Agriculture is the principal source of food and livelihood in Nigeria, and employs nearly three-quarters of the nation’s work force. Over the past two decades, agricultural yields have stayed the same or declined. Although there has been a recent rise in agricultural productivity, it is derived more from expanded planting areas for staple crops than from yield increases. Increasing and sustaining agricultural productivity should be a critical component of programs that seek to reduce poverty and attain food security in Nigeria.

This brief presents sector-wide and commodity-specific constraints to increasing agricultural productivity in Nigeria.

**Sector-wide Constraints**

Available research results and literature have identified a number of sector-wide constraints to increasing agricultural productivity in Nigeria. These include: poor agricultural pricing policies, low fertilizer use, low access to agricultural credit, land tenure insecurity, land degradation, poverty and gender issues, low and unstable investment in agricultural research, and poor market access and marketing efficiency.

**Poor Agricultural Pricing and Low Fertilizer Use**

Fertilizer use is promoted mainly by the fertilizer subsidy policy in Nigeria. Input subsidies have been a part of Nigeria’s agricultural price policy since independence, and in spite of economic reforms in Nigeria, fertilizer subsidies have remained. In addition, under these sustained and high input subsidy programs, investments in core public goods such as research and extension, which also aim to boost productivity, are limited. Although improved crop varieties exist, low fertilizer use is a serious constraint to agricultural productivity growth, averaging 10 to 15 kilograms per hectare. An important factor is low and unstable domestic production. There has been no domestic production of fertilizer since the early 2000s, because NAFCON, the dominant fertilizer producer in Nigeria, has been shut down. Other issues which affect domestic supply of fertilizers include high transport costs from port to inland destinations, poor distribution infrastructure, the absence of capital for private sector participation in distribution, significant business risks facing fertilizer importers, and inconsistencies in government policies.

**Low Access to Agricultural Credit**

Access to agricultural credit has been positively linked to agricultural productivity in several studies. Yet this vital input has eluded smallholder farmers in Nigeria. Banks with large loan funds are generally difficult for smallholder farmers to access. Problems with collateral and high interest rates appear to frequently screen out most potential rural
smallholder beneficiaries. In addition, agricultural loans are often short-term with fixed repayment periods, a loan structure that is not suitable for annual cropping or livestock production.

**Land Tenure Insecurity and Land Degradation**
An important institutional constraint is the absence of a clear title to land. Group ownership of land in Nigeria has been associated with such problems as limited tenure security, restrictions on farmers’ mobility, and the inevitable fragmentation of holdings among future heirs. It may also limit access to formal credit, since the farmer cannot use land as collateral. This reduces incentives to invest in land quality maintenance or improvement. Because poor farmers cannot afford alternative farmlands, and do not have customary access to lands not inherited, they remain on depleted lands and further degrade these resources. Thus, poverty and custom may constrain farmers’ ability and willingness to mitigate land degradation, leading to declining productivity.

Land degradation, particularly due to soil fertility depletion and soil erosion, is a serious constraint to agricultural productivity in much of Nigeria. According to the Global Assessment of Soil Degradation (GLASOD), more than one-fourth of the agricultural land in Nigeria is severely degraded, with most of this very severely degraded, meaning major and irreversible losses in productivity. In situations where technology is affordable, poor knowledge may lead to over use of agrochemicals such as fertilizers, which may precipitate environmental problems. But of immediate concern today in Nigeria is under usage of fertilizers as a result of high costs. Land degradation has been manifested in soil erosion, especially the southeast zone; desertification due to deforestation, mainly in the northeast and northwest zones; and oil spillage, especially in the oil producing states. In addition, shorter fallow periods, especially around homesteads, have resulted in low soil fertility.

**Poverty and Gender Issues**
Poverty is a constraint to agricultural productivity. When farmers cannot afford yield-enhancing inputs, low productivity and food insecurity can follow. Gender imbalances also constrain productivity. In spite of their significant role in agricultural production in many parts of Nigeria, women have varying and relatively limited rights to farmland, and lower access to extension services and credit. These constraints limit their agricultural productivity.

**Low and Unstable Investment in Agricultural Research**
When research is poorly funded, agricultural technologies cannot be improved, and there will be no downstream farm income increase, rural employment generation, reduction in food prices, establishment of agro-based industries, and economic growth. In short, the absence of new technologies in agriculture will slow the growth of agricultural productivity and the reduction of rural poverty.

Public research and development (R&D) spending in Nigeria has been low and unstable since independence, and the government budget process for funding agricultural research is complex. The time between the submission of planned budgets by research agencies and the approval and release of funds is lengthy and often out of tune with research work plans. The approved amounts and the disbursement processes very often fall far short of the planned budgets of the research agencies. Private sector involvement in agricultural research has remained negligible to date.

**Poor Market Access and Marketing Efficiency**
Agricultural marketing efficiency in Nigeria is dismally low. Transport costs are high due to poor road conditions, limiting access to inputs, credit, and output markets, and reducing the transmission of key market information.
Commodity-specific Constraints

Staple Crop Constraints

Three of the leading staple food crops in Nigeria are cassava, maize and rice. Several improved varieties of these commodities have been released through years of on-station and adaptive research. Most of the varieties released, however, have multiplication problems. Contract growers (also called outgrowers) are often denied good prices for the resulting harvests at the end of the growing season, which in turn discourages future farmer participation. In addition, while many of the varieties are high yielding, they score low on other parameters such as resistance to drought, pests, and disease; and early maturity. On-farm costs of producing these crops are still very high at the small scale level in Nigeria. Agrochemicals are largely imported at prohibitive costs. Thus, fertilizers and insecticides are rarely applied to recommended levels.

Making food available goes beyond increasing on-farm production to include year-round storage and processing. Due to a combination of low productivity and post harvest losses, year-round grain availability is low in Nigeria. Grains in storage are partially lost to storage pests and diseases. It has been estimated that 10 percent of the total production of grains and 20 percent of the total production of tubers are lost or wasted annually to poor or non-storage. There are also everyday challenges faced by the various levels of tuber and grain processing. Medium to large scale processors face problems such as inadequate equipment and fabricators. Problems that cut across all processors include unstable market conditions, unstable government trade policies and difficulty sustaining the supply of raw materials to processors.

Livestock Production Constraints

The constraints to livestock production in Nigeria include biological limitations of the indigenous breeds of animals, unavailability of production inputs such as feed, water and good quality pasture year-round, lack of effective veterinary services, and unavailability of vaccines and veterinary drugs at reasonable costs.

Non-grazing livestock depend on compounded feeds, which are affected by seasonality and the cost of raw feed materials. The pastoral system relies on natural rangeland for ruminant feeding. However, the expansion of cropping activities has reduced available water and grazing resources, leading in turn to conflicts among pastoralists, fishermen and farmers.

With 90 percent of the national livestock herd under traditional management, genetic factors seriously limit livestock productivity in Nigeria. The absence of a grandparent stock and the collapse of the livestock breeding and multiplication programs have reduced high-quality livestock production. Public veterinary services have declined and livestock diseases account for 30 to 40 percent of the productivity losses.

The specific constraints in livestock marketing and processing in Nigeria include poor packaging facilities for products in the value chains, lack of cold storage facilities in abattoirs at wholesale and retail markets, and the absence of standards for meat and other livestock and poultry products.

Policy Recommendations

In order to ensure sustained and increased inflow of investment into Nigerian agriculture, agricultural policies must endure and even outlive the governments that formulated them. The practice of changing macroeconomic policies by successive federal governments is inimical to long-term investments in agriculture.

The practice of contract arrangements between outgrowers and private companies needs to be strengthened, since it has been difficult to promote and enforce contract details between any of the tiers of government and small farmers. Fertilizer subsidy programs in Nigeria need to be market responsive. Specifically, input subsidy programs should be used to develop competitive private sector-led input markets, not weaken them. Such programs should be targeted to poor farmers who,
without subsidies, would not adopt key inputs. They should complement, not undermine, commercial sale outlets, and they should be limited in duration, that is, accompanied from the start with a phase-out schedule. The current drive towards improved access of women to farmland, extension services, and related farm inputs should be sustained, with the active support of local community-based organizations and international development agencies. Loan terms must flexibly relate to cash flows, the input demand and supply structure, and computable business risks. The federal government’s agricultural credit guarantee scheme, which seeks to guarantee various cadres of loans to farmers, needs to be strengthened in order to reawaken commercial banks’ confidence in the scheme.

To achieve the desired impact of research funding on agricultural productivity in Nigeria, improved private investments in agricultural R&D must be encouraged. Also, greater transparency and timeliness are needed in the budgeting, approval, and fund release processes for agricultural research. The Land Use Act of 1978, which was abused through arbitrary seizure of communal lands, should be reviewed. Communal ownership of farm land will be difficult to dismantle in the foreseeable future; however, the elements which appear to differ among communities need to be reviewed within the context of each community, towards improved title of individuals to farmland, bearing in mind the need for gender equity.