



Sahel Capital Partners & Advisory Limited  
Sahel Capital Agribusiness Managers Limited

*Creating Value, Building Businesses, Transforming Communities...*



## Cassava: A Staple Crop in Nigeria

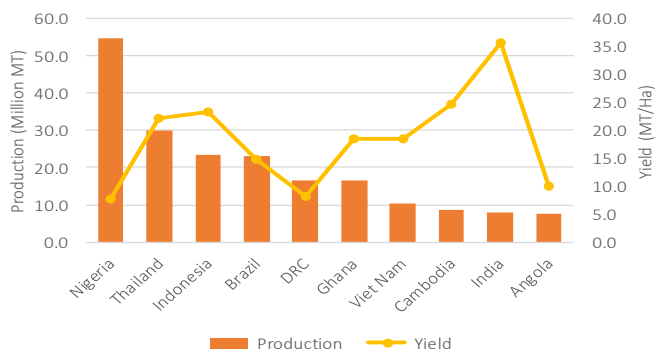
Cassava is a staple of choice across cultures and social divides in Nigerian households. The majority of the tuber produced is consumed locally as traditional meals. It is the most important crop by production, and the second most important by consumption (FAO, 2014).

Africa produces over 54% of the world’s cassava, with Nigeria taking the global lead with a production of about 54.8 million MT in 2014 (FAO, 2014). Nevertheless, Nigeria’s average yield of 7.7 MT per hectare, is very low compared to the 23.4 MT and 22.2 MT average yield per hectare produced respectively in Indonesia and Thailand, the other leading cassava producers in the world (FAO, 2014).

Despite being the biggest producer of Cassava in the world, Nigeria’s yield levels show that its farming techniques are inefficient compared to world’s best practices.

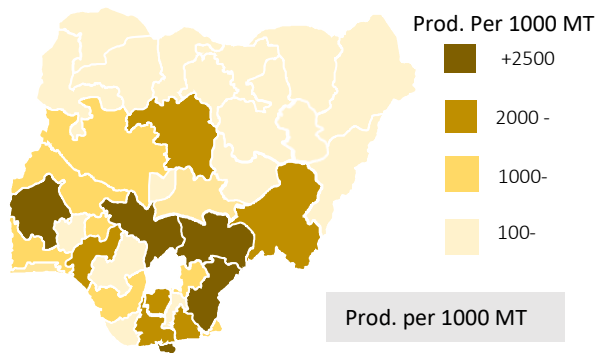
Cassava is grown in all agro-ecological zones of Nigeria, but thrives in the rainforest and derived savannah areas. Production is highest in the North Central and South-South regions.

**Figure 1: Production and average yield of the top ten cassava producing countries**



Source: Faostat, 2014

**Figure 2: Areas of cassava production in Nigeria**



Source: Sahel Capital 2014

## Traditional and Industrial Processing Systems

Nigeria’s cassava processing methods have known little innovation until recently. Most of the cassava harvested in Nigeria is processed into food to obtain gari, fufu, and lafun. There is little processing of cassava into products such as ethanol, chips, syrups, starch and High Quality Cassava Flour (HQCF). Nigerian processors can thus be categorised as follows:

**Table 1: Classification of cassava processors**

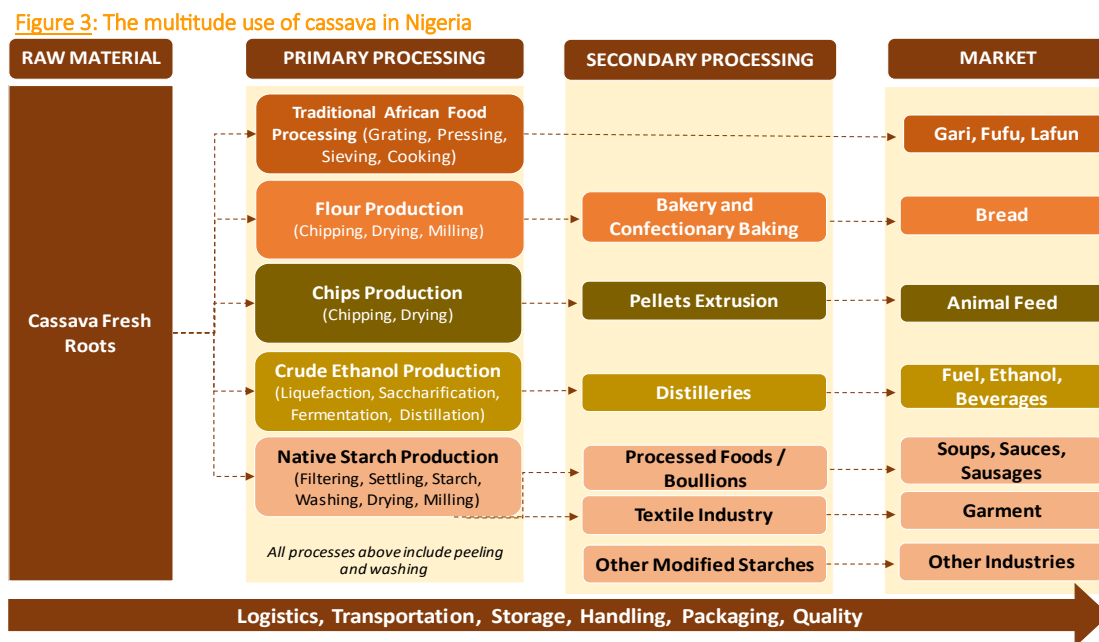
Individual/household processors	Medium scale processors (SMEs)	Industrial processors
<ul style="list-style-type: none"> <li>Artisanal. Manual techniques and rudimentary technologies</li> <li>Often purchase cassava from smallholder farmers</li> <li>Process into food products for household consumption and few sales in open markets</li> <li>95% of the processors’ population</li> </ul>	<ul style="list-style-type: none"> <li>Semi-automated techniques. New technologies</li> <li>Mostly cooperatives which process cassava into gari or individuals that source cassava food products from community-based processors</li> </ul>	<ul style="list-style-type: none"> <li>Automated techniques and new technologies</li> <li>Predominantly integrated operations, with commercially cassava farms and automated processing equipment</li> <li>Process cassava into industrial starch, HQCF, ethanol, chips, and syrups</li> </ul>

## Women Dominate Cassava Processing Activities

Women dominate the individual/household processors category. They typically work in cooperatives or as laborers for SMEs. Often helped by family members, women go through tedious, inefficient and unhealthy processing methodologies such as the inefficient practices of hand peeling and manual frying.

Efforts are underway to increase mechanization in cassava production and processing in order to raise cassava from a subsistence crop to an industrial one. Women can benefit from mechanization to increase their productivity and incomes, given their role and large representation in the sector. However, inclusive transition strategies are needed to address key constraints women face at disproportional levels than men. These include issues of ownership and/or access to land, of access to equipment and inputs for production, of limited access to finance, of slow adoption of new technologies, and of lack of business management skills.

The table below presents the processing activities and usages of cassava in Nigeria:



Source: Adapted from UNIDO Cassava Masterplan Document, March 2006

## Cassava Seed Systems

The production of cassava is dominated by over 6 million families, typically smallholders with an average farm size of 0.5 Hectares. Over 90% of these farmers use the informal seed system by recycling stems from the previous harvest. Less than 5% buy new stem cuttings, leading to poor yields.

Cassava production is plagued with issues of inefficient production and distribution of quality planting materials and an unreliable quality assurance system. These issues hinder the production of quality cassava roots that are of interest to end users particularly industrial processors. Improving access to quality seeds and transiting from subsistence to commercial production requires an integrated seed system, where certified cassava stems are available and accessible from formal (seed companies, NGOs and research institutes) and informal (village seed entrepreneurs) sources. Sahel Capital has been at the

forefront of initiatives based on integrated seed systems, in collaboration with the CGIAR research program on Roots, Tubers and Bananas (RTB), National Agricultural Seed Council (NASC), National Root Crops Research Institute (NRCRI), International Institute of Tropical Agriculture (IITA), Catholic Relief Services (CRS), Context Global Development, and FERA (UK). The consortium is pioneering a processor-led model of cassava seed system in Nigeria through the BASICS Project.

*Building an Economically Sustainable and Integrated Cassava Seed System in Nigeria (BASICS) is a 4-year project funded by the Bill and Melinda Gates Foundation. The project aims to establish an innovative, commercially and economically viable stem business model. This model seeks to increase yield by 40% by implementing the rapid propagation technology-autotropic hydroponic system (SAH) which will enable smallholder farmers to provide high quality cassava roots to industrial processors and thus improve their income. BASICS' vision is that by 2019, smallholder cassava growers will be buying high quality stems of their preferred varieties and planting them with improved agronomic practices.*



## Recent Innovations in Cassava Produce

A growing middle class and increasing urbanization is fostering innovations both in the processing and in the packaging of cassava. For example, in order to meet the needs of the growing urban population that is increasingly shopping in formal outlets such as supermarkets, traditional products such as fufu, and garri are subject to innovative packaging and are being sold at more remunerative prices. New products are also being introduced which provide increased convenience (e.g. garri/sugar/peanut all-in-one package), and offer new tastes (e.g., fruited garri). New cassava varieties have also been introduced which either reduce waste during peeling, are biofortified with vitamin A, or generate higher yields than traditional varieties. There have also been innovations around using cassava peels for animal feed as a substitute for maize.

Below are illustrations of recent innovations in cassava

**Table 2: Examples of Innovations in Cassava**

Improved varieties:	Fruited garri:	Animal Feed:
 <p data-bbox="140 815 478 871">An improved variety of cassava to reduce wastage in cassava peeling</p>	 <p data-bbox="603 815 916 842">Garri processed with fresh <b>fruits</b></p>	 <p data-bbox="1070 815 1414 871">The roots processed into chips and used as feed</p>
HQCF and Cassava Starch:	Processing equipment:	Package local products:
 <p data-bbox="137 1099 488 1126">Used for confectionaries and baking</p>	 <p data-bbox="525 1099 987 1155">Localized processing equipment adapted to the varieties of cassava found in Nigeria</p>	 <p data-bbox="1050 1133 1426 1160">Innovative packaging for garri and fufu</p>

## Nutrient Rich Cassava

Nigeria has one of the highest rates of malnutrition globally, with about 20% of pregnant women and about 30% of children under five suffering from vitamin A deficiency (IITA, 2011). Cassava in itself is low in vitamins, protein and nutrients. However, due to its nationwide acceptability, it can be used as a vehicle for improved nutrition for the millions of Nigerians who consume it, including women of child-bearing age and children. To this effect, HarvestPlus developed the bio-fortified cassava varieties to be processed into food by the private sector players engaged in key consumer-focused sectors. The biofortification, entails adding micronutrients such as mineral and vitamin complements to increase iron, zinc and pro-vitamin contents of cassava roots.

Various programmes are underway to increase the acceptability, awareness, and use of the bio-fortified cassava stem varieties that are more nutritious for food production. An initiative led by key stakeholders including HarvestPlus, IITA and the Gates Foundation that has been underway since 2010 is Bio-Cassava Plus: Nutrient Dense Cassava Products for Improved African Livelihoods. The programme focuses on promoting the production and adoption of vitamin A rich cassava in Nigeria to provide up to 40% of daily vitamin A needs. One of the major achievements of the programme is the dissemination of 3 bio-fortified cassava varieties to over 136,586 farmers using Oyo-West, Imo-East, Akwa Ibom-South and Benue North as hubs to reach all other states. In addition, a number of food processors are engaging in the use of yellow cassava roots to increase vitamin A contents.



**Vitamin A fortified Cassava**

## Financing Cassava Development in Nigeria

Access to finance in the cassava value chain remains a key constraint to spur transformation, contribute to economic growth for the millions of people working in cassava, and improve food security.

Various investments are being made in research and production along the value chain in order to revolutionize the outlook of cassava in Nigeria. The latest of such efforts is the Rockefeller Cassava Innovation Challenge, a global competition, launched by the Rockefeller Foundation in partnership with Dalberg and IITA. The challenge seeks to address food loss and spoilage in the cassava value chain in Nigeria. The Challenge provided up to \$1 million, as well as technical assistance from Dalberg and IITA, to further develop novel solutions that will increase the shelf life of cassava. More information can be accessed on [The Rockefeller Foundation Cassava Innovation Challenge](#).

On the private sector front, between 2011 and 2016, Flour Mills Nigeria, the largest producer of HQCF in Nigeria, through its subsidiary Thai Farms, invested over 15 Billion Naira in the cassava value chain.

Other initiatives by the government and development partners seeking to encourage farmers to increase production and processing along the cassava value chain include the N13.6 billion cassava and rice intervention fund managed by the Bank of Industry and the Cassava Bread Fund. Furthermore, to facilitate farmers' access to finance, the Federal Ministry of Agriculture and Rural Development (FMARD) committed to strengthen the Bank of Agriculture to facilitate access to credit to farmers. In that same vein, the Central Bank of Nigeria (CBN), in collaboration with the FMARD, established the Commercial Agricultural Credit Scheme (CACs) that provides farmers with access to credit facilities at an interest rate of 9%.

## Company Spotlight

### Crest Agro Products Limited

Crest Agro Products Limited (CAP) was established in 2013 to produce and commercialize high quality cassava starch for food processors, pharmaceutical and textile industries.



Sitting on 13,000ha of land located in Kogi State, the company has cultivated about 800ha of cassava and has established an outgrowers scheme reaching about 400 smallholder farmers. CAP also intends to install a starch processing facility in 2017, with a capacity to produce 60 MT/day of food-grade starch to meet the needs of Fast Moving Consumer Goods (FMCG) companies across Nigeria.

### Psaltry International Ltd.

Psaltry was incorporated in 2005. It commenced the production and processing of cassava in 2012 with a 20 MT/day starch factory, and in 2015 added an additional 30 MT/day line. To meet the 50 tons/ day production capacity of its factory, the company sources fresh cassava roots from its 400 -hectare farm at Ado-Awaye, Oyo State, and depends on more than 2,000 registered and unregistered outgrowers.



Psaltry partnered with the International Fertilizer Development Center (IFDC)'s 2SCALE Project to enable it to enhance its engagement with smallholder farmers. To date, 976 farmers have been trained on land use management, integrated soil fertility management and mechanization from this partnership. Psaltry is also piloting a 5-year initiative titled the West Africa Food Markets (WAFM) Programme, which is intended to make staple foods like garri available, while increasing the purchasing power of farmers in food insecure areas of the Sahel region. The programme will develop effective distribution channels in Niger Republic where garri can be marketed.



## Sahel Speaks...

Various members of Sahel's leadership team presented at the following events during the last quarter of 2016

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- ◆ **Garri Revolution Conference:** Nathalie Ebo participated at the Garri Revolution conference in September 2016 at IITA, Ibadan. Her presentation was on the "Landscape Analysis of Garri Processing"
- ◆ **Made in Nigeria Festival Summit:** Ndidi Nwuneli spoke on a panel discussing "Fostering Innovation & Entrepreneurship and Increasing Access to Electricity" at the Made in Nigeria Festival Summit in September 2016.
- ◆ **20th Annual Stockbrokers Conference :** Nathalie Ebo was at the 20th annual stockbrokers conference in October 2016 and spoke on a panel on "Creating New Values for Sustainable Development".
- ◆ **2016 Agra Innovate Exposition:** Olumide Lawson spoke on the "Global Economic Outlook: New Horizons for Agriculture and Agri-food" at the November 2016 Agra Innovate Conference .
- ◆ **Sahel Capital Investors Conference:** Sahel Capital hosted a closed door investors' conference in Abuja in November 2016 for the Fund for Agricultural Finance in Nigeria (FAFIN).
- ◆ **Enterprise Development Centre's Agricultural Seminar:** Mezuo Nwuneli sat on a panel for an agricultural seminar organized by the Enterprise Development Centre (EDC) at the Pan Atlantic University, in November 2016.
- ◆ **African Agri Investment Indaba:** Olumide Lawson participated in a roundtable discussion on "What Makes African Countries an Attractive Investment Environment for Investors" at the African Agri Investment Indaba (AAIL), a global meeting place for agri investment in Africa, organized by the African Agri Council in Cape Town, in November 2016.
- ◆ **Super Return Africa Conference** Olumide Lawson made a presentation titled "Are there still Investment Opportunities for West Africa?" at the SuperReturn Africa conference in Cape Town, part of the SuperReturn series of world-leading private equity events, in November 2016.

## Sahel is hiring

The Nigerian Dairy Development Program (NDDP) is geared towards improving the livelihoods of smallholder dairy farmers in Nigeria by improving the productivity of their cattle and integrating them into the formal dairy value chain in Nigeria.

Sahel is hiring for the following positions for the NDDP:

- ◆ **Project Manager:**  
<http://www.careers24.com.ng/jobs/adverts/227775-project-manager-lagos/>
- ◆ **Project Coordinator-Kano:**  
<http://www.careers24.com.ng/jobs/adverts/227776-project-coordinator-kano/>
- ◆ **Project Coordinator-Oyo:**  
<http://www.careers24.com.ng/jobs/adverts/227776-project-coordinator-oyo/>
- ◆ **Monitoring and Evaluation Officer:**  
<http://www.careers24.com.ng/jobs/adverts/227792-monitoring-and-evaluation-officer-lagos/>
- ◆ **Nutrition Specialist:**  
<http://www.careers24.com.ng/jobs/adverts/227788-nutrition-specialist-lagos/>
- ◆ **Gender Specialist:**  
<http://www.careers24.com.ng/jobs/adverts/227787-gender-specialist-lagos/>
- ◆ **Dairy and Livestock Specialist:**  
<http://www.careers24.com.ng/jobs/adverts/227754-dairy-and-livestock-specialist-lagos/>