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# Nigeria

# Grain and Feed Annual

# Annual Report 2014

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**Report Highlights:**
Nigeria is a huge export market for wheat and rice. High demand for wheat flour for the production of bread, noodles, pasta, crackers and biscuits (cookies) contributes to Nigeria's wheat market estimated at just under $1 billion in U.S. exports for FY2013. Nigeria depends on about 3 million tons of parboiled rice imports to meet half of its rice demand. Demand for other grains such as corn, sorghum, millet, is also very high. The GON has initiated an Agricultural Transformation Agenda (ATA) to increase agricultural productivity and drastically cut food imports by 2020. Unfortunately, this effort utilizes punitive tariffs, levies and import bans to stimulate import substitution. Despite a lack of infrastructure, poor policy implementation, and an increasing state of insecurity caused by Boko Haram (BH) in the major grain-producing region in northern Nigeria, the GON persist with import substitution policies, weakening food security and increasing informal cross-border trade flows in grain.

**Post:** Lagos

**Executive Summary:**

Nigeria plays a pivotal role in the regional economy from being the largest market in West Africa. Policies implemented in the country also have far-reaching effects on the economic positions of countries throughout the region. The country is also of significant strategic importance for the United States in the non-oil trade as it is among the world's largest importers of U.S. wheat, with purchases valued at $959 million in CY2013.

In 2012, the Government of Nigeria (GON) initiated the Agriculture Transformation Agenda (ATA) program designed to significantly reduce food imports by increasing production of five key crops: rice, cassava, sorghum, cocoa and cotton. The overall objective was to increase agricultural production in order to increase domestic food production and generate employment. Under ATA, agriculture is treated as a business and not as a development project. It is intended to develop strategic partnerships with the private sector to stimulate investment in agriculture and repair the value chains in those agricultural sub-sectors where Nigeria perceives to possess a comparative advantage.

To pursue the ATA program, the GON introduced a number of import-substitution measures. It initiated a policy mandating cassava flour inclusion in wheat flour, starting with a 10 percent cassava flour inclusion rate in 2012, to increase steadily to reach 40 percent by 2015. Another policy goal was to increase domestic rice production to make the country self-sufficient in rice production by 2015, when rice imports will be banned. Attempts have been made to reach farmers with required inputs of fertilizers and improved seeds. However, implementation has been spotty and all supporting infrastructure is grossly inadequate. Many farmers continue to state that the GON policies and efforts have had little or no impact on their production.

Nigeria therefore remains a food deficit country and domestic agriculture remains underdeveloped. The country continues to depend on imports to meet domestic demand for food to feed its 170 million people. GON sources indicate that the country grew its national strategic grain reserve capacity from 200,000 tons in 2008 to one million tons in 2012. However, it could only hold less than 100,000 tons in 2012 out of which it released 40,000 tons during the 2012 flood, and another 20,000 tons to three states in Northwest Nigeria where the BH insurgency brought a state of emergency in 2013. This leaves the national balance of the country's food and grain reserve at 35,500 tons in 2014. This represents less than 4 percent of the installed capacity. Many analysts describe that level of installed capacity for the country at this time as wasteful and a misplacement of priority as the country lacks the infrastructure and funding to produce enough food requiring storage at that level. Currently, commodities in the national strategic grain reserves are corn (8,735 tons), sorghum (7,227 tons), millet (2,299 tons), soyabean (9,800 tons), paddy rice (6,000 tons) and garri (1,476 tons).

The BH threat poses major security concerns and has adversely impacted social and economic activities across northern Nigeria. It shows no signs of abating. Other security challenges such as kidnapping in the south-east of Nigeria and militancy in the Niger Delta region also limit large-scale farming of grains and other food and agricultural products within these regions. These problems hamper food production and distribution and have continued to generate concerns regarding Nigeria's food security.

Nigeria's demand for wheat based foods is large and growing. The GON cassava flour import-substitution initiative has impacted U.S. wheat market share negatively but market share is expected to rebound as Nigeria and its neighboring countries continue to demand high quality wheat based foods. Pressured by grossly insufficient domestic production and increasing demand by the poultry sector, larger imports of corn began in mid-2013. The ban on corn imports was lifted in 2008 but large-scale commercial shipments of corn had not occurred until recently due to uncertainties over custom enforcement activities.

Overall, agricultural and industrial analysts commend Nigeria's ATA programs for stimulating awareness about the existing potential of Nigeria's food and agricultural value chains. But the set targets and policy directions for accomplishing the ATA objectives as pronounced are seen as totally unrealistic. Nigeria requires major sustained investment and a longer period to fix its infrastructure and to drastically modify its agricultural policies and improve policy implementation in order to grow its agricultural sector to desired levels.

Livestock feed has remained a major growth challenge. Generally, feed constitutes about 70 percent of the cost of production for poultry, fish and other animals. Grains are the major component of feed and their high cost has continued to stymie growth in livestock supplies. Inadequate manpower, facilities and ingredients to constitute high quality feed as well as very weak GON oversight of feed production and imports are also among the major challenges in front Nigeria's agribusinesses.

In recognition of the importance of improving the animal feed situation, Nigeria's NAFDAC (FDA's equivalent) has initiated the creation of Veterinary Medicine And Allied Products (VMAP) Directorate for regulating feed import/distribution and marketing in Nigeria. It is developing the document that will establish the requirements for feed regulation. An early view of the draft document shows feed will be regulated in the same manner as the agency had done with regulating processed food products, with almost no focus on anything but the administrative process for registering product for sale in Nigeria. According NAFDAC's VMAP draft, "no Animal feeds, pet food, premixes and animal feed grade shall be manufactured, imported, exported, sold or distributed in Nigeria unless it has been registered in accordance with provision of NAFDAC ACT CAP N1 LFN 2004. Nigeria's NAFDAC, FDA's equivalent, (http://www.nafdac.gov.ng/) has the administrative control for regulating feed production, importation and distribution.

The Standards Organization of Nigeria (http://www.son.gov.ng/) sets the standards for all products (including feed, food and agricultural products) manufactured, imported and distributed into the country. Additionally, industry sources indicate that the GON's Nigerian Institute of Animal Science Act, 2007 (http://www.placng.org/lawsofnigeria/node/358) confers the power to regulate feed production, import and distribution to the Nigerian Institute of Animal Science (NIAS). Because of this apparent conflict among these institutions, it is unclear how this process will develop in the future. Post believes that there is a need to begin early to clarify and harmonize the feed regulation functions between these GON agencies for an efficient food regulation system in Nigeria.

Exchange Rate: US$1 = 170 Naira

**Commodities:**

Wheat

**Production:**
Nigeria's domestic wheat production is small at 70,000 tons in MY 2013/2014. Nigeria's northern states of Bornu, Yobe, Jigawa, Kano, Zamfara, Katsina, Adamawa, Sokoto and Kebbi, are major wheat growing areas. BH insurgency activities are growing stronger in many of these areas and local wheat production has declined during the year.

Unfavorable local climatic conditions requiring expensive irrigation also make it not competitive to grow wheat within this otherwise wheat suitable growing belt. These northern states are also strong producers of other food and agricultural products and the security challenges caused by BH have significantly reduced domestic food supplies generated from these areas.

**Consumption:**
Although Nigeria is a major market for HRW, in recent years there has been a steady increase in demand for other types of wheat such as Soft Red Winter (SRW) for use in cookies (biscuit) production, Hard White Wheat (HWW) for bread and noodle production, and Durum (wheat) for pasta.

The country's consumption of wheat remained high at about 3.8 million tons in MY2013/2014. This is a decline by 5 percent when compared to the approximately 4 million tons consumption figure recorded the earlier year. However, consumption is expected to maintain a steady rise from MY2014/2015 as consumer demand for wheat based foods continues to climb. Domestic supplies of other substitute staples within Nigeria and neighboring countries are also not keeping pace with population growth. This market gap is filled by wheat imports and the country's wheat milling capacity increased to about 8 million tons in MY2012/2013, up from 6.6 million tons a year earlier. However, Post is not aware of additional wheat milling facilities in calendar year 2013, but there are indications that wheat millers are gradually increasing production.

Flour Mills of Nigeria (FMN) continues to lead by capacity but other millers, such as Dangote, Honeywell, and BUA, keep increasing their market shares. Competition among the wheat millers is intense and is based on price and quality. The Nigerian baking industry continues to expand and upgrade its production facilities. There is a proliferation of all sizes of independent bakeries and retail in-store bakeries. The increased competition has resulted in a more diverse selection, increased variety, and better quality for the fresh baked products available to consumers.

Consumption patterns are also continuing to change in tandem with growth of the middle class. Production of bread flour also continues to expand because it is a standard item in the modern breakfast diet and it is convenient for many Nigerians. Compared with 2012, the quick service restaurant industry (fast food) offering savory, wheat-based pastries grew 10 percent in 2013 and contributed to increased wheat demand as well.

Nigeria has also continued to experience strong growth in the production of pasta (noodles), with almost all flour mills in the country producing noodles. The demand for pasta in Nigeria is very high and noodle imports are banned by the government. Nigeria's noodle manufacturers have also benefited from the removal of the ban on crude vegetable oil, a key component in instant noodle production. Increased imports of cheap palm oil have also resulted in a drop in production cost. Noodle production is estimated to use more than 560,000 metric tons of Hard Red Winter (HRW) wheat in MY2013/14, over one half of all the imported wheat.

According to industry sources, Nigerian wheat flour is exported informally to neighboring countries. Trade figures are not available for such exports, but industry sources estimate informal exports of wheat products at about 450,000 metric tons. Branded Nigerian flour is found in several countries in West and Central Africa. Market analysts argue that considering the high idle capacity (50 percent) in Nigeria's wheat milling sector, instead of embarking on the more expensive and less feasible effort to cut wheat imports through cassava substitution, the country should focus efforts to develop the export potential for wheat-based products in these nearby African markets and beyond, to earn foreign exchange and create jobs.

**Trade:**

Post estimates total imports at 4.2 million tons in MY2013/2014, up from 4.1 million tons last market year. Imports are forecast to increase to at least 4.3 million in MY2014/2015.

The GON began the implementation of a 15 percent levy on imported wheat grains which pushed the effective duty from 5 to 20 percent in July 2012. The GON also started to enforce its policy in 2012 that millers must include cassava flour in wheat flour beginning with a 10 percent cassava flour inclusion rate, increasing steadily to 40 percent by 2015. Flour millers and bakers are still struggling to develop the composite flour in order to comply with this directive. This has raised prices for wheat flour and flour-based products. Although imports continue to increase, this development has negatively impacted on wheat demand.

Nigeria's wheat imports from the United States are estimated at about 3 million metric tons per year for the last two years. Market share and import volume of U.S. wheat to Nigeria experienced some setbacks with the GON's wheat import reduction measures since mid-year 2012. Post expects a market rebound for U.S. wheat in the next few years as Nigerians continue to seek more wheat-based products made from the higher quality U.S. wheat. Nigeria's import of U.S. wheat is expected to exceed 3.1 million metric tons in TY2014/2015.

The United States has enjoyed a greater than 85 percent of Nigeria's wheat market prior to the new levy imposition in July 2012. The new levy caused U.S. market share to drop to 75 percent as importers moved towards cheaper supplies on the global market. The levy brought price increases for wheat and wheat-based products while wheat millers find it challenging to pass the rising wheat prices to consumers.

Despite domestic price increases Nigerian demand for wheat based products has remained strong due to higher prices and weak domestic supplies for other local staples. The U.S. has a strong reputation as a consistent and reliable supplier of high quality wheat, especially for HRW.

Market analysts also hold that over time consumers will insist on demanding more of the higher quality, wheat flour-based products, causing U.S. wheat to recapture its lost market share in the next few years.

**Stocks:**

Most flour mills in Nigeria are located at sea ports, where space for storage facilities is limited. Millers only have capacity to keep stocks to sustain milling operations for one month, a maximum of 250,000 tons. Industry sources estimate actual stock holdings are at an average of 200,000 tons.

**Policy:**
The Government of Nigeria (GON) initiated an Agriculture Transformation Agenda (ATA) to significantly increase production of five key crops (rice, cassava, sorghum, cocoa and cotton) and reduce food imports. Nigeria's climatic condition is unfavorable to large commercial wheat production.

The ATA seeks to cut food imports through the introduction of levies and proposition of import bans on essential staples on essential commodities such as rice, fish, etc. As part of the plan, the GON imposed import tax (levy) of 15 percent on wheat grain (increasing the effective duty from 5 percent to 20 percent). The government also introduced fiscal incentives to local industry to stimulate increased domestic production and processing of cassava.

The GON introduced a new policy compelling cassava flour inclusion in wheat flour beginning in 2012. Inclusion starts with a 10 percent cassava flour inclusion rate which is expected to increase steadily to 40 percent by 2015. Bakeries were to comply with the new requirements 18 months after the cassava inclusion policy introduced in July 2013. Some fiscal incentives, such as duty-free import of related equipment and machinery, were also introduced to make the policy attractive and easily attainable.

The policies are aimed at growing local agriculture, creating employment and saving the country foreign exchange. So far, there is no evidence that flour millers are complying with the GON's cassava inclusion requirement due to uncertainties within the industry over on product quality, cassava flour availability, and GON policy consistence. The bakers indicate they are not able to produce their usual bread products with such flour, while the wheat flour millers are still struggling with a one to three percent cassava flour inclusion to produce flours acceptable to the local bakers. Although enforcement for the inclusion policy appears somewhat subsided, the GON maintains that 40 percent cassava flour blend is achievable and has not expressing willingness to accommodate the millers and bakers.

The GON has also imposed a 65 percent levy in mid-2012 on wheat flour imports to bring the effective duty to 100 percent as part of this new policy. The GON earlier introduced a policy requiring wheat millers to fortify wheat flour with vitamin A. However, Nigeria does not import wheat flour.

Industry analysts' view is that if cassava inclusion into bread was actually feasible, Nigeria would still be unable to meet the cassava demand of the wheat flour milling industry due to the country's lack of adequate cassava production, poor existing infrastructure, and unstable agricultural and food processing policies that make investments hard to plan and execute.

**Marketing:**
U.S. Wheat Associates is active in Nigeria in providing training opportunities and trade servicing support for the Nigerian milling industry. They have a representative located in Lagos.

**Production, Supply and Demand Data Statistics:**

| Wheat Nigeria | 2012/2013 | | 2013/2014 | | 2014/2015 | |
|---|---|---|---|---|---|---|
| | Market Year Begin: Jul 2012 | | Market Year Begin: Jul 2013 | | Market Year Begin: Jul 2014 | |
| | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| **Area Harvested** | 80 | 80 | 85 | 70 | | 70 |
| **Beginning Stocks** | 200 | 200 | 200 | 200 | | 200 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Production** | 80 | 80 | 85 | 70 | | 70 |
| **MY Imports** | 4,140 | 4,140 | 4,200 | 4,215 | | 4,350 |
| **TY Imports** | 4,140 | 4,140 | 4,200 | 4,215 | | 4,300 |
| **TY Imp. from U.S.** | 2,998 | 3,000 | 0 | 3,010 | | 3,100 |
| **Total Supply** | 4,420 | 4,420 | 4,485 | 4,485 | | 4,620 |
| **MY Exports** | 250 | 250 | 450 | 450 | | 500 |
| **TY Exports** | 250 | 250 | 450 | 450 | | 500 |
| **Feed and Residual** | 100 | 100 | 50 | 50 | | 100 |
| **FSI Consumption** | 3,870 | 3,870 | 3,785 | 3,785 | | 3,820 |
| **Total Consumption** | 3,970 | 3,970 | 3,835 | 3,835 | | 3,920 |
| **Ending Stocks** | 200 | 200 | 200 | 200 | | 200 |
| **Total Distribution** | 4,420 | 4,420 | 4,485 | 4,485 | | 4,620 |
| | | | | | | |
| 1000 HA, 1000 MT, MT/HA | | | | | | |

**Commodities:**

Corn

**Production:**

Post estimates Nigeria's corn production in MY2013/14 at 7.7 million tons, up from 7.6 million tons in 2012/13. Corn is the most important cereal crop in Nigeria. It is widely produced across the country following the introduction of early and extra-early and medium maturing varieties that are tolerant to drought. These varieties are resistant to striga and Downey meldew diseases that are prevalent in the region. The major producing areas remain in the central region.

Corn is also one of the commodities promoted under the GON's ATA program tagged the Growth Enhancement Support Scheme (GES) and the e-wallet (http://www.ciuci.us/wp-content/uploads/2013/03/Growth-Enhancement-Support-Scheme.pdf). The prevailing high corn prices as well as improved availability of fertilizer under Nigeria's ATA encouraged farmers to expand cultivated land area for corn, resulting in some increases in 2013/2014.

However, many farmers reported that the inputs and other GON supports through the GES program were either grossly inadequate or were received late, contrary as announced in the media. They also indicated that only registered farmers benefited from the GON incentives whereas less than 20 percent of actual farmers were captured in the registration exercise, leaving out the majority of farmers. Many farmers that received improved seedlings under this program indicated that yields from much of the seedlings were far less than expected, resulting in significant losses.

The activities of the BH insurgency across much of Nigeria's corn producing area have also continued to cause many farmers to abandon their farms. This has impeded corn production and distribution across the country in 2013/2014. Bad roads, poorly maintained drainage and numerous road security check points also contribute to final product costs increasing by as much as 20 percent. The GON's recent levy hike on imported wheat has created further pressure on corn demand as less wheat is available for feed.

Despite the usual factors negatively impacting agricultural production and distribution in the country, corn harvests across West African countries were generally good this past year and have helped to significantly stabilize corn prices in Nigeria as a large quantity of corn were informally exported to Nigeria from other nearby West African countries. Analysts indicate that many farmers will shift to cultivating other crops the next year to be able to ascertain the quality of seeds and seedlings they will plant.

**Consumption:**

Corn has become indispensable for food security as well as becoming an industrial crop. Brewery demand for corn grits is growing in tandem with growth in the beer sectors. Feed utilization of corn is also increasing due to the steady growth in the poultry and aquaculture sectors witnessed in recent years. Approximately 95 percent of all feed produced in Nigeria is poultry feed. The total corn use for feed production in Nigeria is forecast at 1.8 million tons in 2013/14, up from 1.7 million tons in 2012/13. The corn crop is also used for direct human consumption as foods made from corn flour are staples within the Nigerian diet.

**Trade:**

Post forecasts Nigeria's corn exports at about 100,000 tons in MY2013/14. Nigeria's corn production is in high demand in neighboring Niger republic and among many food processors in both Nigeria and other countries in the region. This is so as Nigerian corn has higher starch content, important for food processing and other value additions.

Poultry production in the country is concentrated in southwestern Nigeria near major urban centers (Lagos and Ibadan), and imported corn into Lagos has a transportation cost advantage for the major poultry operations when compared with domestic supplies grown in the middle and northern regions. Domestic corn has to be transported by road from the north to the south at high cost. Poultry producers are often unable to get sufficient corn supplies from local sources. Some feed millers use wheat because of the lower duties and ease of importing in the past. But the recent GON measures increasing wheat costs are causing them to revert to corn.

Post has not been able to establish Nigeria's corn import figure accurately, as official statistics are unavailable and there is no reliable trade estimate. However, some major poultry farms have been able to successfully import corn from Brazil during mid-June 2013, which has assisted in stabilizing and lowering market costs.

Although priced higher than the local corn, poultry farmers and feed millers and feed millers purchase local corn during harvest season when prices are lower and supplies are on-hand. Poultry farmers buy imported corn during off-season when local corn becomes scarce and more expensive. Poultry farmers express satisfaction that availability of imported corn assures them of year round corn availability and helps them to stabilize domestic corn prices and plan their operations better. At present, the average price of corn at harvest time in Northern growing regions is 70,000 Naira per ton ($440), down from 80,000 Naira ($550) the same period last year.

**Stocks:**

The lack of adequate storage facilities remains a major problem with grain production in Nigeria. On average 30 percent of Nigeria's grain output is lost due to spoilage, contamination, attacks by insects and rodents, and physiological deterioration in storage (post-harvest losses). This high loss translates to loss of revenue for Nigeria's peasant farmers.

The GON's strategic grain reserve department says it lacks the funds to hold major stocks in national grain silos. Currently, of Nigeria's 1.0 mt grain reserve capacity, the country only stocks about 35,500 mt of grain, of which nearly 9,000 mt is in corn.

**Policy:**

The GON's import ban on corn was lifted in 2008 and imports are allowed at a 5 percent tariff. However, the status of the import ban removal on corn still seems uncertain to many potential importers. No Nigerian traders imported corn until mid-2013.

At the moment, only a few large and politically connected farms have been able to import maize. Industry sources disclose that this class of farmers broke the log-jam on corn importation with arguments that the flooding in Nigeria of 2012 destroyed corn farms and this resulted in limited domestic supplies. Although wary about the fluctuating exchange rate since 2013 and possible sudden policy change in customs, more farmer groups and commodity merchants are bringing in corn imports destined for poultry feed.

Imported corn is shipped bulk but they are bagged in 75kg and 100kg bags upon arrival at Nigerian terminals. Domestic corn and soybean prices averaged $400 per ton over the past three years. Current prices for corn produced locally average $365 per ton whereas the price for imported corn average $420 per ton. Domestic corn prices can increase to more than $600 per ton during off-season which creates uncertainties when planning poultry operations.

It remains uncertain whether corn importation will continue unhindered to create even availability throughout the year. Many stakeholders still fear that some powerful groups may mount pressure on the GON to revert to the earlier restrictions. As a result, many potential buyers continue to be cautious about placing corn orders at the moment.

**Production, Supply and Demand Data Statistics:**

| Corn Nigeria | 2011/2012 | | 2012/2013 | | 2013/2014 | |
|---|---|---|---|---|---|---|
| | Market Year Begin: Oct 2011 | | Market Year Begin: Oct 2012 | | Market Year Begin: Oct 2013 | |
| | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| Area Harvested | 5,150 | 5,150 | 4,160 | 4,160 | 4,250 | 4,250 |
| Beginning Stocks | 266 | 266 | 266 | 266 | 146 | 146 |
| Production | 9,250 | 9,250 | 7,630 | 7,630 | 7,700 | 7,700 |
| MY Imports | 100 | 100 | 100 | 100 | 100 | 100 |
| TY Imports | 100 | 100 | 100 | 100 | 100 | 100 |
| TY Imp. from U.S. | 26 | 20 | 0 | 0 | 0 | 0 |
| Total Supply | 9,616 | 9,616 | 7,996 | 7,996 | 7,946 | 7,946 |
| MY Exports | 100 | 100 | 50 | 50 | 100 | 100 |
| TY Exports | 100 | 100 | 50 | 50 | 100 | 100 |
| Feed and Residual | 1,700 | 1,700 | 1,700 | 1,700 | 1,800 | 1,800 |
| FSI Consumption | 7,550 | 7,550 | 6,100 | 6,100 | 5,900 | 5,900 |
| Total Consumption | 9,250 | 9,250 | 7,800 | 7,800 | 7,700 | 7,700 |
| Ending Stocks | 266 | 266 | 146 | 146 | 146 | 146 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Total Distribution** | 9,616 | 9,616 | 7,996 | 7,996 | 7,946 | 7,946 |
| | | | | | | |
| 1000 HA, 1000 MT, MT/HA | | | | | | |

**Commodities:**

Sorghum

**Production:**

Production is forecast up by about 10 percent to 6.5 million tons in 2013/2014 as compared with 5.9 million tons in the season of 2012/2013. Nigeria is the largest sorghum producer in West Africa, accounting for about 71 percent of the total regional sorghum output, 30-40 percent of total African production, and is the third largest world producer after the United States and India.

About 90 percent of sorghum produced by United States and India is utilized for animal feed production, leaving Nigeria as the world's leading food grain sorghum producer. Sorghum ranks third after corn and millet in term of cereal production in Nigeria and is the primary food crop across northern Nigeria.

Until the last few years, sorghum production and area harvested were declining. The decline was due mainly to growing demand for corn and soybeans. However, this trend has reversed as sorghum varieties were improved through the introduction of improved varieties and production practices. Crop yields increased some years earlier because of the growing acceptance by farmers of the improved varieties developed and introduced by local research institutes. This included two sorghum varieties bred by the International Crops Research Institute for Semi-Arid Tropics (INCRISAT), headquartered in India (http://www.icrisat.org/icrisat-hq.htm), which are higher yielding and earlier maturing.

The earlier maturing trait is especially attractive to farmers due to the erratic nature of the late-season rains in the main northern growing areas. Additionally, about 14 percent of Nigeria's sorghum producing areas was damaged during flooding in 2012. Insecurity in these areas is also high due to BH activities and is negatively affecting sorghum production and marketing. Adoption of improved varieties and hybrids remain slower than optimal as more farmers continue to source seeds through local market or by retaining seeds from the previous harvest. Improved varieties used for brewing are some of the most widely used, especially the SK5912, KSV8 and ICSV400 varieties.

**Consumption:**

Sorghum is a major food and industrial crop. Sorghum is the primary food crop in virtually all northern Nigeria, but demand from industry is the main drive behind increases in sorghum production. Sorghum is used extensively in brewing and industrial demand for sorghum for beer production is rising steadily, as beer demand rises.

Beer has been produced exclusively in Nigeria from sorghum and corn grits following a ban placed on barley and barley malt importation in the mid-1980s. The ban was lifted in 1999 but breweries still utilize sorghum and corn grits as the key raw materials. Sorghum use in poultry feed is limited by its high tannin content. Harvesting starts October/November, and sorghum price have ranged between \$350 and \$430 per metric ton, about 15-20 percent higher when compared with prices the same time in 2013.

Despite recording fairly good yields, the sorghum price is expected to hike in the coming years as demand grows. The GON signed a Memorandum of Understanding with an indigenous bio-fuel producer – Global Biofuels Limited for the construction of 15 integrated bio-fuel plants in Nigeria valued at $750 million that will use sorghum. The project is a collaborative project between Global Biofuels with indigenous research institutes in China, Brazil and India. It is an agro-based industrial activity involving the production of ethanol, biomass electric power and food using sorghum as the raw material. The pilot project, expected to be established in Nigeria's Ekiti State soon, is planned to be replicated in 14 sorghum growing states of the country. It will boost sorghum utilization as it uses everything of the plant but the grain.

Sorghum is also widely used in producing malt that the beverage industry uses to produce beverage drinks such as malt drinks and breakfast beverages. Also common are meal preparations from sorghum and other grains such as wheat, up to 2 percent for bread and up to 40 percent of sorghum content to produce noodles, macaroni, couscous, pancake breakfast buns, biscuits, etc. There are also fortified sorghum foods. Fortified foods are used mostly for the Home Grown School Feeding (HGSF) program and World Food Program (WFP) food aid programs in neighboring countries like Chad, Niger, Mali, etc

**Trade:**

The volume of international trade is very low (less than one percent) in comparison with domestic production which is used to meet the national demand. Some informal cross border trading in sorghum exists between Nigeria, Chad and Niger. Often the destinations are Chad and Niger, food deficit countries, but sorghum harvested around the border areas is sometimes sold in Nigeria when prices are right. There are no custom registration procedures at the borders but several hundred thousand tons of cereal (including millet, maize, sorghum, etc.), cross the border each year, mostly through the Kano-Katsina-Maradi corridor.

Nigeria does not formally import sorghum at the moment. However, market opportunities exist for import of sorghum by breweries located in southern Nigeria. Market opportunities also exist in Nigeria for U.S. tannin-free sorghum for feed use.

**Policy:**

The ban on sorghum exports was removed in 2011 while the import ban on sorghum was removed in 2008, nearing the tariff at 5 percent. Large demand by Nigerian breweries creates market opportunities for sorghum imports. The GON is also encouraging the utilization of sorghum to produce nutritious fortified foods, typically blended with soybeans for school feeding programs, and used by the World Food Program food aid programs for Chad, Niger, Mali and Benin.

**Marketing:**

Following the lifting of the import ban on sorghum in 2008, the U.S. Grains Council has been active in exploring market opportunities with breweries and feed millers in Nigeria.

**Production, Supply and Demand Data Statistics:**

| Sorghum Nigeria | 2012/2013 | | 2013/2014 | | 2014/2015 | |
|---|---|---|---|---|---|---|
| | Market Year Begin: Oct 2012 | | Market Year Begin: Oct 2013 | | Market Year Begin: Oct 2014 | |
| | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Area Harvested** | 4,773 | 4,773 | 5,000 | 5,000 | | 5,500 |
| **Beginning Stocks** | 215 | 215 | 208 | 208 | | 220 |
| **Production** | 5,943 | 6,493 | 6,500 | 6,592 | | 6,700 |
| **MY Imports** | 0 | 0 | 0 | 0 | | 0 |
| **TY Imports** | 0 | 0 | 0 | 0 | | 0 |
| **TY Imp. from U.S.** | 0 | 0 | 0 | 0 | | 0 |
| **Total Supply** | 6,158 | 6,708 | 6,708 | 6,800 | | 6,920 |
| **MY Exports** | 0 | 50 | 50 | 50 | | 100 |
| **TY Exports** | 0 | 50 | 50 | 50 | | 100 |
| **Feed and Residual** | 200 | 150 | 150 | 150 | | 150 |
| **FSI Consumption** | 5,750 | 6,300 | 6,300 | 6,380 | | 6,450 |
| **Total Consumption** | 5,950 | 6,450 | 6,450 | 6,530 | | 6,600 |
| **Ending Stocks** | 208 | 208 | 208 | 220 | | 220 |
| **Total Distribution** | 6,158 | 6,708 | 6,708 | 6,800 | | 6,920 |
| | | | | | | |
| 1000 HA, 1000 MT, MT/HA | | | | | | |

## Commodities:

Rice, Milled

## Production:

Nigeria's milled rice production in MY2013/14 is forecast at 2.8 million tons, up from a revised 2.4 million tons in 2012/13. However, industry analysts indicate the figure will drop to below 2.6 million tons by MY2014/2015.

The GON's ATA listed rice as one of the five commodities to attract special focus to increase production. This initiative also involves the promotion of the New Rice for Africa (NERICA) variety. This variety is resistant to the African Rice Gaul Midge disease and is higher yielding than existing varieties. The GON also targets becoming 100 percent self-sufficient by expanding production up to 3.0 million tons by the end of 2015 when it will place a total ban on rice imports.

With the assistance of $1.25 billion in funding from China's Exim Bank to construct 100 mills across rice producing areas of the country, the GON has imposed levies on imported rice and initiated some incentives to promote local production. A number of the major rice importers in Nigeria have invested in milling capacity across the country in response to GON policy changes. However, farmers and other industry groups contend that the GON support efforts are only reaching a few big, politically-connected farmers, resulting in a relatively marginal result. Actions to achieve rice production increases are also either inadequate or they do not get to most of the targeted farmers.

Industry analysts also believe that Nigeria's position as one of the world's largest importers of rice will not suddenly reverse in the short term or by 2015. Low private sector participation in the rice sector value chain certainly cannot fund such a large production jump. A lack of general infrastructure, including inadequate electricity, poor roads, and limited or nearly non-existing access to finance for the majority small-scale farmers, all combine to restrict production of local rice from becoming economically competitive with imported rice prices. Domestic rice prices retain a 20-30 percent premium over the prices for imported rice, except for rice sold locally within the rice-producing communities.

Informal cross-border trade in rice has risen dramatically since the levy increases and the rice coming in is from mostly India, Thailand and Brazil. The GON lacks both resources to police its borders effectively and the political will to do so, as rice is an important vote-buying tool during elections. Nigeria has an important national election in early 2015. At the moment, the GON efforts are more directed at electioneering campaigns than rice entry control, while investors in local rice production see rice imports as a way of recovering some part of their recent investment in domestic rice production and milling in Nigerian market.

**Consumption:**
Nigeria consumes nearly 6 million tons of rice annually and more than half of this (3 million tons) is imported parboiled rice. Rice has become a regular item in the Nigerian diet, largely because of the convenience it provides and the variety of ways it can be prepared. Imported parboiled rice meets consumer demand in urban areas where incomes are highest, while locally milled rice is consumed mainly in the rice-producing rural areas.

Nigeria's upcoming election in 2015 will increase rice demand and imports figures are projected at 3 million tons during MY 2013/2014 are expected to climb to 3.5 million tons in MY2014/2015. Historically, Nigerian politicians tend to build goodwill and earn more votes by making donations of money and foods mostly rice (rice is Nigeria's favorite staple) to the poor who are the predominant voters in the country's general elections. Additionally, a diversion of attention towards electioneering campaigns/activities will result in weakened anti-smuggling enforcement at the borders and duty waiver arrangements on rice imports for agents of the ruling political parties may come into play as well.

Population growth, urbanization and rising incomes drive expanding rice consumption in Nigeria. Urban consumers prefer long grain, polished and de-stoned imported rice over local varieties. Imported parboiled rice also competes effectively against other basic food staples. This also explains the reason import volumes have remained large and will continue to be so for a long time.

**Trade:**
Nigeria's import of polished/milled rice was estimated at 2.6 million tons in TY2012/13, a drop by 200,000 metric tons as compared with the import figure for TY2011/2012. This was an immediate response to hike in imported rice price caused by the GON's actions imposing additional levies twice within year 2012 in order to cut rice imports and increase production and consumption of local rice.

However, this has reversed and the volume of imported rice entering the market has grown higher as imported rice are available and still sell at lower prices than rice produced in Nigeria. Nigerians also generally prefer parboiled long grain, polished and de-stoned imported rice over local varieties and have continued to feed on imported rice that enter the market through increased cross border informal rice trade. There is also inadequate infrastructure to produce and bring local rice to markets in urban areas at competitive prices when compared with imported rice entering the market through informal cross border trade. These are part of the reason local rice continues to cost more when compared with imported rice. Nigeria's domestic staple crop alternatives such as yam, cowpea, and corn which are also in short supply and cost more than imported rice in years past.

India's removal of its export ban on non-basmati rice also contributed as the return to the market of the cheaper Indian rice created a major buzz among importers. The bulk of Nigerian rice imports used to come from Thailand followed by India. This pattern has changed and India is now the leading supplier. Post has also observed an increased presence of Brazilian and Chinese rice in the Nigerian market. U.S. rice is highly priced and not competitive in the Nigerian market.

**Policy:**

The GON initiated policy changes through the ATA to promote agricultural investment, especially in agricultural infrastructure, in order to attract foreign investor capital to increase local rice production. The GON also introduced new levies for rice which brought in a 30 percent levy on imported brown rice and a 100 percent levy on imported polished/milled rice, since January 1, 2012. Combined with the existing 10 percent tariff on each of the products, the effective duty rose to 40 and 110 percent on imported brown and polished/milled rice, respectively. The GON has also indicated that rice imports will be banned by 2015.

In order to reduce cross-border informal trade and evasion of duty payments, the GON also restricted rice importation to the sea ports and prohibited the importation of rice over land borders. However, this continues to occur. Imported parboiled rice remains available in both the rural and urban markets across Nigeria.

The new rice tariff increased informal cross border trade by redirecting more than 90 percent of rice exports to Nigeria through the neighboring countries such as Benin, Cameroon and Niger in 50 kg and 25 kg bags. Post investigated Nigeria and Benin cross border informal rice trade since the tariff introduction. Part of the findings was that on the Benin side, a bag of 50kg rice from India costing an average $38 per 50kg bag sells for a $67 market price in Nigeria. The average price of Thai rice in Benin is $45 per 50kg bag, as compared to $78 in Nigeria.

To evade high tariffs and sell imported rice at affordable prices, Nigerian importers now ship their rice consignments largely to the more efficient ports in neighboring countries, particularly Benin and some to Cameroon, where they are cleared and moved into the Nigerian market through informal trading activities. This is forcing local rice farmers and processors out of operations and brought an outcry by the Rice Millers Importers and Distributors Association of Nigeria (RiMIDAN) and other stakeholders in Nigeria's rice sector during the last quarter of 2013.

Nigeria's Finance Minister Ngozi Okonjo-Iweala in a program organized by her Ministry to review the 2014 budget in November 2013 announced that the GON would restructure the tariff rate in a way that it would discourage informal cross-border rice trade by the beginning of 2014. According to her, “We increased the tariff to110 per cent, and it encouraged some people to go and grow rice and we grew 1.1 million metric tonnes of the product. But it also encouraged smuggling by neighboring countries because they immediately dropped their own tariffs to 10 per cent,” she said. She further said, “For rice, we decided to bring it (the hiked tariff) down because we see that it is not working.” The GON that month approved a 67 percent duty reduction on legally imported rice from the earlier $570 per ton (reflecting 110 percent duty) to $190 per ton (closer to Benin's duties of $200 per ton) to take effects within two months in order to reduce smuggled rice entering into the country through the Benin border.

According to Mr. Shaibu Mohammed, the Secretary General of RiMIDAN, many RiMIDAN members had ordered rice (about 20 vessels) following the GON’s agreement to lower the import duties to the level indicated above. The loaded vessels have reached the shores of Nigeria but are not allowed to enter by Nigeria’s customs as they (the customs) insist applying the higher duties. They are stranded at the sea waiting for the GON to abide by its decision to implement the new reduced duty. At the moment, the new hiked tariff remains in place on imported rice and Nigerian consumers almost entirely on imported rice entering the market through informal cross-border routes. Nigeria’s major news media also reported the the frustrated of Mr. Mohammed Abubakar, the Chairman of RiMIDAN over GON’s delay in keeping with the agreement to reduce rice tariffs said that the continued inaction will create lack of confidence in the present administration (referring to GON), as “We all agreed at the meeting to introduce palliative duty and incentive in the sector to reduce smuggling of rice. Somewhere along the line someone is holding the entire nation to ransom. We urged Mr. President, as a listening leader to intervene in the issue. Quote me anywhere, smuggling is not only affecting the farmer but it is rather killing them”.

The RIMIDAN also reported that less than 100,000 tons of rice was legally imported into Nigeria in 2013, following the duty hike, whereas nearly 3 million tons entered illegally through informal cross-border rice trade that year. This represents about $2 billion revenue lost from import duties through informal trade. Market analysts argue that the GON should rather comply with the regional ECOWAS CET tariff structure (http://www.aidfortrade.ecowas.int/programmes/ecowas-common-external-tariff-cet) to gain import duty revenue on legitimate trade that could be applied towards developing the domestic rice sector. Continuing with the current import-substitution regime means the loss of major revenues to cross-border traders and corrupt officials.

In an earlier report on this, Nigeria’s Agriculture Minister, Dr Akinwumi Adesina disclosed in a recent Press interview (Nigeria’s Daily Independent newspaper, December 9, 2013) that the GON plans to reduce rice import tariffs for local rice farmers and dealers who import the commodity on a small scale to make up for their shortfalls in 2014. According to the Minister, the reduction in rice tariff for those groups of people will serve as an incentive for more local investment.

Quoting Minister Adesina from the press interview reported in the Independent newspaper on December, 9, 2013: "We are trying to extricate Nigeria from a dependency on imported rice. A lot of the rice in the country today is 15 years old rice, that is loaded with all kinds of chemicals, but our local rice is fresher, healthier, maybe a little bit more expensive today". He argued that “the imported rice could be sold a lot cheaper because it is junk. If I am selling you junk, I can sell it for nothing. If I am selling 15 years old rice, it is almost like selling livestock feeds, so Nigerians should be patient with us; we are doing the right thing". Later, the Minister stated that Dominion Farms (originally from Oklahoma City, USA) partnered with Taraba State in Nigeria to invest in a $40-million rice production project on 30,000 hectares and the products from this farm alone will replace over 15 per cent of all the rice being imported by the end of 2014. Post has heard that this investment has encountered multiple start-up challenges and have yet to plant.

At the moment, Post is not aware of any measures the GON has put in place to check the increasing rice movements across the border routes. It is very unlikely that the GON's recent efforts to boost domestic production will significantly affect imports in the near-term. Industry analysts also report that Nigeria's rice self-sufficiency debate has been around for a long time, yet Nigeria remains one of the leading importers of rice today. The analysts comment that Nigeria's rice policies are obviously very important but the policies should be workable and sustainable by making Nigeria's rice globally competitive.

Nigeria's infrastructural and security challenges will need to be overcome so as to permit local rice to reach the urban markets at lower, more competitive prices. However, development analysts report that it will take Nigeria far beyond 2015 to address the infrastructural challenges and poor policy implementation which mostly account for the country's low-level of local rice production.

**Production, Supply and Demand Data Statistics:**

| Rice, Milled Nigeria | 2012/2013 | | 2013/2014 | | 2014/2015 | |
|---|---|---|---|---|---|---|
| | Market Year Begin: Oct 2012 | | Market Year Begin: Oct 2013 | | Market Year Begin: Oct 2014 | |
| | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| **Area Harvested** | 2,000 | 1,575 | 2,500 | 2,500 | | 2,300 |
| **Beginning Stocks** | 1,015 | 1,015 | 885 | 885 | | 657 |
| **Milled Production** | 2,370 | 2,370 | 2,772 | 2,772 | | 2,550 |
| **Rough Production** | 3,762 | 3,762 | 4,400 | 4,400 | | 4,048 |
| **Milling Rate (.9999)** | 6,300 | 6,300 | 6,300 | 6,300 | | 6,300 |
| **MY Imports** | 2,900 | 2,500 | 3,000 | 3,000 | | 3,500 |
| **TY Imports** | 2,600 | 2,600 | 3,000 | 3,000 | | 3,500 |
| **TY Imp. from U.S.** | 0 | 12 | 0 | 10 | | 15 |
| **Total Supply** | 6,285 | 5,885 | 6,657 | 6,657 | | 6,707 |
| **MY Exports** | 0 | 0 | 0 | 0 | | 0 |
| **TY Exports** | 0 | 0 | 0 | 0 | | 0 |
| **Consumption and Residual** | 5,400 | 5,000 | 6,000 | 6,000 | | 6,100 |
| **Ending Stocks** | 885 | 885 | 657 | 657 | | 607 |
| **Total Distribution** | 6,285 | 5,885 | 6,657 | 6,657 | | 6,707 |
| | | | | | | |
| 1000 HA, 1000 MT, MT/HA | | | | | | |