

Challenges and Prospects of Agriculture in Nigeria: The Way Forward

Oni Timothy Olukunle*

Nigerian Institute of Social and Economic Research (NISER), P.M.B.5, U.I. Post Office
Ojoo, Oyo Road, Ibadan, Oyo State, Nigeria.

* E-mail of the corresponding author: onikunle2012@ymail.com

Abstract

Over the past three decades, Nigerian government had initiated a plethora of policies and programmes which were aimed at restoring agricultural sector to its pride of place in the economy. However various efforts at promoting investment and export diversification in the agricultural sector have not yielded appreciable dividend. Enormous investment and export diversification potentials for generating higher growth in the economy have remained unlocked and unexploited in the agriculture due to a host of constraining factors that must be removed. Therefore, the paper identified the constraints and proffered policy prescriptions to be implemented to remove them so as to fast track the attainment of poverty reduction and rapid economic development in the country. The identified constraints included marketing problem, infrastructure inadequacies, and unstable input and output prices. Policy actions for removing the constraints must include improvement in downstream commodity activities, environmental management, increased funding and efficiency in agricultural spending. Government must invest heavily in rural infrastructure and such investment must ensure development of infrastructure in the rural area.

Keywords: constraints, prospects, agriculture, development, investment.

1. Introduction

Agricultural development is considered to hold the key to economic development for most Sub-Saharan countries including Nigeria. In Nigeria, there are several sectors that contribute to the total output of the economy. In practice, these are grouped into four major sectors, namely agricultural, manufacturing, oil/petroleum, and services. The agricultural sector is further disaggregated into crop production, livestock, forestry and fishing. Table 1.1 indicates five-year average contribution of each sector to GDP over the period 1981-2011. From the historical record, agriculture remained the highest contributor to the GDP with an average of 40.1 percent over the entire period. Agricultural sector was followed closely by the services sector with a combined contribution of 38.1 per cent, out of which the private services sub-sector accounted for about 29.0 percent. The petroleum sector was in the third position with an average contribution of 14.2 per cent, in spite of its being the largest source of public revenue and foreign exchange earnings for the country. This suggests the relatively low linkage of the petroleum sector with other sectors of the economy. The foregoing indicates that in Nigeria, agriculture is pivotal to economic development and more of the efforts to revive the economy, and reduce significantly the level of poverty, should be devoted to revamping meaningfully the agricultural sector.

In the past, agricultural activities and foreign trade have driven growth performance of the economy. During the pre-independence era, the Nigerian government was able to execute investment projects through earnings from agricultural product exports. In the 1940s and 1950s, Nigeria's agricultural export commodities contributed over 75 per cent of the total annual merchandise exports (Ekpo and Egwaikhide 1994; Oyejide 1998; Okoruwa et al 2003). During this period, agricultural products dominated Nigeria's non-oil export trade accounting for nearly 70 percent of the value of non-oil exports. Agricultural export commodities such as cocoa, rubber, cotton, palm oil, palm kernel, groundnut and coffee played a prominent role in economic development by providing the needed foreign exchange for capital development projects. Thus, the agricultural export commodities, constituted the main export trade basket of the colonial period.

Nevertheless, introduction of petroleum into the nation's export trade had changed the composition and structure of the export trade. The oil sector, which initially contributed modestly to the economy in the 1960s, became more important in the 1970s and it is now overwhelmingly important to the point of the economy becoming over-dependent on it, providing about 95 per cent of foreign exchange earnings, as well as 65 per cent of budgetary revenues (CBN 2010). Governments have, over the decades, initiated numerous policies and programs aimed at restoring the agricultural sector to its pride of place in the economy. Various efforts at promoting investment and export diversification in agricultural sector have not yielded appreciable dividend. The relative share of the agricultural sector in foreign exchange earnings had declined from an average of about 11 per cent in the 1970-75 sub-period to average of about 2 per cent in the 1991-95 sub-period (CBN 2003). The efforts to reverse the trend seem to be yielding very limited results, as oil continues to dominate the country's exports while agricultural exports share of Nigeria's total exports remained under 5 percent for most years since the introduction of Structural Adjustment Programme (Oni 2007).

In spite of enormous efforts by the government to reposition agriculture to its prime of place of providing food for the human consumption and raw materials for industrial needs, as well as generating foreign exchange earnings, and employment for the population, the rate of capacity utilization by agro-allied industry in the country has been declining partly because of irregular and inadequate supply of raw materials. Linkage of agricultural sector to the industry has been very weak. It is imperative for the country to maintain equilibrium between raw materials requirements of industries, human consumption needs and capacity of agriculture to supply the raw materials. The National Economic Empowerment and Development Strategy (NEEDS) had emphasized the need for the country to reduce over-dependence on export of petroleum product for its foreign exchange earnings. The emphasis was due to the fact that petroleum is a non-renewable product. In order to broaden the sources of foreign exchange earnings it is necessary to diversify away from petroleum products into non-oil products such as agricultural export products

From the perspective of sustainable agricultural growth and development in Nigeria, one of the fundamental constraints is the peasant nature of the production system, with its low productivity, poor response to technology adoption strategies and poor returns on investment. It is recognized that agricultural commercialization and investment are the key strategies for promoting accelerated modernization, sustainable growth and development and, hence, poverty reduction in the sector. However, to attract investment into agriculture, it is imperative that those constraints inhibiting the performance of the sector are first identified with a view to unlocking them and creating a conducive investment climate in the sector. The development challenges of Nigeria's agriculture are, therefore, those of properly identifying and classifying the growth and development constraints of the sector, unlocking them and then evolving appropriate strategies for promoting accelerated commercialization and investment in the sector such that, in the final analysis, agriculture will become one of the most important growth points in the economy.

Generally, agricultural products have been recognized to have domestic food and industrial value and great export potential because they can provide food for the entire population and income to farmers as well as many economic agents involved in marketing of agricultural products. They serve as major source of raw materials for industry as well as major source of non-oil foreign exchange earning for the nation. Significant growth potentials in agricultural products can be exploited. The potentials include generating growth in export earnings through increased cultivation of crops, generating increased income for labour and entrepreneur who are engaged in small scale industries as well as large scale agro-based industries that make use of agricultural products as raw materials. In addition, the manufacture of food items like vegetable oil and fats, majority of which are currently imported can be obtained from industrial processing of agricultural commodities. Opportunities also exist to substitute traditional grains with cassava in agro-industry instead of wheat. In view of the investment and export diversification potential of agricultural commodities that has not been fully exploited, some questions may be asked. What are the constraints to agricultural development in Nigeria? What policy strategies should be implemented to improve performance of agriculture? Thus this paper assesses the challenges and potentials of agriculture in Nigeria with a view to provide policy recommendations to accelerate performance of agriculture.

The remaining section of the paper is structured as follows. Section two presents the Methodology used. Section three discusses the challenges inhibiting agricultural performance in Nigeria. The potentials of agriculture that should attract private investment are presented in section four while the paper is rounded off in section five with policy implications and suggested strategies for achieving the development goals of the agricultural sector of the economy.

2. Methodology

The paper was culled from unpublished doctoral degree research work by the author. Data were obtained mainly from secondary sources. These included publications of the Central Bank of Nigeria such as various issues of Statistical Bulletin, and Annual Reports and Statement of Accounts. Publication of National Bureau of Statistics such as Annual Abstracts of Statistics also provided useful data. The types of secondary data collected included average prices of major farm inputs such as hoe, sprayer, tractor services, fuel, fertilizer, agrochemicals, imports of agrochemicals, and average capacity utilization rates in agro-industry in Nigeria. The data were analyzed using descriptive statistics such as averages and growth rates. The analyzed data were presented in tables for ease of understanding.

3. Development Challenges in Nigerian Agriculture

Identification of the development constraints in the agricultural sector is a necessary step to unlock the factors inhibiting performance of the sector toward designing policy strategies that would create conducive climate for promoting accelerated commercialization and growth of the sector. In this connection, the following factors are very important.

3.1 Marketing Problem

Marketing involves getting the agricultural products from the farmers to the consumers. It helps to enlarge production by stimulating consumption, expanding the agro-industry and facilitating industrial growth. For the marketing to play an essential role in increasing agricultural production, the following five basic elements are necessary.

- 1 Transportation for moving the products from where they are produced to where they are consumed. An efficient network of road is imperative. The majority of Nigerian rural roads are in very deplorable conditions.
- 2 Safe and efficient storage system to ensure continuous supply of agricultural commodities in the market. This is very inadequate and ineffective.
- 3 Financing for the marketing to ensure prompt payment to the farmers as they deliver goods for sale.
- 4 Processing system that stimulates production by furnishing a continuous outlet for the farmers to produce over a long period of time.
- 5 The marketing system also requires a functioning and dynamic information system in which both the buyers and sellers are linked together.

Regrettably, the state of development of market information in the country is still primitive. Improved storage techniques that have been developed by relevant research institute have remained unadopted and sometimes unknown to farmers. Heavy post harvest losses occur due to inadequate storage facilities, especially in times of bumper harvests.

3.2 Storage and Processing

The lack of adequate storage and processing facilities accounts for divergence between national food security and household food security. Even if the total production of food seems adequate at the aggregate level, it will not lead to significant improvement in food security unless the food is available for consumption at the right time and in the right form. Whereas food must be consumed on a daily basis, production has a different specific time profile. Storage and processing are critical in ensuring that the commodities produced at a particular period are available for consumption whenever and wherever they are required. A significant quantity of products harvested in Nigeria perishes due to lack of storage and processing facilities. Simple, efficient, and cost effective technologies for perishables, such as roots, tubers, fruits and vegetables, are not as highly developed in the country compared to the storage technologies for cereal grains and legumes. Consequently, post-harvest food storage losses are very high, approximately 40 per cent for perishables, compared to cereal grains and pulses at about 15 percent. Traditional storage facilities have certain deficiencies, including a low elevated base giving easy access to rodents, wooden floors that termites could attack, weak supporting structures that are not moisture-proof, and inadequate loading and unloading facilities. Across geo-ecological zones, most farmers store only a portion of their crops for consumption. They sell part of their crop early to get cash to pay for their immediate financial obligations, including, in some instances, repaying the production loan to the middlemen.

3.3 Infrastructural Inadequacies

Infrastructure in this instance is construed to include physical infrastructure, such as roads and railway system, educational and health facilities, social services such as potable water and electricity and communication system. Agricultural performance in Nigeria is greatly impaired by the low level of development of infrastructure. In the rural areas where majority of the smallholders operate, inadequate infrastructure constitutes a major constraint to agricultural investment, production and trade. In many parts of the country physical and marketing infrastructure is poorly developed, storage facilities are rudimentary and access to information and markets is highly restricted. The situation represents the urban bias in the pattern of development in the country. Infrastructure inadequacy is mirrored by restricted access to the markets, which limit the availability of agricultural products in many areas, and reduces farmers' income. The Infrastructure constraint has persisted due to government neglect, poor governance, poor political leadership, poor maintenance culture and poor funding. In terms of road facilities, the efforts of the Agricultural Development Programmes, the Directorate of Foods, Roads and Rural Infrastructure, the National Agricultural Land Development Authority and the Petroleum Trust Fund have not been sustained to ensure good road networks in the rural areas where the bulk of agricultural activities take place. In addition, the railway system that is expected to provide relief has been comatose for years thereby restricting the movement of agricultural inputs and outputs to the road transport system. The constructed roads do not often last for more than three to five years before they start to crumble due partly to poor maintenance culture. As regards educational and health facilities, these are largely urban-biased. Supply of potable water has not been adequate for a majority of rural dwellers. Electricity supply is often epileptic and communication system is still poor. Although recent expansion of the Global System of Mobile Communication (GSM) infrastructure and Internet services has improved the communication situation somewhat, the services are urban-biased and too expensive for the average people.

3.4 Unstable Input and Output Prices

Generally, a major problem inhibiting investment in agriculture is the escalating cost of major farm inputs as

reflected by data in Table 3.4.1. Average prices of major farm inputs such as hoe, machet, sprayer, tractor, and agrochemicals have been rising over the years. The rising prices of inputs are the results of instability in the factor markets arising from instability in macroeconomic policy actions leading to inflationary pressures, high interest rates, and volatile exchange rate. Invariably, the deficiency in macroeconomic policy environment constituted a major constraint to the growth of investment in production of agricultural products. This has a tendency to cause high factor cost to the farmers cultivating agricultural crops. Moreover, the rising prices of fuel have led to rising cost of transportation of farm inputs thus aggravating the rising cost of production. The rising costs of farm inputs combined with dearth of investible funds pose a serious constraint to investment in agriculture. This could lead to reduction in production and domestic supplies of agricultural products. The high interest charges on loans for agricultural production have resulted in escalation of production costs. Most of agrochemicals are imported as reflected by Table 3.4.2. The situation not only made procurement difficult but again resulted in cost escalation arising from the depreciated naira exchange rate. The prices of many commodities also increased although due to wide fluctuations it has not resulted in persistent rise in profitability of farm enterprises. The cassava experience provides an illustration of the possible effect of price fluctuations on output of commodities. When the Presidential initiatives commenced in 2002, farmers were encouraged to expand the production of cassava. Initially, the farmers received remunerative prices. As further campaigns continued and support for the production of the commodity increased, output was further increased. However, today there seems to be a glut in the cassava market due to marketing bottlenecks. Prices are now falling and farmers are likely to reduce the area under cassava production. Urban consumers will support falling prices of food staples, but net producers are unlikely to derive adequate income to guarantee profitability of production of the commodities.

3.5 Agricultural Labour

Availability of labour affects the use of farmland in the traditional farming system. Since agriculture in Nigeria is virtually unmechanised, human labour becomes vital in all production systems, accounting for about 90 per cent of all farm operations. Under semi-mechanized systems, including animal traction use, human labour use is as high as 70 per cent of all operations (NISER, 2001). Although farming is largely labour-intensive, farmers, generally often experience seasonal labour shortages. The supply of labour is affected by unending migration of able-bodied youths from the rural to urban areas creating labour shortages especially at peak periods when labour is required for land preparation, weeding and harvesting. Hired labour shortages have driven up the cost of labour making such labour unprofitable to the average smallholder. Exacerbating the migration problem has been the poor agricultural productivity of smallholder farmers and the perception among young adults in farm families that the farm cannot support them and their livelihood (Chemonics, 2003).

3.6 Technical Constraint

Technical constraint in Nigeria affects both the upstream and the down stream segments of agriculture. The constraint manifests in poor technology, poor quality of raw materials and inadequate supply of modern inputs. The main causes of the constraint include low support from government, poor government policy, poverty, low level of awareness, lack of adequate research and increases in the prices of inputs. Poor government support and poor government policy prevent the emergence of innovations from research institutes, thereby curtailing the level of available technically feasible and efficient agricultural practices. Even when they are available, there seem to be communication gaps between farmers (end-users of research efforts) and the researchers. The existence of unified agricultural extension system notwithstanding, there is still poor coordination between researchers, extension agents and farmers. This situation is worsened by the low extension-farmer ratio, which hovers around 1 to 1000. The poverty incidence among farmers, which is the highest in the economy, also contributes to the persistence of technical constraint in Nigeria. Thus, farmers are unable to take up new innovations aimed at boosting their productivity and, by extension, their output. The low level of productivity translates to a vicious cycle of poverty, thereby leading to low level of production. The technical constraint is further sustained by high input prices, which is a consequence of inflation in the economy as well as the dependence of the agricultural economy on foreign inputs.

3.7 Inadequacies in Past Policies and Programmes

Earlier attempts at improving agricultural production in Nigeria such as the operation feed the nation, the green revolution programme and other laudable interventions in the agricultural sector emphasized increased production without commensurate efforts at post harvest management and industrial utilization. Most of them handled the various aspects of the post harvest system such as processing, packaging, marketing, storage, distribution and transportation in isolation from one another. There was no effort to make the system comprehensive and holistic in its management. Also, industrial utilization of agricultural commodities is constrained by inadequate linkage of agriculture to industrial sector. Each programme followed haphazard implementation that creates more problems without achieving anticipated goals. Although, most of the programmes yielded seasonal increases in agricultural output, inefficient and ineffective post-harvest

management and generally low level of industrial utilizations have always resulted in substantial agricultural wastages, food losses, reduction in available food, restriction in its spread over the year, and also reduction in employment and rural income.

The difficulty confronting the local industrial utilization of agricultural commodities is how to initiate and sustain the momentum for diversification of raw agricultural commodities into agro-industry for transformation into high value added products in order to realize and optimize high growth potential that undoubtedly exists in agricultural commodities. This remained worrisome by the dilapidating state of rural infrastructures that hampered effective linkage of agriculture to the industry. This undoubtedly makes investment unattractive to the private sector and thus limiting agricultural development in the country. Excessive dependence on a narrow range of products as sources of income and foreign exchange earnings bring about a number of unfavourable consequences on the economy. Firstly, it exposes farmers unduly to the vagaries of climate, pests and diseases and to price fluctuations. Secondly it leads to fluctuations in farm income and government revenue. Thirdly, it contributes to environmental degradation. Fourthly, it may result in failure to take advantage of complementarities (e.g. between livestock and crops) and has negative effects on diet, food security and welfare of Nigerians. In addition, an adverse international term of trade facing the primary agricultural commodity sector is a further constraint to growth of the sector. There is a clear need to diversify production and export base, both horizontally and vertically, from low value added to high value added products.

High growth potentials and opportunities available in diversifying agricultural commodities to agro-industry for generation of high value added products had been limited and thus underexploited in Nigeria due to irregular supply of raw materials from the agricultural sector to the agro-industrial firms. Available evidence depicts that there had been poor linkage of agricultural sector to the industrial sector. This had aggravated the low domestic utilization of agricultural commodities by the agro-allied firms, which is being reflected by a general decline in the average capacity utilization rates by the firms. For instance, average capacity utilization rates had declined from 54.3 per cent in 1980 to 19.0 percent in 2005 in cocoa confectionary industry. In the vegetable and grain milling industry, average capacity utilization rate had declined from 84.5 per cent in 1980 to 45.8 per cent in 2003 (Table 3.7). Thereafter, it rose to 90 per cent in 2005 and declined again to 76.97 per cent in 2010. The general decline in average capacity utilization rates in the agro-industry could partially be attributed to inadequate and irregular supply of raw materials and a combination of other factors like aging plants, deficient equipments and poor performance of utilities (Oni, 2005). The inadequacy and irregularity of supply of raw materials to agro-industry can be more formidable because majority of the domestic supply of the commodities are being exported from Nigeria to foreign trading partners in their raw forms.

4.0 Prospects of Attracting Investments

Investors are always willing to put their money in attractive enterprises. In Nigeria, the new policy on agriculture has indeed identified seven areas of investment. These are agricultural production (crops, livestock, fisheries, and agroforestry), provision of enterprise specific infrastructure, agricultural produce storage, processing and marketing, agricultural input supply and distribution, support for agricultural research, provision of agricultural implements hiring service and collaboration with state and local government as well as farmers in implementation of the research-extension-farmer-input/marketing-linkage system (REFILS) in the states. Manyong et al 2003 also identified thirteen investment options including input production and supply enterprises, staple food crops production enterprise, industrial crops production enterprises, livestock production enterprises, fisheries, forestry, commodity processing and storage enterprises. Others are agricultural commodity marketing, agro-industry/manufacturing, agricultural commodity export and agricultural support services. Perceptions of different stakeholders revealed that foreign investors would be attracted to activities/enterprises that are capital intensive and that add value to primary products (Manyong et al 2003). In this connection, downstream activities are relatively more attractive to foreign investors. On the other hand, primary upstream enterprises and agro-services are relatively more attractive to local investors. *Across the six geopolitical zones in the country and enterprises, three main reasons stand out for the attractiveness of the enterprises to foreign investors. These are high level of demand, availability of raw materials/inputs and high rate of returns. All of these indicate economic viability of the different enterprises. There are, however, specific reasons for the attractiveness of the enterprises across the zones. For instance, lack of competing local investors is identified in the northeast as one of the reasons for the attractiveness of commodity processing to foreign investors. Similarly, poor infrastructure and high perishability of agricultural commodities are considered to be incentives for foreign investment in agricultural commodity storage. The three main incentives for domestic investment are high demand, high rate of return and availability of raw materials. However, huge capital requirement is a disincentive for domestic investors' involvement in input production/supply enterprises and agricultural commodity processing enterprises. Similarly, land fragmentation is a major disincentive for domestic investors' participation in forestry enterprises in both the southeast and the south south.

4.1 Crop Production

It is pertinent to note that the massive importation of particularly rice and the seasonal scarcity of maize sorghum and millet are indications that the production of cereals is inadequate. It has also become necessary to increase the production of other crops as underscored by the presidential initiatives on the production and export of cassava, vegetable oil, tree crops and cotton. Crop production still provides ample opportunities for private sector initiatives.

4.2 Livestock Production

Private sector initiatives in poultry production and the breeding and rearing of small and large ruminants are common although most establishments may be described as small-scale farms. Poultry production can easily be described as the leading private sector driven agricultural enterprise. The enterprises were sustained on cheap poultry feed predicated on cheap maize imports from the United States of America. The ban imposed on the importation of maize in the 1980's and the attendant escalation of feed prices dealt death blows to most "backyard" poultry enterprises. At a point, only those producers who formulated their own feed were able to stay in business. Poultry production has since revived but the demand for poultry products has remained far above supply necessitating the importation of frozen chicken and beef. The current ban imposed on the importation of frozen chicken and beef should therefore, create even greater investment opportunities for the private sector in the poultry industry. The poultry industry nevertheless depends almost entirely on the importation of exotic breeds of parent stock of birds - a situation that can hardly be sustained by the farmers and by the economy. The need for the private sector to support research to develop truly Nigerian breeds that are comparable in attributes to the foreign imported stock creates important opportunity to invest. Another aspect of the livestock industry that appears to have been ignored is dairy production. It is evident that herdsmen pour large quantities of milk away each day. Yet, the market for dairy products appears vast in Nigeria. Milk collection and processing is thus an area yearning for private sector attention. The establishment of feedlots especially close to the major urban centers where incomes have risen and the demand for high quality beef should provide opportunities for viable private sector initiatives.

4.3 Fish Production:

The demand for fish far outstrips the supply and thus fish is relatively scarce and expensive. Investment in culture and capture fisheries by the organized private sector is the only hope for rapid expansion of fish production to meet increasing demand. The need for private sector participation becomes quite pressing in view of the fact that culture and capture fisheries are both capital intensive. Identified investment opportunities for the private sector include the following:

- Large-scale aquaculture and industrial fisheries development, including the acquisition of industrial fishing trawlers;
- Development of fishing infrastructure such as fish hatcheries, construction of fishing terminals and fish landing jetties in major fishing settlements;
- Local production of fishing inputs such as nets, fishing crafts, boats, hooks and lines, floats and sinkers;
- Fishing processing, marketing and distribution facilities;
- Development of fish feed mills.

4.4 Input Supply

The production, distribution and supply of agricultural inputs provide opportunities for viable private sector initiatives. Opportunities are increasing for agro-industries that service and sustain farm operations through the production, distribution and supply of various categories of production inputs such as:

- Fertilizers and other agro-chemicals (pesticides, insecticides, herbicides, and fungicides). About 95 per cent of the agrochemicals used in Nigeria is imported since the withdrawal of multi-national companies from Nigeria during the Abacha regime (Nwosu, 2004). The demand for agrochemicals is rising and provides viable opportunities for the local manufacture of agro-chemicals.
- Improved seeds and seedlings: The time is ripe for the emergence of seed companies to provide improved seeds for the emerging large-scale, commercial growers. The market for improved seeds has remained largely untapped.
- Day old chicks: The demand for day-old-chicks has remained largely unsatisfied especially in the eastern parts of the country. Poultry farmers in the East go as far as Lagos and Ibadan to procure day-old-chicks.
- Fish fingerlings Seedlings : oil palm, cocoa, horticultural crops.

4.5 Production of Farm Machinery and Equipment

A vast proportion of the agricultural machinery used in Nigeria is still imported. According to Nwosu (2004), there are only two tractor-assembly plants in Nigeria - Steyer in Bauchi and Fiat in Kano. The two companies have a combined annual output of less than 2000 tractors. There are nevertheless, some private establishments, which fabricate some agricultural equipment. A major problem faced by such establishments is inadequate

funding. Private sector investment in the development and commercialization of appropriate agricultural machinery and equipment for processing and storage and other farm operations is desired. In this connection, the private sector should also invest in the commercialization of prototypes of improved mechanical and other technologies developed in various research institutes, which are wasting away on the shelves of researchers. The pioneering role of Holt Engineering in the manufacture and distribution of farm tools such as disc harrows, riggers and plows is acknowledged. The production and marketing of farm machinery, tools and equipment is capital intensive and provides gainful opportunities for private sector initiatives.

4.6 Processing of Farm Produce for Domestic and Export Markets

Processing facilities are inadequate for the export commodities such as cocoa, rubber, palm kernels, cotton, groundnuts, tobacco and timber. There is also very few processing facilities for the highly perishable fruits and vegetables. The Chi Group in Lagos, which manufactures fruit juices, seems to have successfully integrated own farming, and contract out-grower system with processing. The subsisting ban on the importation of fruit juices should enhance the investment opportunities for the private sector. Besides, there is a large and increasing demand for processed farm products in the Nigerian market and the ECOWAS sub-region. There is also a growing market abroad for various types of Nigerian foods patronized by the large number of Nigerians living in Europe and the USA, by other West Africans and even by African Americans. Food processing, marketing and trade provide opportunities that should be exploited by the private sector. The possibilities provided by the African Growth and Opportunity Act (AGOA) of the United States of America should be explored. The Act eliminates for Nigeria and other African countries existing quotas under the Uruguay Round Agreement in many commodities, especially agricultural products from Sub-Saharan Africa. Also, the generalized system of preference (GSP), which confers lesser tariff on a large number of products entering the U.S. market, will be enforced for Africa up till the year 2008. There is nevertheless, the need to educate Nigerian entrepreneurs on the conditionalities of AGOA, to enable them take advantage of the high export prospects offered by products such as ginger, gun arabic, sesame, cashew, leather and skins, cocoa, rubber, African honey, flowers, spices and vegetables. The export trade in these commodities again, provides opportunities for private sector initiatives.

5.0 The Way Forward

- Government should invest heavily in rural infrastructure development that will promote private investment in all areas of agriculture and facilitate linkage of agriculture to industry. The rural electrification programme should be intensified to cover all rural villages in the country.
- Improvement in downstream Agricultural Commodity Activities: Primary activities encompassing crop planting and harvesting constitute upstream agricultural commodity activities from which primary commodities emerge. Following these are some essential secondary or post-harvest activities that constitute downstream activities. These secondary activities are important in adding value to the primary product, improving its quality and rendering it less perishable. In general, downstream commodity activities improve the market opportunities for agricultural products and promote their commercialization, enhancing not only its competitiveness but also the rate of return on their investment. Key downstream commodity activities include: storage, processing into intermediate or final (finished) products, and marketing and distribution through domestic and export trade. Key intermediate supporting services for these downstream activities include adequate infrastructure (physical, economic, and social), efficient financial institutions, adequate human capital, relevant local organizations (such as community-based organizations, farmer organizations, etc.), transport services and commodity grading and quality control services.
- Improve agricultural production, processing and trade through increased access to resources such as land, technology (improved inputs) credit, training. Adoption of modern farming and husbandry practices such as planting of improved seeds and seedlings, application of agricultural chemicals for pest and disease control and tractors to reduce drudgery and enhance yields should be facilitated by assisting the farmers in sourcing improved technologies. Small-scale irrigation in all agro-ecological zones of the country should be promoted and strengthened.
- Government should sustain its drive to achieve a stable macroeconomic environment, which manifests largely in price stability. On the social front, government should ensure security of life and property to attract domestic and foreign investment to the sector.
- Increased support for Agricultural Research and Extension: There is the need to strengthen agricultural research activities through increased and stable funding, proper coordination, strengthening of linkages among research centres as well as adequate training of research and technical staff in specialized skills. Research systems must identify new mechanisms to find out why farmers do what they do, their research needs and priorities.
- Employment and income generation should be enhanced through promotion of diversification of rural economy. Government should support capacity building among small-scale farmers and facilitate linkages

with large processors and manufacturers using agricultural commodities so as to develop long-term contractual arrangements among them. Also government should promote value-added agriculture to provide stimulus for wealth creation and employment creation.

- Increased funding of the agricultural sector so as to improve efficiency of institutional agencies for agricultural development. The functions of the agencies should be streamlined to ensure adequate funding for their core functions.
- Environmental Management: Increased investment in the agricultural sector and the resulting commercialization of products will most likely pose increased threat to environmental damage either through land degradation, pollution of the ecosystem by the effluent of processed agricultural commodities or the exhaustion of agricultural resources. Sustaining the agriculture environment will require adopting the following strategies: promotion of proper cultural practices associated with various commodities recommended by developers of improved technology packages. Adoption of post-harvest processing technologies that minimize waste and control pollution of the environment. Use of crop and livestock mix enterprises that prevent and minimize soil degradation.

In conclusion, the potentials for domestic and foreign investment in different agricultural enterprises in the different zones of Nigeria are high, in view of the large population size of the country, the availability of abundant resources and raw materials and the opportunity to earn good returns from investment. Efforts put into ensuring effective implementation of the above recommendations will constitute quick wins in stimulating the flow of investment into the agricultural sector. This will pave way for diversification of revenue sources, increased income, employment generation and poverty reduction in the country.

References

- Akande, S.O (2006), "Food Policy in Nigeria", Analytical Chronicle, New World Press.
- CBN (2003), "Contemporary Economic Policy Issues in Nigeria", Central Bank of Nigeria, Abuja, Nigeria
- CBN (2011), "Statistical Bulletin", Volume 22, Central Bank of Nigeria, Abuja, Nigeria.
- Chemonics International (2003), "Nigeria Food Security Assessment", Final Report USAID, Nigeria.
- Ekpo, A and Egwaikhide, F (1994), "Exports and Economic growth in Nigeria: A Reconsideration of the Evidence", Journal of Economic Management 1(1) December.
- Manyong V.M. et al (2003), "Agriculture in Nigeria: Identifying Opportunities for Increased Commercialization and Investment", USAID.
- NBS(2011), "Annual Abstract of Statistics", National Bureau of Statistics, Federal Republic of Nigeria, Abuja, Nigeria.
- NISER, (2001), "NISER Annual Survey of Crop Production Conditions in Nigeria", A Publication of NISER Annual Monitoring Research Project.
- Nwosu, A.C. (2004), Private Sector Initiatives in Agricultural Development in Nigeria in Nnanna et al eds: Enhancing Private Sector-Led Growth in Nigeria. Proceedings of the 13th Annual Conference of the Regional Research Units. Central Bank of Nigeria, Abuja, Nigeria.
- Okoruwa, V.O. et al (2003), "Determinants of traditional agricultural exports in Nigeria: an application of cointegration and error correction model", Quarterly Journal of International Agriculture, Vol. 43, No. 4
- Olomola, A.S. (1998), "Structural Adjustment and Public Expenditure on Agriculture in Nigeria eds Tshikala T. in Structural Adjustment and Agriculture in West Africa", Codestria, Senegal.
- Olomola, A.S (2007), "Food Security Under the 7-Point Agenda of President Yar' Adua Strategies and Challenges" Nigerian Institute of Social and Economic Research, Ibadan, Nigeria.
- Oni, T.O. (2005), "The Potentials of and Constraints to Diversification of Cocoa to Agro-Industry in Nigeria", Bowen Journal of Agriculture Volume 2, No 2. Bowen University, Osun State, Nigeria.
- Oni, T. O. (2007): Supply Response of Traditional and Non-Traditional Agricultural Export Commodities to Macroeconomic Policies in Nigeria. Unpublished Ph. D Thesis, Department of Agricultural Economics, University of Ibadan, Nigeria.
- Osuntogun et al (1997), "Potentials for Diversifying Nigeria's Non-Oil Exports to Non-Traditional Markets", AERC Research Paper 68, African Economic Research Consortium, Nairobi.
- Oyejide T.A. (1998), "Trade Policy and regional integration in the development context. Emerging patterns, issues and lesson for sub-Saharan Africa" , Journal of Economics 7 supplement 9, June, 1998.

Table1.1: Five-Year Average Sectoral Contribution to GDP (%).

Year	Agriculture	Manufacturing	Oil	Services		Total	Total (%)
				Private	Government		
1981-85	37.2	9.2	14.9	27.2	11.5	38.7	100
1986-90	41.0	8.3	13.3	29.7	7.8	37.5	100
1991-95	38.3	7.5	13.3	31.3	9.6	40.9	100
1996-2000	40.0	6.3	11.9	32.0	9.8	41.8	100
2001-2005	42.4	8.1	13.5	24.1	11.9	36.0	100
2006-2011	41.7	6.2	18.2	29.6	4.3	33.9	100
Average	40.1	7.6	14.2	29.0	9.2	38.1	100

Source: Underlying data obtained from the Central Bank of Nigeria, Abuja, Various issues.

Table 3.4.1: Average prices of Major Farm Inputs in Nigeria.

Type of Input	1980	1985	1990	1995	1999	2007	2011
Hoe(N/Unit)		2	20	105	200	Na	400
Matchet(N/Unit)	5	8	35	150	250		500
Sprayer(N/Unit)	75	150	850	2200	4500	Na	7000
Tractor Hire(N/ha)	25	55	250	850	2000	Na	3000
Fuel (N/Litre)		0.20	0.44	7.39	17.80	Na	97.00
Fertilizer(N/25kg)	2	15	50	500	1250	Na	5,000
Agrochem(N/litre)	-	65	280	850	1500	2026	2500

Source: National Bureau of Statistics, Annual Abstract of Statistics, 2011, Federal Republic of Nigeria.

Table3.4.2: Growth Rates of Agrochemical Imports in Nigeria, 1970-2005.

Variables	1970-75	1976-80	1981-85	1986-90	1991-95	1996-2000	2001-2005
Insecticide imports							
Average quantity('000Kg)	460.43	20721.96	20127.44	4146.3	3742	Na	Na
Growth Rate (%)	1050.82	22.26	-34.38	-16.08	-9.75	Na	Na
Fungicide imports							
Average quantity('000Kg)	201.97	1001.85	879.64	4024.89	972.39	Na	Na
Growth Rate (%)	217.04	1.24	694.87	393.21	-75.84	Na	Na

Source: Oni, T. O. (2007): Supply Response of Traditional and Non-Traditional Agricultural Commodities to Macroeconomic Policies in Nigeria. Unpublished Ph. D Thesis, Department of Agricultural Economics, University of Ibadan, Nigeria. Export

Table3.7: Nigeria's Average Capacity Utilization Rates in Agro-Industry (%).

Item	1975	1980	1985	1990	1995	2003	2005	2010
Sugar and Cocoa Confectionery	-	54.3	31.6	42.6	18.3	33.1	19.0	71.25
Vegetable and Grain Mill	-	84.5	51.2	25.0	40.4	45.8	90.0	76.97
Bakery	66.4	74.4	42.7	42.3	19.1	43.0	65.0	53.75
Soft Drinks	-	72.5	27.7	47.0	41.5	46.5	48.0	57.40
Textiles	79.7	84.4	44.6	52.2	44.3	34.6	48.0	38.20

Source: Underlying Data Obtained from Central Bank of Nigeria Statistical Bulletin, 2011.

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage:

<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. There's no deadline for submission. **Prospective authors of IISTE journals can find the submission instruction on the following page:** <http://www.iiste.org/journals/> The IISTE editorial team promises to review and publish all the qualified submissions in a **fast** manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Recent conferences: <http://www.iiste.org/conference/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

