increase in the production of maize, cassava, rice and wheat in the Northern states through subsistence production within a short period of time. The programme was designed to spread to other states in the country after the pilot stage that was established in Anambra, Imo, Ondo, Oyo, Ogun, Benue, Plateau and Kano states.
- **Operation Feed the Nation (OFN):** This programme evolved on 21st May 1976 under the military regime of General Olusegun Obasanjo. Launched in order to bring about increased food production in Nigeria through the active involvement and participation of every citizen to ensure capability of partly or wholly feeding themselves. Under this programme every available piece of land in urban, sub-urban and rural areas was meant to be planted while government provided inputs and subsidies (like agrochemicals, fertilizers, improved variety of seed/seedlings, day old chicks, machetes, sickles, hoes etc.) through government establishments.
- **The River Basin Development Authority (RBDA):** River Basin Development Decree was promulgated in 1976 to establish eleven River Basin Development Authorities (RBDAs) (Decree 25 of 1976). The initial aim of the authorities was to boost economic potentials of the existing water bodies particularly irrigation and fishery with hydroelectric power generation and domestic water supply as secondary objectives. The objective of the programme was later extended to other areas mostly to production and rural infrastructural development.

## Nigerian Agricultural Sector( An Overview) Brief History(Cont..)

- ▶ The Green Revolution:
- ▶ The Nigerian Agricultural Land Development Authority (NALDA)
- ▶ National Fadama Development Project (NFDP)
- ▶ National, Special Programme on Food Security (NSPFS)
- ▶ Root And Tuber Expansion Programme (RTEP)



## PRESENT DAY

- ▶ **Agricultural Transformation Agenda (ATA):**
- ▶ In 2011 the government of Nigeria, launched the Agricultural Transformation Agenda, with the aim of changing the perception about agriculture as a development issue instead of pure business.
- ▶ The vision in the transformation strategy is to achieve a hunger-free Nigeria through an agricultural sector that drives income growth, accelerates achievement of food and nutritional security, generates employment and transforms Nigeria into a leading player in global food markets to grow wealth for millions of farmers. In order to achieve this vision, the value chain approach has been in use. Fertilizer procurement and distribution, marketing institutions, financial value chains and agricultural investment framework are poised for a change using this approach.
- ▶ Ironically, the issues and challenges have not changed much since the dawn of agriculture in Nigeria. Majority of farmers (more than 65%) still use the crude method of farming; Storage ideas and facilities have not improved much and thus losses incurred from postharvest handling are still very high; Infrastructure development has not progressed to meet the current challenges, resulting in stagnation of processes and logistical nightmare; Access to markets has remained a recurring headache making the idea of Farming very unattractive to most people.



## ▶ **Agricultural Promotion Policy 2016-2020**

The objectives of the APP are as follows;

- ▶ Integrate agricultural commodity value chains into the broader supply chain of the Nigerian and global industry, driving job growth, increasing the contribution of agriculture to wealth creation, and enhancing the capacity of the country to earn foreign exchange from agricultural exports, boosting agriculture's Share of Non-Oil Exports Earnings to 75%.
- ▶ Promote the responsible use of land, water and other natural resources to create a vibrant agricultural sector offering employment and livelihood for a growing population.
- ▶ Facilitate the government's capacity to meet its obligations to Nigerians on food security, food safety and quality nutrition with agriculture's Share of Federal Budget at approximately 2.0%.

## Challenges in the Agricultural Sector

- ▶ Poor financial inclusion from both the government and financial institutions.
- ▶ The use of rudimentary farming implements and the expensive nature of mechanized implements.
- ▶ Inadequate production inputs e.g. fertilizer, pesticides, insecticides etc.
- ▶ Poor agricultural practices which leads to post-harvest loss.
- ▶ Weather and climatic variations. Although not man-made determine to a large extent the yield of agricultural produce in Nigeria.
- ▶ Inadequate farm facilities and social amenities for the farming families.
- ▶ Lack of adequate irrigation facilities across the country to enable farming activities all year round.
- ▶ Poorly developed market systems and value chains causing farmers not to get maximum returns on their efforts.
- ▶ Inadequate funding for research.

## Current Players and Innovations

- ▶ **AFEX Commodity Exchange:** A commodities exchange platform that uses mobile technology to decentralize and de-risk commodities exchange for small holder farmers, brokers and aggregators.
- ▶ **Babban Gona;** Babban Gona is an investor owned social enterprise serving small networks of smallholder farmers with a model created specifically to attract youth. The members receive development and training, credit, agricultural inputs, marketing support, and other key services.
- ▶ **Hello Tractor;** Hello Tractor enables farmers to request affordable tractor services, while providing enhanced security to tractor owners through remote asset tracking and virtual monitoring. This value also extends to banks financing tractors and dealers who service them.
- ▶ **Farmcrowdy;** Nigeria's First Digital Agriculture Platform that empowers rural farmers by providing them with improved seeds, farm inputs, training on modern farming techniques and provides a market for the sale of their farm produce.
- ▶ **The GreenRise Innovation Hub;** The GreenRise Innovation Hub Nigeria is a food, agriculture and agricultural technology hub dedicated to specifically inspire and empower food, agriculture, ag-tech entrepreneurs and startups in Nigeria to build innovative and tech-based solutions for the agriculture and agribusiness sector in Nigeria.



# Financing the Tech Expansion; Challenges and Players

## ► **Sahel Capital**

Sahel Capital is a leading fund manager and advisory firm focused on West Africa with deep roots in private equity, financial advisory, management consulting, and agribusiness.



## ► **NIRSAL**

The Nigeria Incentive-Based Risk Sharing system for Agricultural Lending (NIRSAL) was launched in 2011 and incorporated in 2013 by the Central Bank of Nigeria (CBN) as a dynamic, holistic USD500 Million public-private initiative to define, measure, price and share agribusiness related credit risk.

## Going Forward ; Challenges and Next Steps

- ▶ The challenges are enormous, technological innovation and financial inclusion takes the lead in the challenges of Agriculture in Nigeria.
- ▶ The Agricultural sector is capital intensive with a public private partnership in key priority sub-sectors this would bring the much needed development in the Agricultural sector.
- ▶ Putting into retrospect the fact that most farmers are peasant in nature, innovations designed should be compact, easy and affordable to be use by these farmers who form majority of the farming population.



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