

SYNTHESIS OF THE LITERATURE ON EMPLOYMENT CREATION IN NIGERIA'S AGRICULTURE AND AGRO- INDUSTRIES IN THE CONTEXT OF INCLUSIVE GROWTH

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Preface

This report is facilitated by the agreement signed by the Knowledge Platform on Inclusive Development (INCLUDE), the Partnership for African Social and Governance Research (PASGR), and the National Institute for Legislative Studies (NILS) to implement the establishment of the research-policy community (Utafiti Sera) on wage employment creation in agriculture and agro-processing in Nigeria. It is a report informed by preliminary findings from a research project on employment creation in agriculture and agro-industries in the context of inclusive growth in Ethiopia, Kenya and Nigeria. It is also informed by a synthesis of other studies on employment creation in Nigeria. Although, there have been many empirical studies (complete and on-going) on wage employment and inclusive growth in Nigeria, their findings are yet to be made available to inform policy. This synthesis report was undertaken to summarize the key findings within the literature to inform policy discussions and determine specific policy areas to be pursued by the research-policy community (Utafiti Sera) on employment creation in Nigeria.

Utafiti Sera represents communities of researchers and policy actors that work together to provide new ways of thinking and collaborating to address the challenges that hinder the use of research evidence to policy action and programming decisions. It contributes to building, facilitating, enhancing and sustaining a vibrant community of researchers and policy makers to work together to ensure that appropriate policy actions occur either through programmes, legislation, policies or administrative and other actions around an issue for which research has provided evidence or for which a synthesis of available evidence has been made. Utafiti Sera is a combination of many things that ensure and enhance policy outcomes. It is a 'process', 'place', 'forum', 'platform', or a 'vehicle' for transforming research evidence-based knowledge for policy uptake.

With financial support from INCLUDE, PASGR has facilitated the establishment of Utafiti Sera in Kenya (with AIHD¹) and Nigeria (with NILS) to ensure that research evidence emanating from the study and other studies inform and influence employment policy and programmes in agriculture and agro-processing value chains.

INCLUDE, was established in June 2012. It brings together researchers from African countries and the Netherlands who work with the private sector, NGOs and governments to exchange information and ideas on how to achieve better research-policy linkages on inclusive development in Africa. The platform is one of five knowledge platforms initiated by the Dutch Ministry of Foreign Affairs to contribute to knowledge and effective policies in the Netherlands, other donor countries and developing countries. INCLUDE secretariat is hosted at the African Studies Centre, an inter-departmental institute of the Leiden University, with its registered office at Wassenaarseweg 52, 2333 AK Leiden, The Netherlands, and represented by Prof. Ton Dietz, Director, on behalf of the executive board of Leiden University.

On the other hand, PASGR, is an independent, non-partisan pan-African not-for-profit organisation established in 2011 and located in Nairobi, Kenya. Currently engaged in more than 12 African countries, PASGR works to enhance research excellence in governance and public policy that contributes to the overall wellbeing of women and men. Its registered office is located at KMA Centre, 4th Floor, Mara Road, Upper Hill, P.O. Box 76418-00508, Nairobi, Kenya, and represented by Prof. Tade Akin Aina, Executive Director; while NILS, is an organ of the National Assembly established by an Act of Parliament, with its registered office at No. 14/18 Danube Street, Maitama, Abuja, Nigeria, and represented by Dr. Ladi Hamalai, Director General. NILS is the capacity building institution of the Nigerian National Assembly with the financial support of the African Capacity Building Foundation (ACBF). It seeks to strengthen the capacities of legislators and ensure that the positions and proposals advanced by the National Assembly are informed by requisite research and analytical support.

¹ African Institute for Health and Development (AIHD)

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EXECUTIVE SUMMARY

1. There exists a large body of literature examining the real and potential link between agriculture/agribusiness and employment creation. However, no such comprehensive review linking these two important issues has been undertaken for Nigeria. The study seeks to contribute to the literature by identifying and reviewing policy relevant studies on employment creation in agriculture/agro-processing in Nigeria.
2. The potential of agriculture and agribusiness to promote inclusive growth in Nigeria is enormous. It is labour intensive in nature and capable of producing the enormous raw material needs of the industry as well as produce food for the teeming population. Despite this high potential of agriculture for promoting diversified, inclusive and sustained growth, unemployment remains unacceptably high in Nigeria over the years.
3. The concept of inclusive growth suggests that the economic growth recorded is sufficiently broad-based, cuts across the sectors that make up the economy, benefits the most people including the vulnerable, marginalized and disadvantaged ones, and induced increased employment. Four components or indicators of inclusive growth include economic inclusion, social inclusion, spatial inclusion, and political/institutional inclusion. When related to agriculture and agro-industry, inclusive growth suggests a growth pattern that results in obvious benefits of improved welfare and livelihood of those engaged in activities related to this sector through increased employment, income and other welfare maximizing results.
4. Brazil, China, and India offer excellent examples for Nigeria as countries to benchmark in strengthening the relationship between agriculture/agro-industry and employment creation. The successes recorded by these countries are rooted in their Impressive public policy and investment in agricultural R&D, massive government effort in land reform, and well-sequenced agricultural transformation policy approach. Two important lessons that can be learned from these countries are that agricultural policy can be right only if the underlying institutions are stable and effective, and agriculture reform must be holistic and well sequenced.
5. The literature review reveals several noteworthy emerging trends. First, agriculture and agribusiness have high potential for promoting inclusive growth in Nigeria. Second, there is a seeming consensus on key challenges limiting the potential of agriculture and agribusiness to foster inclusive growth in Nigeria. Third, coordinated and focused policy interventions are required to mainstream agriculture as engine of inclusive growth. Fourth, rural infrastructure imperative to generate and sustain job creation in agriculture and improve rural livelihood. Fifth, Agriculture value chain development offers opportunity for increased rural livelihood. Lastly, there is a large untapped pool of employment opportunities in agriculture.
6. Based on the findings and emerging trends in the literature reviewed, the following recommendations are made:
 - a. The government is encouraged to develop agriculture value chains in areas of comparative advantage, develop the agro-industry through upgrading and modernization, accord indigenous technology a prominent role in promoting agriculture and agro-industry, develop the export market and promote trade at regional and international levels, promote private enterprise and foreign direct

investment (FDI) in agro-industries, and promote agro-industry and rural infrastructure development.

- b. The farmers, especially youth, are enjoined to increase your visibility, and promote self-support through self-help organizations.
- c. For donors, it is recommended that they assist in promoting inclusive growth through provision of technical assistance to all segments of the agriculture value chain and Improve donor coordination.
- d. Other recommendations that are cross-cutting in nature include promotion of strong partnership among all stakeholders, joint treatment of agriculture/agro-industry as national priority, and promotion of agribusiness education and youth vocational training.

1. Introduction

Agriculture holds high potential for inclusive growth in Nigeria. It generates food for the people and produces raw materials needed for the country's industrial production and development. Increased agriculture and agribusiness activities holds high promise for a shift away from the current high dependence on oil to a more sustained diversified economy. Given its labour-intensive nature, agriculture has high potential for creating millions of jobs, thus reducing the current high rate of unemployment in the country and creating wealth for substantial poverty reduction. It is also capable managing rural-urban migration with its attendant improved livelihood in both rural and urban areas through reduction in urban unemployment, crimes and city slums.

Indeed, the agriculture sector has the potential to meet the needs highlighted above. Almost 84 per cent or over 80 million hectares of the Nigerian land mass is adjudged arable. The arable land is capable of producing diverse commodities that include, among others, cocoa beans, rubber, groundnuts, rice, millet, wheat, beans, sesame, cashew nuts, cassava, kolanut, maize, melon, palm produce, and plantain. However, less than 50 per cent of the arable land is being currently cultivated. In addition, the country has around 230 billion cubic meters of water with abundant and reliable rainfall in over two thirds of its territory all year round. Agriculture remains the highest employer of labour in the country and has high potential as an alternative source of foreign exchange earner.

Despite this high potential of agriculture for promoting diversified, inclusive and sustained growth, unemployment remains unacceptably high in Nigeria over the years. Focusing on recent development, for instance, unemployment has been worsening there is worsening, rising from 10.4% in the fourth quarter of 2015 to 13.9% in the third quarter of 2016. Similarly, underemployment that stood at 18.7% in 2015 climbed to 19.7% in the third quarter of 2016.

The literature is replete with empirical findings on the real and potential link between agriculture/agribusiness and employment creation. However, to the best knowledge of the author, no comprehensive review linking these two important issues has been undertaken for Nigeria. This paper takes up this challenge with a view to contributing to the agriculture and inclusive growth literature in Nigeria.

The methodology of the literature review is both historical and systematic. The paper examines all available literature covering all periods in Nigeria. Thus, the paper provides a review of different views and opinions on the subject matter over the years. This helps to put research on the subject matter in perspective. The selection process of the literature is open and unrestricted. All relevant available literature available to the author on the subject matter are considered and included in the review.

The main objective of this study is to identify and review policy relevant studies on employment creation in agriculture/agro-processing with a view to eliciting lessons from the literature that can be used to improve the contribution of agriculture and agribusiness in promoting inclusive growth in Nigeria. It also focuses on providing a summary of key policy issues in government documents or discussion papers on employment creation in Nigeria in order to generate information on critical policy issues on employment creation in agriculture and agro-industries in Nigeria. Lastly, it provides a synthesis of the emerging issues from the empirical studies and policy documents with a view to providing relevant policy recommendations to various actors and stakeholders in the Nigerian agriculture and agro-industry.

Following this introduction, section two provides information on some conceptual issues relevant to the focus of the paper. Section three examines some country experiences as benchmark for Nigeria in its attempt to improve job creation in agriculture and agribusiness for the purpose of improving inclusive growth. Section four peruses the potential of agriculture and agribusiness for Job creation in Nigeria. Section five focuses on agriculture and inclusive growth, while section six articulates the role of finance in promoting employment in agriculture. Sections seven to ten reviews the role of role of government policy, private sector, public-private partnership, and donors, respectively, in promoting employment in agriculture. Emerging trends and synthesis of the findings in the literature are articulated in section eleven while section twelve provides some recommendations and brief concluding remarks.

2. Conceptual Issues

The concept of inclusive growth refers to sustained economic growth that “results in a wider access to sustainable socio-economic opportunities for the majority of people, while protecting the vulnerable, all being done in an environment of fairness, equality and political plurality” (Kanu, Salami and Numasawa 2014: 4). This suggests that the economic growth recorded is sufficiently broad-based, cuts across the sectors that make up the economy, benefits the most people including the vulnerable, marginalized and disadvantaged ones, and induced increased employment.

To this effect, six broad and mutually reinforcing pillars have been identified to underpin inclusive growth. These are: improved agricultural productivity; enhanced regional integration, especially the integration of smaller and landlocked countries; job creation, including improving skills for productivity and competitiveness; wider equal access to basic infrastructure and basic social services; improved access to business opportunities; social protection and inclusion; and wider access to productive knowledge (Kanu, Salami and Numasawa 2014).

Furthermore, Ncube (2015) identified four components or indicators of inclusive growth. These are economic inclusion, social inclusion, spatial inclusion, and political/institutional inclusion. Overall, an economic growth that broadens access to sustainable socio-economic opportunities for more people, in a country, region or community and simultaneously protect the poor, vulnerable and marginalized people can be termed inclusive.

When related to agriculture and agro-industry, inclusive growth suggests a growth pattern that results in obvious benefits of improved welfare and livelihood of those engaged in activities related to this sector through increased employment, income and other welfare maximizing results. Given the nature and structure of agriculture and agro-industry activities, which dictates that most activities occur in the rural areas, inclusive growth in agriculture results in direct benefits to a large number of people living below or on the fringes of poverty in rural areas.

The concept of inclusive growth derives from the notion that growth is not sought as an end in itself, but as a means to an end. The end being increased job creation, reduced inequality, increased productivity, reduced vulnerability and marginalization, and increased standard of living for everyone but especially the poor. Bhagwati (2011) provides two reasons for this position. First, he opines that growth would naturally pull the poor into gainful employment which will impliedly lift them out of poverty. The higher income derived from the gainful employment achieved will provide them with the resources needed to increase consumption of social services like health and education. Second, that growth increases government revenues,

thus providing the government with increased spending on poverty-reducing and welfare-improving activities like health, education, human capital development, and infrastructure (rural and urban).

There is a consensus that economic growth in Nigeria over the years has not been sufficiently inclusive (Ogujiuba and Alehile 2011, Ogbu 2012, Leke, *et al* 2014, and Samans *et al* 2015). This is premised on the obvious facts about the nature and structure of growth over the years and its impact on components and indicators of economic growth. The country recorded a fairly brilliant DGP growth in the neighborhood of 6 per cent for nearly a decade. Yet, the country's performance on poverty has not been impressive with poverty rate measured by the number of those living on less than a dollar a day rising from 52 per cent to 61 per cent between 2004 and 2010. Over this period also, income inequality worsened with the country's National Bureau of Statistics establishing that top 10 per cent income earners accounted for approximately 43 per cent of the country's total consumption.

Overall, the encouraging economic growth Nigeria has experienced over the recent past has not been sufficiently "pro-poor", has not been accompanied by sufficient job creation, has not been sufficiently broad-based across sectors, has been led mainly by the boom in crude oil and gas price, has not been sustainable, has not been adequately structurally transformative, and has not meaningfully impacted on non-income dimensions of well-being like health and education.

3. Benchmark Countries for Employment Creation in Nigerian Agriculture

There are peer countries Nigeria could learn from in its quest to achieve inclusive growth through the agricultural sector, particularly on job creation. Some of these countries are Brazil, Malaysia, South Africa, India and China. A review of the role of agricultural sector in promoting inclusive growth and policies that help achieved this in a few of these countries is presented in this section.

3.1 Brazil

The success Brazil has recorded in its agriculture and agro-industry performance, especially with respect to employment generation lies mainly in its agriculture policy and strategy. The country's successful agricultural transformation achievement started from a relatively backward agricultural setting, similar to that of Nigeria. Since 1995, it has recorded significant and unprecedented drop in poverty and inequality. Some of these policy interventions are highlighted below.

- **Impressive public investment in agricultural R&D.** Between 1981 and 2013, Brazil Spent a cumulative total of USD61.6 billion on agriculture R&D measured in 2011 PPP. Agriculture research intensity is also obviously high with 1.6 per cent average annual agriculture R&D expenditure (excl. private for-profit sector) as a percentage of agriculture output or GDP. Through this, the country has built one of the largest agricultural research systems in the world through well-funded technological research undertaken by the governmental agricultural research institute, EMBRAPA.
- **Favourable agriculture R&D policies.** The public agriculture R&D policies are structured to operate as a "Track Cleaning Train", opening the way for fast moving and highly innovative private sector operations. One of these is instantaneous depreciation for R&D investment up to 100%. Government also provides tax incentives for R&D investment for all sectors including agriculture with income tax deduction that can be up

to 200% of R&D investments.

- **Strong State institutional support.** EMBRAPA, the governmental agricultural research institute is the brain behind the country's agricultural revolution and transformation. The support takes the forms of adequate levels of public funding, sustained investment in human capital (between 1974 and 1982, 20% of its budget was devoted to staff education and training), international collaboration and research excellence, and a clear mission orientation and intellectual property right policy.
- **Focus on agriculture innovation.** The government has a national policy on innovation with identified need for better structure through a national Council with representatives from key ministries. Zero tillage is the most important agricultural technology innovation adopted in Brazil in the last 50 years with benefits that include cost reduction, lengthening of the life of agricultural equipment, reduces labour requirements and simplifies labour management, yields increase, increase in agricultural and economic sustainability. Other innovations involve genetically engineered seeds and second season cultivation.
- **Massive government effort in land reform.** The land reform is rooted in the 1988 constitution amendment that allows Brazilians the right to challenge land ownership of certain size through ascertaining authenticity of the land title or submitting that the land is not fulfilling its 'social function' that means ensuring at least 80% of the land is used effectively, environmental and labour standards are respected, and both owners and workers benefit.
- **Phased and well-sequenced agricultural transformation policy approach.** First phase involved horizontal expansion between 1945 and 1970 with expansion of the frontier. Second phase focused on conservation modernization between 1970 and 1995 through technical change rather than land expansion accompanied by gradual modernization and diversification without land reform. Credit and price support policies were also implemented. Third phase that covers 1995 to 2014 concentrated on low government intervention in credit and price policies through leveraging monetary stability and substantially modernized and diversified agricultural sector in agribusiness and significant importance in the supply of domestic and international markets. As a result of these interventions, Brazil has recorded significant success in agriculture, thus increasing the sector's contribution to inclusive growth through job creation and other social benefits. A few of these are highlighted below.
- **Significant agriculture transformation and revolution.** Prior to the mid-1990s, Brazilian agriculture was highly dysfunctional and backward, in large part due to erratic government interventions. Significant transformation occurred within a short period from a traditional system of production characterized by low productivity with low use of modern technologies to a world leader and role model in agriculture.
- **Recognized global agricultural superpower.** Since 2008, Brazil has been the world's third-largest agricultural exporter (in value terms), following the United States and the European Union. Brazil also ranked second in the production and export of soybeans, beef, and poultry, and is a major producer of corn, cotton, and pork. The country is also the main producer and exporter of a long list of other commodities. Agricultural exports increased from \$24 billion in 2001 to over \$100 billion in 2012.
- **Removal of key bottlenecks to agricultural productivity.** Some of the limitations the country has removed are: transformation of acidic, poor soils into fertile land; "tropicalisation" of crops and animal production systems; and development of a Platform of Sustainable Practices.
- **Rising Agricultural Productivity.** Yield increased from 60% to over 200% between 1975 and 2009. The total factor productivity of Brazil's most efficient farms grew 4.4% annually between 1985 and 2006, suggesting 138% increased output over the period. The

strong growth rate includes annual productivity growth of 7.1% and 2.9% in the livestock and crop sectors, respectively.

- **Significant land redistribution.** Through the Agrarian reform program implemented by the National Institute for Colonization and Agrarian Reform, governments have settled over 1 million families of around 5 million people in farming colonies and reallocated hundreds of thousands of lands to the poor. Since the mid-1980s, there has been significant land redistribution with title to over 7.5 million hectares of land won, on which 370,000 families now live and run agro-ecological farming and other cooperative ventures, like a honey business or a tractor repair shop.
- **Effective public agriculture spending.** For every 1% increase in Embrapa's cumulative research investments during the period, the productivity growth of Brazil's most efficient farms improved by 0.2%.
- **High concentration of production in a small number of productive units.** Less than 1% of the farms produce over 50% of the gross income in agriculture, while almost 3 million farms or 66% generate just 3.27% of the gross income.

3.2 China

China has made significant progress in improving rural poverty and modernize its rural areas through agriculture with average annual growth of 4.5% in the recent past. This was achieved because the country accorded top priority to agriculture at all levels of government, taking it as its economic base since 1950s. Policy also focused on educating the farmers through effective research and extension services. The country has made improved farm productivity and rural income increase a key part of its development policy agenda since 1980s. China also employed technology extensively as a lever for stimulating inclusive growth through agriculture. As a result, the country has made significant progress as about 200 million smallholder farmers utilizing an average of 0.65 hectares are able to feed a population of almost 1.5 billion people.

China's rural financial institutions are channelling large volumes of financial capital to the country's agricultural sector as part of a comprehensive policy aimed at boosting the incomes of rural households. The country is making efforts to simultaneously remould rural banks and credit cooperatives into financial intermediaries that operate more like commercial banks and pressure these institutions into funnelling large amounts of cash to rural areas. Rural financial institutions have adopted many trappings of commercial banks, but they are still effectively controlled by the government, and lending decisions often reflect policy initiatives and development strategies of the government. The rapid rise in agricultural lending is one of many measures taken in recent years to solve China's "three rural problems," a phrase that refers to closing the widening gap between urban and rural incomes. China has pushed its Rural Credit Cooperatives (RCCs) to make more loans to small farmers, and some loans from state-owned commercial and policy banks are earmarked for agribusinesses and agricultural infrastructure projects.

Agriculture financing policy in China focuses on three pillars. The first pillar aims to generate income for farmers, the second targets to boost agriculture production capacity while the third focuses on providing advanced infrastructure for the rural areas that will benefit all rural dwellers. Several private and public channels exist for financing agriculture in the country. A few of these are highlighted below.

The Chinese financial system is characterized by a large banking sector, dominated by four large state-owned banks that have their own specialized role. These are: the Industrial and Commercial Bank of China which provides working capital loans to state industrial enterprises; China Agriculture Bank that specializes in agricultural lending; China Construction Bank which

provides funds for construction and fixed asset investment; and Bank of China that specializes in trade finance and foreign-exchange transactions.

In addition to these big four state-owned financial institutions, there exist several other minor financial institutions. prominent among these are: Policy banks such as Export-Import Bank of China); Second-tier Commercial banks such as CITIC Industrial Bank; Trust and Investment Corporations (ITICs); Agriculture Development Bank of China; Postal Savings Bank of China; Rural Credit Cooperative; Rural Commercial Bank; Rural Cooperative Bank; Township and Village Banks; Township and Village Bank; Rural Credit Companies; and Rural Credit Mutual Help Association. In addition to these formal agriculture financing institutions, there are a few informal financing methods that are mainly familial in nature. This financing model is very widespread and focuses on money lending, supply credit, and rotating saving and credit association. This financing system, though supplementing the formal financing system tends to crowd it out because of its low or zero interest rates. Added to these is what can be considered as quasi-formal agriculture financing emanating from micro credit companies, international development agencies and NGOs.

Broadly categorized in terms of sources, agriculture financing in China can be broadly divided into: **Bank Financing** that includes local and foreign commercial banks; **Informal Finance** that includes financing from informal sources such as a money lender or an informal bank; **Operations Finance** that includes **Trade Credit**; **Equity Finance**; **Investment Funds** that includes Investment funds or Special Development Financing or other State Services; and **Internal Finance** that includes Internal Funds or Retained Earnings, Loans from Family and Friends and the Other category². The specific financing schemes and types are described below:

- **Individual savings and informal borrowing.** Most farm investments and input purchases in rural China are financed by farmers' own savings. Most loans to rural households come from informal sources that include family, friends, private moneylenders, savings clubs, and pawnbrokers. Informal lending is not legal but is widely tolerated in many areas.
- **Rural credit cooperatives (RCCs).** Most formal loans to farm households are made by over 30,000 rural credit cooperatives (RCCs). RCCs accept deposits from local residents and make loans to households, businesses, and other entities. RCCs were set up in agricultural communes in the late 1950s by requiring each farmer to make a small cash contribution. After collective agriculture was disbanded in the 1980s, RCCs continued as the rural arm of the state banking system with an RCC serving each of China's 40,000 townships. Reforms in 2003 and 2004 placed them under provincial governments and merged them into county- or provincial-level RCC unions. RCCs can only operate in their home township or county. Some of the stronger RCCs are being restructured as provincial rural commercial banks or cooperative banks, and some of those have recently attracted foreign investors. RCCs are cooperatives in name only. Their ownership is unclear and members do not necessarily have any say in management.
- **Agricultural Bank of China (ABC).** Loans to agricultural enterprises come largely from the ABC, one of China's four state-owned commercial banks. It was created in the late 1970s to carry out rural policy, but became a commercial bank serving both urban

² Ayyagari, M., Asli Demirguc-Kunt, and Vojislav Maksimovic. 2010. Formal versus Informal Finance: Evidence from China. *The Review of Financial Studies*, 23(8): 3048-3097.

and rural markets after reforms in 1994. The ABC lends to agricultural enterprises, rural cooperatives, and village organizations, but not usually to individual rural households.

- ***Agricultural Development Bank of China (ADBC)***. Commodity procurement is supported by loans from the ADBC, formed in 1994 to relieve the ABC of its policy functions. The ADBC primarily lends to state-owned enterprises for procurement and storage of grain, cotton, and edible oils. The ADBC's role is diminishing as the government privatizes agricultural commodity marketing. The ADBC also makes loans for agribusiness and rural infrastructure.

Since the late 1990s, the government has taken numerous steps to reform and commercialize its banking system, but it was not until 2003 that it began a major reform of rural credit cooperatives. The ABC, like China's other state-owned banks, is being transformed into a profit-seeking commercial bank with the ultimate goal of being listed on overseas stock exchanges. The creation in 2003 of a bank regulator, the China Bank Regulatory Commission (CBRC), was an important reform of the financial sector with significant effect of agriculture financing. In recent years, RCCs in several provinces have been reorganized as rural commercial or cooperative banks and most other RCCs have been merged into county- or provincial-level unions. They have been given more latitude to offer higher interest rates on deposits (to compete with post offices and banks) and adjust interest rates on loans within a band around rates set by the Peoples Bank of China. Credit reporting services have just begun operating, but evaluation of loan applications is problematic due to falsification or absence of financial records (many transactions are still conducted in cash), unfamiliarity with risk analysis, and latent cronyism.

Chinese Central Government each year chooses one area to be addressed by the first policy document known as "The Number One Document". This addresses issues that occupy the number one agenda in China's policy priorities. In the past eleven years, the focus of this priority policy document has been consistently on agriculture. Based on this priority, the Central Government budget spending, public and private investment and subsidies have been largely deployed to the agriculture and rural sector of China.

The benefits of the focused agriculture financing have been very obvious for the country. First, the country achieved significant production growth over the years with 90 per cent growth in grain production, 2-fold increase in cotton production, 5-fold increase in oilseeds production, 30-fold increase in fruits production and 8-fold increase in meat production between 1978 and 2012. The country record bountiful harvest annually. In 2013, for instance, the annual gross grain output reached 0.6071 billion tons, up by 5.15 million tons, or 0.9% from the previous year. Supplies of livestock and aquatic products and vegetables also experienced similar increase.

Second, rural incomes have increased significantly. Between 1978 and 2012, farmers' real income has increased by 7 per cent annually from RMB133.6 to RMB7, 917. The annual per capita rural net income in 2013 stood at 9,892 yuan (US\$1,580), up by 996 yuan (US\$159), which represented a 9.2% increase considering price factors, compared to the previous year, and outpacing urban incomes. Given this performance, the Engel's Coefficient of rural households, that is, the percentage of income spent on food has been on a continuous decrease by 10.5% annually over 1978 – 2012.

Third, rural reform has advanced steadily. Reforms on the pricing mechanisms for cotton and soybeans were being piloted steadily, so is the reform on the transfer of rural land use rights, which has promoted farm operation with an appropriate scale. The piloting work for reform on rural land expropriation, the trading of collectively owned commercial land, and land reserved for rural homesteads is being deployed. Overall, the country has implemented land reforms, market reforms, tax and subsidy review, rural infrastructure development, and compulsory education in rural areas.

3.3 India

Agriculture finance assumes great importance in India because household savings are inadequate to finance farming and other rural-based activities. Added to this is the lack of synchronization between agriculture income and expenditure as well as high capital requirements for commercial agri-business.

- **Agriculture Financing Models in India:** Due to extension of institutional credit facilities since 1950 – 1951 the monopoly position of the village moneylender has been challenged. With the progressive institutionalization of credit, private sources now meet around 20 per cent of the short and medium-term credit needs of the farmers. Put together, about 80 per cent of the rural credit needs are met through institutional sources. There are moves to intensify the use of the co-operative system to provide short-term credit facilities, mainly for production purposes. There are five major sources of rural credit in India. These are: Co-Operative Credit Societies; Land Development Banks; Commercial Banks; Regional Rural Banks; and the Government. These are discussed below.
- **Rural Co-operative and Credit Societies:** This is arguably the cheapest and most important source of rural credit for farmers. The rural credit cooperatives can be broadly categorized into two: short-term credit cooperatives and long-term credit cooperatives. The short-term credit cooperatives are Primary Agricultural Credit Societies (PACs), District Central Cooperative Banks, and State Co-Operative Banks. On the other hand, the long-term credit cooperatives are Primary Co-Operative Agriculture, and State Co-Operative Agriculture. There has been increasing reliance on co-operative credit societies by the Government as the most important set of institutions for meeting the credit needs of the farmers. Thus, the government has provided significant support for these societies as a strategy to expand agriculture financing. This has resulted in significant success. For instance, while the co-operatives managed to meet mere 3 per cent of the credit needs of the farmers in 1950-51, they met over 40 per cent of the total credit needs of the farmers today.
- **Land Development Banks:** Land development bank (formerly known as land mortgage banks) mainly provide long-term loans to farmers against the mortgage of their lands at low interest rates over a period of 15 to 20 years. Farmers find borrowing from such banks attractive if costly land improvement programmes such as digging or deepening of wells are to be undertaken, if additional land is to be acquired through outright purchase, or if previous debts have to be repaid. Loans extended to farmers by this institution have been on the increase over the years with rich farmers being able to obtain the maximum loan from the banks because of large land holdings. Conversely, small and marginal farmers have not derived maximum benefit from such banks.
- **Commercial Banks.** Before nationalization of top 14 commercial banks in June 1969, commercial banking in India had an urban bias. They were mainly accepting deposits from the urban dwellers and making loans to trade and industry to the neglect of

agriculture and rural industries. The risky nature of agriculture made private commercial banks to shirk away from lending to the sector. Other challenges limiting agriculture financing by commercial banks include farmers' inability to provide collateral, high risk of recovering loans, financial illiteracy that made accounting of agricultural transactions by farmer's difficult, limited chance of loan recovery, and high transaction cost.

Nationalization of commercial banks in 1969 was used as a recipe for addressing these challenges and guarantee smooth flow of credit to agricultural activities. Commercial banks were given a special responsibility to lend 18 per cent of their total advances to agriculture within the quota of 40 per cent of priority sector lending. Commercial banks are now providing both direct and indirect funding for the agriculture sector on short- and medium-terms. The indirect financing focuses on provision of advances for the purchase of inputs like seeds and fertilizers. They also provide loans for other activities in the agriculture value chain that include infrastructural facilities such as storing and warehousing of agricultural produce, marketing, storage, distribution, transporting and repairing of agricultural implements. They also provide credit support for government agencies to procure food. Some of the special schemes through which commercial banks lend to agriculture are Small Farmers Development Agencies (SFDA) and Marginal Farmers and Agricultural Labourers (MFAL).

- **Regional Rural Banks.** These were set up by the government in 1975 to look into the special needs of small and marginal farmers, landless workers, rural artisans and the rural poor in general. There are currently around 196 of these institutions with almost 15,000 branches scattered all over India, covering all the tribal districts. The special feature of these specialized financing institutions is that they are targeted exclusively at the weaker sections of the rural community. Lending by the Regional Rural Banks averaged Rs. 400 per annum with around 92 per cent of this going to weaker sections of the rural communities.
- **Micro Finance Institutions.** Banks offer concessional interest rates for the rural credit. However, small farmers are unable to access them because of borrower-unfriendly products and procedures, inflexibility and delay, and high transaction costs, both legitimate and illegal. Thus, Non-Government Organizations (NGOs) are providing alternative means to enhance access to credit by the poor since the mid-70's. After pioneering efforts by some NGOs, in 1992 the RBI and NABARD encouraged commercial banks to link up with NGOs to establish and finance self-help groups (SHGs) of the poor. These institutions provide small loans to the poor at low interest rates without collateral. The experience of micro-finance scheme in India suggests that:(i) It is the cost effective way of financing the rural poor; (ii) The repayment rate of SHGs is more than 95 percent due to peer pressure; (iii) It reduces transaction costs of borrowers as well as lenders; and (iv) It inculcates the habit of thrift among members and provide timely credit.
- **The Government.** The Government has also provided short-term and long-term loans to farmers in times of emergency such as floods or famine. These loans known as Taccavi loans are offered at a concessional interest rate of 6 per cent with convenient mode of repayment. It can be repaid in several installments at the time of payment of land tax.

3.4 Lessons from the Comparator Countries

Nigeria has several lessons to learn from these comparator countries given their successes in the agriculture sector's contribution to inclusive growth. These lessons are highlighted below.

- **Agricultural policy can be right only if the underlying institutions are stable and effective.** Brazil has strong underlying inclusive institutional setting that determine and regulate in each period which actors are in power, what policy and non-policy instruments they possess and what their interests and motivations are. The strong presidential institutions with its accompanied robust checks and balances created a fiscal, monetary and political environment that makes the policies succeed.
- **Investment in agricultural R&D can be transformative.** For this to happen such investment must be conducted over the long-term and adapted to meet the demands of local farmers. The methods and inputs developed must be specifically adapted to the local conditions. That is the model being implemented by India and China.
- **Agriculture transformation is possible only through less interventionist agriculture policy.** State interventions should rather focus on removing restrictions and concentrating only on areas where market failures remained, such as research, insurance, coordination and precautionary stocks.
- **A good blend of increased public investment and key reforms necessary for sustained agricultural production and food self-sufficiency.** This is the combined factor responsible for increased agricultural productivity levels in Brazil relative to the rest of the developing world.
- **Persistence pays.** The agriculture revolution in Brazil, India and China was not a smooth one. Rather, the histories are full of reversals and unintended consequences. But the countries persisted and was willing to learn from past policy mistakes and errors. This persistence led to the success.
- **Agriculture reform must be holistic and well sequenced.** Brazil implemented a holistic agriculture reform first with creating an appropriate business environment through rule of law, political openness and economic stability. This was followed by establishment of inclusive institutions that is sufficiently empowered to drive the sector and attract private sector players. These are essential for the desired change in investment and growth in agriculture and food self-sufficiency.
- **Land reform is key to success.** The Brazilian and Chinese land reform provided an impetus to its agriculture reform and food self-sufficiency. Thus, land reform must cover all areas and all peasants with a view to empowering them to exercise their rights. These rights would include the rights to work, to food and land, and rights to landed property ownership.

4. Potential of Agriculture and Agribusiness for Job Creation in Nigeria

It is an obvious fact that despite decades of policy interventions instituted by successive governments in Nigeria aimed at improving agricultural productivity and engender positive impact on the economy through job creation and food security, the country has recorded very limited success, as it remains large net importer of food with existence of widespread underemployment and unemployment. These policy interventions have focused mainly on raising productivity and increasing the number and quality of jobs with a view to making them more regular, secure and less vulnerable. In recent times, these interventions have added youth flavour through the Agricultural Transformation Agenda which laid emphasis on making agriculture attractive to youths.

Motivated by the limited positive impact of years of policy interventions in the agriculture and agro-industry sector by successive governments in Nigeria, Ayinde, et al (2016) seeks to investigate the reasons for the limited success of these myriads of agriculture policy interventions in the country with focus on the rice and cotton sub-sectors.

The study employed field observation technique to obtain relevant information from relevant stakeholders through key informant interviews and focus group discussions. The stakeholders involved in the field interviews include farmers, crop processors, government officials, researchers, traders and financial service providers. The seven States where the fieldwork took place are Ebonyi, Ekiti, Kaduna, Katsina, Kebbi, Lagos and Zamfara States. It was found that the rice and cotton-textile value chains hold high potential for job creation in Nigeria due to its labour-intensive nature and as such have attracted significant government interventions over the years but with limited results.

One key government policy intervention over the decades has been import restriction that aims to insulate the agriculture and agro-industry sector from international competition. The study found that this action has rather fuelled smuggling than increase productivity. Demonstrable political support, political will and protection of the interests of the various elite factions within the political coalition are critical for the success of any government policy intervention in agriculture. Sabotage by powerful political groups led to derailment of agriculture sector reforms of successive governments, thus limiting their successes in terms of productivity growth, food security, and job creation. Failure of policy interventions is also traceable to the nature of the political settlement that promoted rent-seeking among the powerful factions of the ruling coalition that, in turn, undermined capacity of the political leadership to centralise rent generation and distribution, limiting their ability to effectively control rent-seeking.

Furthermore, the finding that there exist striking similarities in the outcomes of government interventions in the rice and cotton-textile value chain notwithstanding, several differences are discernible. This suggests the need for caution against adopting a generic policy remedy for the value chains. Other challenges identified that limit performance and success in the sector are: limited capacity of the bureaucracy to handle and process information, monitor actor behaviour, and articulate the vision for the agriculture industry; lack of political support from the ruling coalition; fragmentation and disorganization of the value chains; failure of policymakers to balance the competing interests of small-scale farmers and processors against those of the powerful elite, or the interests of domestic crop producers against those of importers; and lack of interagency coordination and networking among the stakeholders.

Based on the findings, the study recommends the development of a specifically tailored bureaucracy that is embedded in the industry and capable of obtaining and processing information, monitoring actor behaviour and articulating the vision for the industry. Institutionalization of the rice and cotton-textile value chain is also recommended through building networks within farms and firms and from farms through processing factories to markets. This will help address the current fragmentation and unorganized nature of players in the rice and cotton-textile value chains.

Agriculture is one of the most important sector in Nigerian economy because it provides employment for a large number of the population and stimulate overall economic development. Because of its importance, public policies since political independence have focused on this sector with a view to promoting food security, providing the needed agricultural raw materials to feed and develop the manufacturing sector, alleviate poverty through employment and income generation, and earn substantial foreign exchange. However, the potential of the sector remains far beyond maximization as the sector continues to decline in its role and contribution to national development.

Yet, the country has high potential to produce a wide variety of crops that include cassava, yam, corn, cocoyam, cow-peas, beans, sweet potatoes, millet, plantain, banana, rice, sorghum, and a variety of fruits and vegetable. Therefore, the production of these crops, hold high potential for job creation for the teeming unemployed labour force in agriculture value chain that include cultivation, processing and marketing. With these in mind, Ogbalubi and Wokocha (2013) examines the steady decline in agriculture performance and its potential contribution to job creation in Nigeria.

Three main findings stood out. First, agriculture sector performance since political independence has been on steady decline from 75 per cent contribution to the GDP in the mid-1960s to less than 50 per cent by the mid-1990s. The major factor that found to be responsible for this decline is commercial exploration of oil and gas with its attendant boom in the 1970's. Also accountable for the decline was poor funding evident in declining agriculture budget and actual spends and poor implementation of government agriculture-focused policies.

Second, agriculture was found to be the easiest routes to Nigeria's desired structural transformation and economic diversification because of the country's large natural endowment, easy production and processing that does not require sophisticated technology, and the potential increased productivity resulting from adopting appropriate technology for variety improvements, preservation and favourable fiscal incentives. Lastly, they found that agriculture sector has underperformed since political independence when measured on the grounds of metric that include employment generation and productivity growth.

To this end, several recommendations were made for repositioning and mainstreaming agriculture for sustained growth and effective job creation. First, provision of credit to smallholder farmers was considered imperative with a view to dealing with the challenges associated with lack of access to credit which is very rampant in the sector and dampen production and output. Second, there is need for provision of extension services through technical advice and counsel to the farmers. However, effective mobilization of the extension workers through efficient transportation is a precondition for success. Third, strengthen the partnership among national and sub-national governments and farmers to improve farmer access to agricultural land. Fourth, mechanization that will promote a production shift from traditional to more technologically innovative production system should be encouraged.

Fifth, to promote increased return to agriculture investments to smallholder and commercial farmers, price monitoring and stabilization should be promoted. An important benefit of this is that it would help eliminate middlemen and speculative activities that tend to impoverish farmers. Sixth, storage facilities should be provided to minimize post-harvest losses with a view to encouraging farmers to increase production and create more jobs. Seventh, encourage regional and State specialization in areas of comparative advantage. Lastly, treat agriculture as a national priority. This is important because of its sustainability of the agricultural sector as opposed to the exhaustibility of oil and gas. Government funding of the agricultural sector is one major way for the government to demonstrate prioritization of the agriculture sector.

Despite the decrease in proportion of youth unemployment in recent years as a result of several youth-focused employment interventions, the percentage share of youths in total unemployment remains high in Nigeria. But given its nature, the agriculture sector holds high potential for absorbing this large army of youthful and vibrant unemployed Nigerians. The sector provides excellent prospects for job creation, especially for the youths through well-targeted interventions aimed at transforming the sector.

To establish the potential offered by the agricultural sector in creating the needed employment for Nigerian youths, Adesugba and Mavrotas (2016) interrogates three important questions. The first question is whether the agricultural sector is able to provide jobs that are sufficiently attractive in terms of wage levels while simultaneously satisfying the job aspirations of today's youth so as to significantly reduce the rising youth unemployment facing the country. The second question examines whether the agriculture sector, indeed, hold this job creation potential and, if it does, establish what needs to be done to sustain the job opportunities created over a foreseeable horizon to meet the youth population growth. Lastly, the authors probed the real and potential policy instruments, incentives and training tools that can be used to transform the agricultural sector into a more dynamic and diversified job creation sector for the myriads of skilled, semi-skilled, and unskilled youths joining the labour force annually.

One main finding emanating from the study is that unemployment in the labour force is, indeed, on the rise with a higher proportion of these being the youths that have a combined estimate of over 1.5 million entering the labour market annually. The study also established that unemployment among women has consistently been above the national unemployment rate since 2010. To tackle the unemployment challenge, over 3.1 million jobs were created between 2012 and 2014 in the formal, informal, and public sectors. However, the total number of jobs created in all sectors was found to be decreasing. Several special job-creating interventions were deployed to create jobs for youths in agriculture. These include the Youth and Women in Agribusiness Investment Program (YWAIP), Youth Employment in Agriculture Program (YEAP) and several other capacity building and training programmes in agriculture. These interventions have recorded substantial success.

Based on its findings, the study made a number of far-reaching recommendations. It recommends promotion of education and youth vocational training in agricultural value chains through two fronts. One is incorporating well-structured skilled acquisition training for youths employed or contemplating employment in any part of the agricultural value chains while the second is revamping the agricultural education curriculum at all education levels with a view to preparing students of agriculture for the job market. The study advocates development of the rural non-farm economy by focusing on farm, non-farm and off-season activities that could help smoothen income and reduce unemployment and rural poverty.

Financial support is also advocated for youths that naturally find it more difficult to obtain credit from formal financial institutions while trying to set up agribusiness due to collateral issues. Financial support through government special interventions would help relax this constraint. Furthermore, agriculture value chain development is recommended as a strategy for deepening and diversifying job creation in diverse farm and non-farm activities within the agricultural value chain. Development of workforce capacity development through vocational training. This will require skills acquisition and development in relevant areas capable of promoting youth engagements in various agricultural activities. The land use governance that has been a major challenge constraining agriculture productivity should be addressed. This requires the reform of land titling issues in the country.

Recognizing unemployment as one of the most intractable challenges facing the Nigerian economy, Ayinde (2008) focused on investigating this phenomenon and the potential of the agriculture sector in tackling it. The author sets out to answer the following questions: Is there linkage between the Nigerian agricultural growth and unemployment? Is there any significant impact of the growth rate of the agricultural sector in alleviating unemployment among urban

and rural dwellers? To answer these pointed questions, the study examines the national unemployment trend in the Nigerian urban and rural economy. It also analyzes Nigerian agricultural growth rate and examine the dimension and linkage between agriculture and unemployment.

The author found that unemployment rate is generally higher in the urban areas than in rural areas possibly due to rural – urban migration and the fact that work lay-offs usually occur in the urban areas. Employing the Granger causality test, the author established that a unidirectional causation between agricultural growth and national unemployment and between urban unemployment and agricultural growth. Furthermore, it is established that a unit increase in national unemployment results from a decrease in agriculture growth by 0.152%. This means that a decrease in growth leads to increase in national unemployment. It was also found that urban unemployment is positively correlated to agricultural growth, implying that an increase in urban unemployment will improve agricultural growth.

The author sees the solution to the identified challenges as coming from two policy actions. First is undertaking huge intervention in agricultural production and its sustainability to avoid unemployment persistence in the sector. And the second is the need to target poverty alleviation interventions at increasing agricultural growth.

Manyong et al (2005) seeks to identify the constraints and opportunities for increased commercialization and investment in Nigeria's agriculture. The study primarily provided USAID/Nigeria, other donors, the US Government and private sectors with the analytical basis for USAID to design its new Agricultural Policy Strategy through effective prioritization of its engagements in Nigeria. The purpose of these engagements was to unlock the identified constraints to commercialization and investment in the agricultural sector towards the overall goal of achieving sustained economic growth. Ultimately, the study seeks to unearth the challenges facing Nigerian agriculture with a view to achieving benefits that include: enhanced food security; increased competitiveness of products in the domestic, regional, and international markets; sustainable environmental management; and poverty alleviation.

Based on this objective, the study focused on: constraints taxonomy; constraints domain characterization; constraints cause identification; constraints function transformation; constraints range characterization; constraints impact analysis; constraints persistence analysis; identification of gainers and losers from constraint persistence; policies, regulations and institutions analysis; investment priority determination; comparative advantage analysis; and improving investment climate in Nigeria. Attention was also placed on strategic options for supporting the US President Initiative to End Hunger in Africa in addition to identifying areas of intervention to promote priority commodities in different zones of the country.

The findings of the study are highly illuminating. First, it was found that the agriculture sector growth performance shows mixed results with marked unstable or fluctuating trends. The share of agriculture in both aggregate GDP and non-oil GDP was found to have increased only marginally over the period covered in the report (1981-2000). The share of total bank credit extended to the agricultural sector first increased rapidly between the 1981-85 and 1991-95 sub-periods and then declined in the 1996-2000 period. It was also established that the share of Federal Government's total capital expenditure in agricultural sector declined almost persistently over the period. Furthermore, the share of total labour force employed in the agricultural sector also declined over the period. This mixed performance was probably due to policy instability and inconsistencies in policies and policy implementation.

Second, several factors constraining agriculture performance were identified. These can be broadly categorized into technical constraints, resource constraints, socio-economic constraints and organizational constraints. Specifically, these are: infrastructural constraints ranked first by more than 90% of respondents throughout the Federation. These involve the bad or poor state of roads, poor processing facilities and marketing outlets, epileptic power supply, and poor state of telecommunication facilities; financial, technical, and economic constraints (>80% of respondents); macro-economic policy and socio-cultural constraints (>70%); labour, environmental, and political constraints (>50%); micro-economic policy, institutional, health, and land tenure constraints (<50%). Severity of these identified constraints varied widely across the regions, except for infrastructural constraints that appear similar.

Third, the authors identified the constraints to agricultural policy effectiveness. These include policy instability, policy inconsistencies, narrow-based policy formulation, poor policy implementation and weak institutional framework for policy coordination.

Fourth, the authors' investigation of the causes and sources of persistence of the identified constraints revealed very interesting findings. For example the persistence of financial constraints to investment in agriculture were traced to poor credit policy, ineffective policy implementation, high interest rate, and unstable exchange rate. Persistence in political constraints was linked to poor leadership, political instability, poor governance, and non-participatory governance. Lastly, technical constraints were traceable to inconsistencies in agricultural input policies that constrained producers, including small-scale farmers to acquire modern farm inputs.

Fifth, the review of past investment trends reveals that both domestic and foreign private investment flows into Nigerian suffered a declining trend between 1970 and 1985. Expressed as a percentage of GDP, gross investment in the economy first increased from about 17 per cent in 1970 to about 26 per cent in 1975, but declined to about 24 per cent in 1980 and to 12 per cent in 1985. A highly correlated pattern was established between domestic and foreign private investment and with the changing states of political and policy instability over the period investigated. The share of agriculture in foreign net private investment was very low, averaging less than 4 per cent between 1981 and 2000. Furthermore, agriculture's share in cumulative foreign investment declined almost consistently over the period covered, from about 2 per cent in the 1981 – 85 sub-period to about 1 per cent in the 1996 – 2000 sub-period.

Sixth, gainers and losers from the persistence of constraints were established. The first set of gainers are government officials (political appointees, policy makers, policy implementers, and lower cadre civil servants) through receipt of financial kickbacks from suppliers and contractors. The second set of gainers are foreign investors, technical partners, and foreigners who take advantage of the precarious situation by importing varieties of goods and make undeserved profits. Conversely, the losers comprise wide-ranging stakeholders. These are entrepreneurs, marketers and processors affected by the area of low capacity utilization, high cost of power generation, and reduced output. Others are bankers and lenders affected by the persistence of financial constraints. The nature of these losses includes high transaction costs, low investment, lack of investible capital, and loss of employment. Lastly, the farmers also lose as a result of low access to modern inputs, reduced outputs, low income, and high poverty incidence.

Seventh, the study identified thirteen areas that domestic and foreign investors are willing to stake invest in the Nigerian agricultural value chain. These are: input production, supply enterprises, livestock production, fisheries, forestry, commodity processing, and storage

enterprises. Others are commodity marketing, agro-industry, manufacturing, agricultural commodity export, and agricultural support services. Related important finding in this respect is that while agricultural investments are fairly attractive to domestic investors, they are less attractive to foreign investors.

Eight, the study identified 32 commodities in which different regions are perceived to have a comparative advantage in the global, regional and domestic markets. These commodities were grouped into five categories, namely, staple crops (9 commodities), industrial crops (12 commodities), livestock (5 commodities), fishery (3), and forestry (5).

Ninth, ex-ante evaluation of returns to investment for 26 commodities was conducted based on data availability. Cassava emerged as number one commodity to invest in for estimated gross returns of \$570 per year over the period of 17 years from 1999 to 2015. The following nine commodities in order of ranking are yam, maize, millet, groundnut, rice, sorghum, poultry, leafy vegetables, and cowpea. The second group of priority commodities are pepper, beef, oil palm, fish, melon, tomato, soybean, onion, rubber, and cocoa. At the bottom of the rank are ginger, pork, goat, mutton, benniseed, and cashew nut.

Lastly, significant regional differences were recorded on returns to investments. For root and tubers and in decreasing order of returns, cassava gives highest returns in North-central, South-south, South-east, and South-west. Yams rank high in North-central, followed by South-south. The patterns for cereals are uneven with rice being exclusive to North-central; maize in Northwest, North-central, and South-west; millet is profitable only in North-west and North-east; sorghum and benniseed are for the three northern regions; and grain legumes (groundnut, soybean, and cowpea) give high returns in the three northern regions. Tree crops like oil palm (South-south and South-east), cocoa (South-west), and rubber (South-south) produce better in the humid regions of the country. In contrast, cashew nut and ginger are demonstrated best returns in the North-central and North-west. Livestock also indicates a specialization across the regions with ruminants (cattle, mutton, and sheep) being more important in the three northern regions, although goat has a smaller but significant presence in the southern regions. Pork and fish are important in South-south while poultry is found everywhere with a major presence in South-south.

Based on the far-reaching findings, the authors made very useful recommendations that cut across the entire agriculture and agro-industry value chain. Stakeholders in the agriculture sector are encouraged to develop an agriculture development model that links producers to processors and consumers along the value chain. The need to invest in commodities with high returns to investment is also emphasized as a strategy for encouraging local and foreign investment in agriculture. To mitigate the possible negative impacts of agriculture commercialization on gender and equity, and women involvement in downstream activities, government especially is encouraged to invest in better education for girls and women empowerment through income-generating activities. Similar other mitigating measures should also be developed to contend with other challenges such as environmental issues emanating from agricultural commercialization.

The government is urged to develop sector-specific policies and strategies for priority commodities as a strategy to attract investment into the sector through the promotion and creation of lobbying groups, design and adoption of grades and standards that tilts in favour of utilization of the commodities, and the creation of an enabling macro-policy environment in the country. Furthermore, the need to consider developing and investing in three regional

agricultural development hubs is emphasized. These are the northern, central, and southern development hubs with each focusing on a group of priority commodities. Ultimately, the hubs should be designed to integrate the objectives of wealth creation, food security, sustainable development, equity, and gender. Finally, the authors thought that food security could be enhanced through increasing agricultural productivity, reducing post-harvest losses, promoting a database for early warning systems, and building capacity of government officials in monitoring the status of food security in the country.

Motivated by the myriad of challenges facing agriculture and agribusiness in Nigeria despite the importance of the sector and several policy interventions aimed at improving the sector over the years, Tersoo (2013) set out to identify and characterize these challenges with a view to providing implementable policy recommendations for dealing with them. These challenges, the study posits range from the vicissitudes of nature to the bizarre vagaries of political inconsistencies and discontinuities. The most prominent of these challenges are unavailability of financial capital, lack of entrepreneurship, management ability and technology, inadequate socio-economic infrastructure, uneven spatial development, participation by foreigners in industrialization process and the spatial problem of small-scale industry.

The author identified several constraints to agribusiness in Nigeria. Prominent among these are poor policy articulation; inadequate working capital; lack of appropriate technology; inadequate infrastructure; and farm – level constraints, mainly seasonality crises, geographical dispersal of farmers, and lack of hegemonic production. Despite these challenges, however, the study found that farm, off-farm and processing components of agribusiness are capable of generating jobs, providing income, reducing poverty and increasing infrastructural growth in Nigeria.

To achieve this high potential of agriculture for inclusive growth, the author recommended that the government develop a robust political will by focusing on incentives that will serve as enabler and promote level playing field for private sector-driven agribusiness. It is also recommended that the country should develop a sound agribusiness Ideology which may require learning from successful peer countries like USSR's "AGROGOROD", Chinese "COMMUNES" and Israeli "AGRINDUS". Government is also advised to ensure proper agriculture policy framework through providing clear and consistent policy direction and facilitator to promote private sector involvement in agribusiness. This will assure certainty and further instil confidence for private sector engagement in agribusiness. Next is the need to improve crop marketing through promoting the involvement of agribusiness firms in direct purchase of commodities from farmers. The advantage of this is that it helps reduce transaction costs, assure farmers of market for their produce, and incentivize the firms to provide direct support to the farmers for improved quality and quantity yield. Lastly, government should provide relatively cheaper finance for agriculture and agribusiness.

Several studies have shown that African countries are yet to achieve the conditions for dynamic agro-industrial development and the promotion of agribusiness, albeit some progress have been made. This results from inability to fully meet the preconditions for implementation as well as willpower to implement identified reforms. Drawing on this background, Akande (2012) within the context of a bigger project that focus on examining the success factors propelling agribusiness and agro-industrial development in African countries, focused on Nigeria, among the eight countries selected for the study.

The five crucial areas of agribusiness development examined are: the rationale for agro-industry and agribusiness promotion; the structure and the dynamics of agribusiness development; the

scope and coherence of policies for agribusiness development; the role of key policy factors for agribusiness development; and the importance of national visions, action plans and operational plans in moving agribusiness forward.

The main submission of the study is that agro-industry plays a fundamental role in employment creation, poverty reduction and income generation and overall economic growth and development in Nigeria. The sector is highly informal in nature with estimated average of 60 per cent of workers in food and beverages employed in the informal economy. The jobs created in this sector are both direct and indirect, cutting across the entire value chain. Since majority of Nigerians live in rural settings, agro-industry holds high potential for pro-poor growth strategies. Indeed, one-fifth of the rural non-farm employment are found in agro-industries in addition to other agriculture-based employment in retailing, equipment sale, logistics, trade in agriculture produce and commodities, etc.

A gender dimension to the job creation impact of agro-industry was found, establishing between 50 and 90 per cent female employment in agro-industry in non-traditional, high-value agro-chains such as horticulture, fruits and fish products. The downside of this, however, is that the women so engaged are relegated to vulnerable jobs that are seasonal, temporary and casual in nature. It was further established that rural non-farm household earnings in agro-industry, which complement agricultural wages account for significant share of household income, up to between 30 and 45 per cent. The importance of this is that it helps households diversify income sources, de-risk earnings from seasonal agriculture activities, smoothen consumption pattern over time, and reduce rural inter-generational poverty.

The author recommended that policymakers should focus on competitiveness of the entire agro-industry value chain rather than only on agriculture productivity. The importance of upgrading and modernizing agro-industry based on four cardinal points and processes is also emphasized. Also underscored is the need for value chains development in areas of comparative advantage. This will require identifying commodities with value chains where the country has comparative advantage and can excel in production and processing over the short, medium and long-term. To this end, the author identified fourteen potential produce for value chain development. These are rice, cassava, wheat, cocoa, cowpea, groundnuts, oil palm, rubber, *Jatropha*, maize, soybeans, cotton, tomato and sugarcane.

Other recommendation include promoting science and technological innovations and human capacity for agro-industrial development, developing the export market and promote trade at regional and international levels, promoting agro-industry infrastructure development and access to sustainable energy, and promote private enterprise and foreign direct investment (FDI) in agro-industries.

The recommendation to accord indigenous technology a prominent role deserves much prominence. This will form part of a larger efforts aimed at improving the technological base and innovation capacity of the agro-industry. Intensive use of indigenous technologies should also be considered for the agro-industry sub-sector and integrated into activities of institutions focusing on technology development. This is imperative because indigenous technology is a necessary condition for building successful technological capabilities and sustaining domestic efforts that would effectively adapt foreign technology.

5. Agriculture and Inclusive Growth

Okonkwo, Uwazie and Uwazie (2015) are motivated by the observed rapid and intensive pace of disequilibria in the Nigerian ecosystem since post-civil war in 1970 that is due mainly to increasing exploration and exploitation of crude oil which lead to increasing demand for other natural resources such as food, water, timber and fibres. They are concerned by the irreversible losses of global biological diversity and services provided by the ecosystem resulting from excessive exploitation of these resources. Some of the ensuing challenges they observe include negative effect on human well-being, threat to survival of many communities with obvious negative outcomes in the Niger Delta, desertification and overgrazing in the North, erosion, deforestation and surface water pollution in the South.

The combined effect of these challenges is continued exacerbation of the living condition of many Nigerians especially the rural population who live in the fringes. Thus, they are worried that many Nigerians experience challenging socioeconomic conditions that include high unemployment rate, near total absence of power, dysfunctional education and health sectors and increasing poverty rate of well over 60 per cent. The authors, therefore, aimed to examine the importance of paradigm shift into green economy and green growth in Nigeria that would lead the country to sustainable and inclusive growth and development.

The study found that agriculture in Nigeria is threatened by several challenging environmental outcomes that include continued loss of biodiversity and ecosystem services, depletion and erosion of top soil nutrients, increasing scarcity of freshwater, aggravated water pollution caused by poor nutrient management, and hazardous chemicals release, disposal, emissions and waste. However, they found that adopting sustainable production and sustainable farming techniques hold high potential for raising agricultural output in the medium- to long-term. This gives room for improved well-being and welfare for the farmers and facilitate access to international supply chains for the country. Overall, it is expected that there will be increasing access to income, output, and general well-being of over 50 per cent of the nation's population living in the rural areas.

In specific terms, the authors recommended creation of institutional capacity to achieve integrated environmental and economic policies. Also recommended was promotion of institutional capacity capable of creating a system of environmental indicators for measuring and monitoring the benefits of natural capital investments. Lastly, the authors believed that adopting green economy as an economic development strategy will strengthen the role of agriculture in promoting inclusive growth.

Despite the robust growth of the Nigerian economy over the recent past, poverty is still on the increase. This demonstrates the need for a structural shift in production from the current monolithic oil-based economy to a more plural one with agriculture as the lead sector. Agriculture has the highest poverty incidence with poverty being rural biased as over 70 per cent of the nation's poor live in rural areas. This implies that tackling poverty is synonymous with tackling agricultural poverty and underdevelopment. Furthermore, while the agricultural sector may have in recent years contributed significantly to improved growth performance, its actual contribution appears to be far below its overall potential. Puzzled by the poor performance of the sector despite the plethora of literature on the theoretical relationship between agriculture and inclusive growth and lack of consensus, Oyakhilomen and Zibah (2014) undertook to establish empirically the nature of the relationship. This is especially expedient because empirical investigation of the relationship between agriculture and growth with emphasis on rural poverty in Nigeria is yet sparse.

It was established that the potential of the agricultural sector to significantly reduce poverty in Nigeria is enormous. This emanates from the country's agriculture potential that include 68 million hectares of arable land; fresh water resources covering about 12 million hectares, 960 kilometres of coastline and an ecological diversity which enables the country to produce a wide variety of crops and livestock, forestry and fisheries products. Thus, the sector accounts for over 40% of total GDP and employs about 60% of the active labour force. Employing unit root tests and co-integration techniques, the study found that there exists a significant short- and long-run relationship between agricultural production and economic growth in Nigeria. It is predicted that all things being equal, a 1 per cent increase in agricultural production will increase economic growth by about 3.4 per cent.

Based on the findings, the authors proffer three main recommendations. First, the government is encouraged to develop appropriate policy measures to diversify the economy. This requires well thought out and well-structured investments from all levels of government as well as through partnership with the private sector and donors. Second, agriculture should be prioritized as a pivot to economic progress and poverty reduction. This is a feasible option given the sector's capacity for poverty reduction because a large population relies on agriculture as a means of livelihood and source of income. Lastly, government is encouraged to develop and implement pro-poor policies that are specifically designed for alleviating rural poverty.

Nigeria is blessed with abundant land and water resources that could make agriculture the engine of sustainable and inclusive growth. However, the high potential of the sector remains largely untapped and unrealized. This is evident from the country's low and stagnant agricultural productivity, predominantly subsistent production system, dependence on the vagaries of weather condition, ineffective agricultural development policies due to the fact that they are either being misguided or overwhelmed by macro policies affecting inflation, exchange rates, and the cost of capital. Not oblivious of this fact, the Federal Government has initiated several intervention programmes aimed at modernizing agriculture and agribusiness. Ehui and Tsigas (2009), therefore, seeks to estimate and analyse the growth potential of agriculture in Nigeria, using the Global Trade Analysis Project (GTAP) framework and general equilibrium model.

The results show that even though a 1 percent technological progress in the oil sector results in the largest welfare gains in dollar terms (\$142.72 million) in Nigeria, when the model abstracts for size, several food and agricultural sectors have a value that is higher than that that of the oil sector is recorded. Indeed, some agriculture sub-sectors such as cattle, fruit and vegetables outperform some of the oil and manufacturing sectors on return to investment. It was also established that technological improvements related to unskilled labour produced the highest returns in agriculture compared to any other sector for that matter. In the manufacturing sector, for example, the highest returns are obtained from capital-related technological improvements.

Recommendations made by the authors include the need to avoid discrimination against agriculture and channel significant investment into agriculture. This is based on the submission that the sector has a very high potential for employing people, providing food security and earning (conserving) foreign exchange.

Nigerian economy is experiencing a phenomenon that can be rightly described as 'jobless growth'. This is informed by the high and impressive growth that averaged almost 7 per cent over the past decade but that has not translated into significant social and human development outcomes like job creation, and reduction in poverty and inequality. The economy is also highly

vulnerable given its high dependence on the oil sector which accounts for about 70 per cent of government revenues and 85 per cent of exports.

Deriving from this background, therefore, Ajakaiye et al (2016) seeks to deepen understanding of the nature of Nigeria's non-inclusive growth. They also aim to identify the potential limits and constraints to the country's experience on inclusive growth and elucidate on the likely domestic and external economic growth opportunities available for the country in the medium- to long-term. Lastly, the study outlines how these opportunities can be better exploited for sustained inclusive growth.

The authors established that when considered both in absolute figures and proportion of people, the agricultural sector employs around 50 per cent of the Nigerian labour force. Output per capita of workers in the sector increased very marginally over the years. Second, it was established that the growth in Nigeria is, indeed, a jobless one because it was not accompanied by satisfactory rate of job creation with growth of 4.4 per cent and 2.3 per cent for the period covering 2010 – 2014 and 2005 – 2009, respectively. Over the two periods to 2014, overall employment in the agricultural and manufacturing sectors fell significantly.

The number of people employed in the agricultural sector was found to fall even faster over time while that of manufacturing slowed from -22.97 per cent between 2005 and 2009 to -7.86 per cent between 2010 and 2014. Agriculture consistently recorded the largest negative contribution of 4.12 per cent and 4.27 per cent to the change in the employment rate in Nigeria over the 2008 – 2009 and 2010 – 2014 periods, respectively. Agriculture is also established to have less employment-intensive with elasticity of 0.48, albeit better than manufacture's insignificant 0.30, while services is found to be more employment-intensive at 0.85.

On the whole, the challenge of 'jobless growth' in Nigeria was traced to more underlying challenges that include low industrial base, infrastructural deficits, poor governance and weak institutions, and insecurity.

Emanating from the findings, the authors recommend promotion of technological upgrade of the manufacturing sector in general and labour-intensive components in particular. The need to articulate, effectively implement, and regularly monitor and evaluate the impacts of service sector modernization programmes was also emphasized with special focus on the distributive trade sub-sector given its characterization by informality and low productivity. Furthermore, it is suggested that resolute commitment to increasing agricultural productivity should be made through sustained massive support for agricultural research and extension, mechanization, commercialization of technologies, and enhanced value addition through effective support for agro-processors and agri-businesses. Potential lessons could be drawn from pace-setter countries like Brazil, China, India, and Malaysia.

Moreover, it is recommended that the entrepreneurial potential of the youth population be developed and harnessed for growth. Youth skill building institutions should be leveraged to achieve this with special targeting of the poor and vulnerable in the society. Examples of institutions that need to be built and strengthened include post-secondary trade schools, post-tertiary education skill building institutions, and innovative public works programmes. Lastly, cooperation among all levels of government (federal, state, and local governments) should be encouraged in efforts to improve rural and urban infrastructure and develop human capital that are essential for tackling the unemployment situation in the country.

6. Role of Finance in Promoting Employment in Agriculture

Various agriculture stakeholders in Nigeria are undertaking different interventions in the sector. For instance, successive governments at national and sub-national levels in Nigeria, through the Ministries of Agriculture and Rural Development and Finance, have undertaken various agriculture financing interventions over the years. Similarly, specialized government-owned financial institutions like the CBN, Bank of Agriculture (BOA) and Bank of Industry (BOI) have also been involved in financing different activities in the agriculture value chain. Also involved are development partners and profit-oriented deposit money banks and organized private sector. Value chain financing has also been recommended as a solution to promoting inclusive growth through agriculture and agro-processing (see UNIDO, CBN and BOI 2010). A few of these interventions are briefly reviewed below.

6.1 Government Appropriations

Between 2008 and 2012, the total agriculture expenditures in Nigeria by Federal and State Governments amounted to a cumulative total of ₦1.1 trillion (Table 1). This comprises both recurrent and capital expenditures. Of this amount, the Federal Government spent ₦639.7 billion or 58.4% of the total while the States are responsible for the balance.

The percentage of capital spending on agriculture as a percentage of total capital spending by the Federal Government was very encouraging, reaching as high as 11 per cent and 12 per cent in 2008 and 2009, though with steady decline to 7 per cent in 2012. Similar pattern is observable for the share of agriculture as a percentage of total spending that stood at 5.6 per cent in 2008 but with steady decline to 2.3 per cent at the end of 2012.

It is noteworthy that State Governments are equally allocating a good percentage of their spending to financing agriculture. Around 4 per cent of the total capital budget allocations of the State Governments were devoted to funding capital agricultural activities in 2009. However, similar to the Federal Government spending pattern, this percentage declined steadily to 1.8 per cent in 2012. The share of agriculture spending that was 4 per cent in 2009 also declined to 1.8 per cent in 2012.

This analysis reveals that Federal and State Governments need to devote more fiscal resources to direct agriculture financing. Granted, several other activities such as infrastructure development, business environment regulation and similar activities may be contributing indirectly to improving the sector, more direct approach through innovative interventions involving the use of budget instruments would go a long way to improve the state of agriculture financing in the country.

Over the years, there has been concern about the impact of government policy on agriculture and its ability to foster inclusive growth, especially through employment creation. Thus, a few studies have focused on this area with a view to establishing whether the impact is positive or negative.

Ebere and Osundina (2014) was fascinated by the fact that government expenditure is arguably the single most important policy instrument at the disposal of the governments of most developing countries to promote inclusive growth generally and in agriculture in particular through equitable distribution of resources. The channels through which this redistribution takes place is the improved technology, higher human capital development and accumulation,

better and more efficient infrastructure development, and improved enabling environment achieved through well directed government expenditure.

The authors set out to examine if, holding all other things constant, agriculture has significant impact on growth based on the importance accorded it in the country's Vision 20:2020. The focus of the investigation was the effect of fiscal spending on the agriculture sector and how such spending impacted on the sector and ultimately on economic growth. The study adopted a time series approach using an Ordinary Least Square (OLS) technique over 33 years.

Table 1: Government Financing of Agriculture in Nigeria

	2008	2009	2010	2011	2012
Federal Government					
Recurrent Expenditure	2,117.40	2,127.93	3,109.40	3,314.51	3,325.18
Agriculture	65.4	22.44	28.2	41.2	33.3
Capital Expenditure	960.9	1,152.80	883.9	918.5	874.8
Agriculture	106	138.9	78	62.9	63.4
Total Expenditure	3,078.30	3,280.73	3,993.30	4,233.01	4,199.98
Agriculture	171.4	161.34	106.2	104.1	96.7
State Governments					
Recurrent Expenditure	1,591.85	1,426.06	1,648.39	2,055.85	1,664.27
Agriculture	44.27	59.34	52.8	42.5	33.42
Capital Expenditure	1,455.70	1,284.16	1,522.40	1,375.29	1,965.30
Agriculture	46.71	52.19	53.5	35.1	35.39
Total Expenditure	3,107.82	2,776.91	3,266.19	3,542.04	3,844.93
Agriculture	90.98	111.53	106.3	77.6	68.81

Source: CBN Database

One major finding of the study is that there is, indeed, a positive relationship between agricultural output, government expenditure and GDP. It was further established that fiscal spending has had significant impact on agriculture sector development and consequently on economic growth. Challenges limiting effective performance of the sector that were identified include infrastructure deficiency and limited finance.

The authors recommended increased fiscal expenditure on agriculture. It also recommended that farmer enlightenment, infrastructure development, and extension services should be accorded prominence and priority in fiscal spending.

Efforts have also been made to examine the impact of trade liberalization on agriculture sector performance and its potential for job creation. Anowor, Ukwani and Martins (2013) falls among

these categories of studies. The authors attempt an examination of the impact of trade liberalization on agricultural performance in Nigeria with special focus on export sub-sector using time-series analysis.

6.2 Central Bank of Nigeria (CBN)

The CBN has stepped in to fill a major void in development financing, with strong focus on agriculture to enable the sector play its job-creating potential, playing a role of development financial institution as a result. As far back as 1977, the CBN debuted the Agriculture Credit Guarantee Scheme Fund (ACGSF), which aims to provide agriculture financing support for individual and corporate farmers with a view to improving employment in the sector. Ever since, the CBN has developed and implemented several other interventions that include Commercial Agriculture Credit Scheme (CACs), Nigeria Incentive-based Risk sharing System for Agricultural Lending (NIRSAL), Real Sector Support Facility (RSSF), SME Credit Guarantee Scheme (SMECGS), SME Re-structuring and Refinancing Facility (SMERRF), Micro Small and Medium Enterprises Development Fund (MSMEDF), Anchor Borrowers' Programme (ABP), etc. See Annex 1 for details of these and more interventions, their features and performance.

The CBN plays this role as part of its role in contributing to sustained inclusive growth and transformation of the Nigerian economy. Given its nature, the agriculture sector has not been capable of attracting the needed financing that could radically transform the sector. Thus, the CBN has been designing policies, schemes, programmes and innovative financing products that are capable of delivering financing services in an effective, efficient and sustainable manner. These initiatives mainly target agricultural sector directly and through indirect channels by influencing rural development and micro, small and medium enterprises.

The interventions are in categories: while some make government funding available to money banks for on-lending to farmers and agriculture enterprises such as CACS, MSMEDF, ESF, others work by sharing risks with Deposit money banks. ACGSF, GES, NIRSAL, and Mechanization Financing Framework are in the latter category. These interventions also vary in their target markets from small-scale enterprises to commercial farmers. It is important to note that some of the features as indicated below have been modified by the bank to suit its risk acceptance criteria and may not be as exactly as stated in the guidelines.

6.3 Government-Owned Development Finance Institutions

6.3.1 Bank of Agriculture (BoA)

This is Nigeria's foremost agricultural and rural development finance institution established in 1972 as Nigerian Agricultural Bank (NAB). The key mandates of the institution are to: provide credit support to all activities in the agricultural value chain; provide non-agricultural micro credit to the poor segment of the society comprising rural artisans, petty traders; capacity development for the promotion of co-operatives and agricultural information systems; provision of technical support and extension services; and boosting opportunities for self-employment in the rural areas to stem rural-urban migration.

BoA has the mandate to provide low cost credit to smallholder and commercial farmers, and small and medium rural enterprises. It is also mandated to provide micro financing to small and medium scale non-agricultural enterprises. All of these are aimed at ensuring effective delivery of agricultural and rural finance services on a sustainable basis to support the national economic

development agenda, including food security, poverty reduction, employment generation, reduction in rural to urban migration, less dependency on imported food items, and increase in foreign exchange earnings.

The credit function of BoA involves direct lending to qualified loan applicants that are engaged in agricultural and non-agricultural small businesses, on-lending to issuing organizations, collaboration, and monitoring of the flow of ground level rural credit. The on-lending function involves undertaking cooperative credit structure at local and state government levels as well as rural micro finance banks.

Key achievements of the Bank are: disbursement of ₦41 billion to over 600 enterprises across Nigeria in the last 10 years; disbursement of ₦3 billion on-lending facilities to about 12 states of the federation; disbursement of ₦4 billion to about 30,000 beneficiaries, collaboration with 30 institutions, savings mobilization with up to 1.8 million account holders; capacity building activities for about 2,000 executives selected from 600 cooperatives; strengthening of market information; and agriculture extension and advisory services to a wide range of farmers.

6.3.2 Bank of Industry (BoI)

BoI is Nigeria's oldest, largest and most successful development financing institution. It was established as Nigerian Industrial Development Bank (NIDB) in 1964 with £2 million authorized share capital and later reconstructed in 2001. Today its authorized share capital is ₦250 billion. Some of the key products related to agriculture financing being implemented by BOI are: Matching Fund (BoI/State matching Fund and BoI/Dangote Foundation); BoI/CBN Intervention Fund; Cassava Bread Fund; Cottage Fund; FGN Special Intervention Fund for MSME (NEDEP); National Programme on Food Security; Rice and Cassava Intervention Fund; Sugar Development Council Fund; NAC Fund; Cement Fund; Cottage Agro Processing Fund; Fish Farming and Processing Fund; and Graduate Entrepreneurship Fund.

7. Role of Government Policy in Promoting Employment in Agriculture

The Federal Ministry of Agriculture and Rural Development (FMARD) and Federal Ministry of Finance (FMF) are the government organs responsible for designing policy interventions and incentives for promoting agriculture for inclusive growth in Nigeria. Some of the policy interventions and incentives provided by these government institutions and departments aimed at enhancing availability of credit for all farmers and agribusiness are highlighted below.

Import substitution. This aim to discourage importation of commodities and products for which Nigeria has comparative advantage in producing and processing. This policy thrust saves scarce foreign exchange and boosts local production and processing. The ultimate goal is to attain self-efficiency. Targeted commodities and products include tomato paste/concentrate, tropical fruit concentrate, cassava starch, glucose, etc. Nigeria's import of tomato concentrate is estimated at ₦18 billion annually which is saved for the country. Import substitution policy influences the financing of investment in agriculture that skews in favour of a focal commodities being promoted under the government import substitution policy.

Tariff and surcharge. Appropriate tariff and surcharge are levied on a number of commodities partly to discourage importation and encourage local production and processing. The commodities in this category include rice, sugar, maize, etc. The tariff regime being implemented is exerting positive effect on the agriculture sector evident in increased local production.

Zero duties on agricultural equipment and machines. This policy facilitates importation of critical agricultural equipment and machines that are not produced or manufactured in Nigeria. This is with a view to reducing cost of production and processing. Tractors and processing machines belong to this category.

Subsidies. Subsidies are granted on a number of agricultural inputs and products to support local farmers particularly the small scale producers. Subsidies are structured to reduce cost of production of small holder farmers who are resource poor. The input on which farmers receive subsidies include seeds, seedling, agro chemicals, agricultural loan and credits.

Launch and implementation of the Agricultural Transformation Agenda. Specific objective is to increase, on a sustainable basis, the income of smallholder farmers and rural entrepreneurs that are engaged in the production, processing, storage and marketing of the selected commodity value chains. It aims to deliver direct benefits to economically active smallholders living in the rural areas who are already participating in commercial agriculture. The e-wallet component of the intervention has reached 14 million farmers. Nigeria is the first country in the world to develop and use e-wallet to deliver farm input at scale and several African countries are learning from us.

Establishment of the Staple Crops Processing Zones (SCPZ). The purpose of this intervention is to attract private sector agribusinesses to set up processing plants in zones of high food production with a view to processing the commodities into food products. The Federal Government is taking the lead in this process by putting in place appropriate fiscal, investment and infrastructure policies for the SCPZ. Some of the incentives to encourage investment are: tax breaks on import of agricultural processing equipment; tax holidays for food processors that locate in these zones; supportive infrastructure, especially complimentary investment by the government in roads, logistics, irrigation, flood control, storage facilities and power. The proposed infrastructure development would focus on power, irrigation, flood control, roads, rail, air etc. Farmers in the clusters will be linked to food manufacturing plants. Agricultural Investment Code will also be developed in partnership with the Ministry of Finance, Ministry of Industry, Trade and Investment, and CBN.

Insurance policy. This is instituted to guard against risks associated with farming activities, thus reducing farmers' exposure to the vagaries of weather, fire, flood, etc. Knowledge of, and access to insurance contracts remain limited and challenging. While new providers have been licensed by National Agriculture Insurance Commission (NAIC) to retail agricultural insurance, the agency remains the dominant supplier of agriculture insurance services. However, agricultural insurance penetration remains below 3 per cent when measured by farmers enrolled and cropping area covered as against the 10 per cent target when comparator countries like India and China are used as proxies.

Public-private partnership (PPP). This policy provides specific interventions and financing in projects and programmes spelling out the critical roles and responsibilities of identified stakeholders including governments, non-governmental organizations and private investors.

Freezing foreign exchange for a number of commodities. Accessing foreign exchange for the importation of a number of products is restricted to the parallel markets. For instance, in the list of 41 items restricted from accessing foreign exchange through the inter-bank foreign exchange window are agriculture produce that include rice, palm produce, meat, poultry, and tomatoes.

Tariff and levies waivers. Indigenous companies with high local content are granted special concessions and waivers on tariffs on imported goods to support local production. These could be machineries, agro-chemicals and other important inputs required for agriculture activities.

Establishment and promotion of specialized financing institutions. The purpose of establishing these institutions is to provide loanable funds and credits to actors in produce value chain at concessionary ratio including. These institutions include Bank of Agriculture (BoA), Bank of Industry (BoI), CBN Development Finance Department and NIRSAL.

Other specific special government intervention fund for promoting agriculture and agro-industry activities include: N100 billion Cotton Textile and Garment (CTG) Development Scheme for the revival of the ailing CTG sector; Rice Intervention Fund of N10 billion; Nigeria Sugar Council's N400 million Fund; and Micro Small and Medium Enterprises Development (MSME) Funds of N17.3 billion in Fifteen (15) States for the development of the MSME sector through cooperative lending scheme.

The Agriculture Promotion Policy (2016 – 2020): The Green Alternative is the current policy guide and roadmap guide government in supporting the agriculture and agro-industry sector. This policy document is motivated by the two key gaps facing the country's agriculture sector. First is the country's inability to meet domestic food requirements and second is its inability to export at quality levels required for market success. The policy was developed to meet these two binding constraints in the country's agriculture, produce enough fresh, high quality foods for the Nigerian and foreign market and diversify foreign exchange sources for the country. The policy document developed strategies that could help the country solve the core issues at the heart of limited food production and delivery of quality standards and close the persisting gaps in the implementation of the Agricultural Transformation Agenda.

The policy document established that the Agricultural Transformation Agenda (ATA) – the predecessor of the policy – was a good platform for re-engaging key stakeholders in Nigerian agriculture to shift focus towards how a self-sustaining agribusiness-focused economy could be built. This is based on the policy's target of creating 3.5 million jobs by 2015; generating foreign exchange, and reducing spending on food imports.

The ATA recorded significant successes around input supply, finance, infrastructure and logistics, production and market access. On input supply, ATA successfully set up the Growth Enhancement Scheme (GES) to register small holder farmers and provide targeted input subsidies through the e-Wallet scheme. Around 10.5 million farmers were registered and around 12 to 14 million received means-based subsidies between 2011 and 2014. There was also significant increase in access to fertilize and seeds.

On finance, FMARD's partnership with the Bankers Committee resulted in establishment of the Nigeria Incentive-based Risk Sharing Agriculture Lending (NIRSAL) that provides credit guarantees to farmers. The ₦15 billion Bank of Agriculture recapitalization was revived. Commercial bank's agriculture lending increased from around 1 per cent to 6 per cent by 2015. Creation of special fund to support farmers, example being the N10 billion Cassava Fund and the \$35 million FAFIN/KfW Facility.

The achievement in infrastructure and logistics involved designation of the Staple Crop Processing Zones and concession of the Federal Government's warehouses and storage assets.

Domestic agricultural production increased by 20.1 million tonnes, with rice paddy production increasing by between 2 and 2.5 million tonnes during the implementation period. Market access was improved through re-establishment of selected commodity marketing boards, mainly cocoa. Despite these successes, several gaps exist in all these areas, necessitating the need for the new policy.

There are several key recommendations emanating from the document. First is prioritization of improving productivity into a number of domestically focused agricultural crops and activities. These are rice, wheat, maize, fish (aquaculture), dairy milk, soya beans, poultry, horticulture (fruits and vegetables), and sugar. Second, partner closely with private investors across farmer groups and companies to develop end to end value chain solutions. Third, provide chains with facilitated government support as they make deep commitments to engage a new generation of farmers, improve supply of specialized fertilizers and protection chemicals, as well as wider scale use of high yielding seeds. Fourth, work with investors to sharply improve the distribution system for fresh foods so as to reduce time to table, reduce post-harvest losses, and overall improve nutritional outcomes such as lowering of diabetic risk, stunting risk, etc. fifth, prioritize for export markets the production of the following crops and activities: cowpeas, cocoa, cashew, cassava (starch, chips and ethanol), ginger, sesame, oil palm, yams, horticulture (fruits and vegetables), beef and cotton. Sixth, work with a network of investors, farmers, processors and other stakeholders to deepen the supporting infrastructure to ensure that quality standards are defined and maintained across the value chain. This will include adding more testing laboratories, improving traceability of crops, disseminating intelligence on export markets and consumer preferences, etc. lastly, build a high quality brand for Nigerian foods based on rigorous data and processes that protect food safety for both domestic and export market consumers.

The Strategic Framework and Implementation Plan for Job Creation and Youth Employment in Nigeria is another policy document meant to guide job creation in Nigeria with focus on the entire sectors and activities. The motivation for this policy derives from the fact that despite almost a decade of steady growth, Nigeria was unable to generate corresponding improvement in job creation with around 25 per cent of the labour force being either unemployed or underemployed. The unemployment phenomenon in the country tilts against the youths as 40 percent youths between the ages of 15 and 35 is affected. Hence, more decent jobs need to be created to accommodate teeming youths joining the labour force.

To do this more effectively and strategically, President Buhari's Administration created a Job Creation Unit (JCU) hosted in the Presidency to drive the short- to medium-term job creation interventions of government across the country. The JCU coordinates, facilitates and elevate potential growth strategies in diverse economic activities that are capable of creating jobs. It employs collaborative efforts with diverse partners and stakeholders that include public, private and civil society organizations in job creation. This strategic framework and implementation plan is developed to underpin the country's approach to mass job creation and youth employment over 2016 – 2018.

The framework identifies four high-growth sectors that were selected for prioritization in job creation policy interventions and evaluated. The sectors are: agriculture, agribusiness and agro-allied industries; construction, information and communication technology; and wholesale and retail trade. Justifiable rationales form the basis for the selection of these sectors. Agriculture, agribusiness and agro-allied sector was chosen based on its potential as national mass employer

of labour in formal and informal activities. It also has a large domestic demand and potential for import substitution in addition to its increased income potential through increasing yield and processing.

For the construction sector, its choice is informed by its ability to respond to infrastructure and housing constraints in the country and the planned significant public sector infrastructure development programs over the life of the Administration. ICT proved to be a sector of choice given its transformative effect on labour productivity and industrial expansion. Also noteworthy is its emergence as a major job creation sector and potential contribution as growth driver. Wholesale and retail trade is prioritized because it has low barriers to entry and high growth potential, coupled with its possible use as a lever for improving market linkages and formalization.

Assessment of these sectors reveals the interventions required to simultaneously create mass jobs within each sector and transform the Nigerian economy in a sustainable way. The identified interventions are development of a coherent national skills policy that prioritises demand-driven training, effective coordination of activities in the identified sectors and clusters, and industry-led skills delivery and certification. These interventions are projected to create around 3.5 million jobs over three years, covering 2016 to 2018. The study also traced the limited success in previous job creation interventions to limited engagement of the target Population, namely, the youth.

It was established that informal sector job creation opportunities should be prioritized with focus on locations most acutely affected by youth unemployment. The Northern Nigeria was identified to be area of particular need in this respect. Key wide ranging constraints and challenges facing the agribusiness and agro-allied sector were identified. These cut across infrastructure, policies, and skills. Specifically, these are low product yields, high post-harvest loss, limited processing capacity and under-utilised where available, aging farming populations, limited and inaccessibility of finance, and unsustainability and short-term nature of previous interventions.

The key recommendations of the policy are: select priority economic sectors as anchor sectors to which policy and programmatic interventions will be directed to catalyse job creation within and beyond the sectors; identify specific geographical clusters of focus within each of the defined anchor sectors in order to leverage existing comparative advantages within the clusters, optimize resource allocation, and ensure equitable distribution of job creation interventions across Nigeria's regions; define specific interventions to address skill development issues and talent supply gaps to ensure that the local labour force can fill available and emerging job positions in the short to medium term; and identify policy and infrastructure enablers required to address structural constraints, to attain competitiveness across each of the focus sectors in the long term.

Other recommendation are: coordinate implementation of defined interventions across federal and sub-national governments, driven by the Job Creation Unit, a coordination hub in the Presidency, resourced by stakeholders from the private, public and development sectors; develop a functional skills development ecosystem to optimize the expected investments in the above clusters and ensure that the current labour force has the appropriate pathways to the jobs created; institute enabling policies to improve employability; fast track implementation of approved government agriculture and agro processing programmes; incentivise youth training and employment in agriculture; develop Growth Enhancement Support Scheme (GESS) farmer

groups into processing and marketing cooperatives; and strengthen partnership with the International Institute for Tropical Agriculture (IITA).

Eboh et al (2004) was fascinated by the uneven and unequal potential competitive advantage across various activities in Nigeria. The competitive advantage arise from factors that include favourable environmental and ecological factors, low labour costs, large domestic and regional markets, and resource availability for investment in agricultural diversification and transformation.

However, the high potential of the sector is undermined by myriads of challenges that include inconsistent and poorly implemented sector strategies and programmes, weak private sector involvement in agriculture, inappropriate and inconsistent policies, grossly inefficient and miss-oriented public sector, and distorting incentive systems resulting from the rent-seeking nature of the oil sector. All of these limits the sector's ability to generate incomes, jobs and attract non-oil private sector investments. The study, therefore, seeks to develop a Nigerian perspective and standpoint for the formulation of the ECOWAS Common Agricultural Policy Framework with the overall ECOWAS regional integration process as objective.

The study adopted a critical review of secondary information/data on Nigerian agriculture and its regional features in relation to the ECOWAS common agricultural policy. It also employed a deductive logic to form judgments and conclusions about the Nigerian agriculture. This methodology yielded significant findings. First, it shows that Nigeria faces tremendous agricultural development challenges that weaken the potential of the sector to foster economic growth, poverty reduction and sustainable development.

Deriving from its findings, the authors made the following recommendations: **accelerate overall agricultural growth, productivity and incomes in a sustainable manner through improving research, extension and farmer linkages for improved technology dissemination and adoption; focus on increasing output by expanding greater productivity rather than from expanding farmlands or herd size; engender greater and higher quality private sector participation in agriculture and agribusiness development; improve agricultural input and product markets through measures to correct failure in factor and product markets; focus on providing rural infrastructure; foster dynamic backward and forward linkages within agriculture value chain involving production, processing, storage, preservation, and marketing; develop agro-based value-adding rural enterprises such as input- and service related rural commercial enterprises, agro-processing and marketing enterprises, rural infrastructure commercial service enterprises and new-niche, high-value export targeting agricultural production enterprises; and provide effective incentive structure for promoting agriculture and its effect on employment and poverty reduction through public spending on agriculture, strengthening regulatory and institutional framework, improving quality control and strengthening policy coordination.**

8. Role of the Private Sector

The commercial banks in Nigeria perceive agriculture to be a high risk and low return venture. Hence, lending to the sector by commercial banks has been very scanty and limited. However, this is a mirage because well documented research has shown a high return on investment in diverse agricultural activities (see Table 2). Generally, lending to agricultural sector by commercial banks takes place through incentives provided by the CBN. These incentives are usually through on-lending special intervention funds made available to the commercial banks

for on-lending to the sector. One of the major incentives provided by the CBN for increased lending to commercial banks is through risk-sharing.

A number of the special agriculture financing interventions of the CBN are implemented through the commercial banks. A typical example of this is the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) before it became a standalone institution. This is an initiative structured to facilitate the flow of credit to Agribusiness and collaborate with stakeholders to fix broken agricultural value chains in Nigeria. The scheme was set up by the CBN to de-risk agricultural lending and reduce the cost of borrowing. The interest rate is accessed at commercial rate (depending on customer's risk rating). This makes it less profitable for most enterprise.

Table 2: Rates of Return on Selected Agricultural Investments in Nigeria

Activity	Conditions	Total Investment (N)	Return to Capital
Agro-processing			
Aquaculture	Pond Size: 100m ² x 1.5 in. deep	155,125	900%
Rice Milling for 3 years	period of 3 years	417,040	47%
Palm Fruit Processing	period of 3 years	669,820	134%
Mellon Threshing	period of 3 years	262,817	108%
Cassava Processing to Garri	period of 3 years	656,128	102%
Cereal Processing	period of 4 years	441,135	107%
Fish Processing	period of 3 years	3,775,870	16%
Irrigated production			
0.25ha of 2.5 Ha irrigation module using 3" Honda petrol water pump and surface water supply		98,452	45%
1 ha irrigation module package with 2" honda water pump and wash bore		152,448	107%
0.5 ha irrigation module using 2" Honda water pump and wash bore		76,224	107%
0.25 ha irrigation module using 2" Honda water pump and wash bore		37,919	107%
1 ha irrigation module using 2" Honda water pump and tube well		188,398	78%
0.5 ha irrigation module using 2" Honda water pump and tube well		94,199	78%
0.25 ha irrigation module using 2" Honda water pump and tube well		47,100	78%
1ha of 2.5 ha irrigation module using 3" Robin diesel water pump and surface water supply		203,988	119%
0.5ha of 2.5 ha irrigation module using 3" Robin diesel water pump and surface water supply		101,994	119%
0.25ha of 2.5 ha irrigation module using 3" Robin diesel water pump and surface water supply		50,997	119%
1 ha of 2.5 ha irrigation module using 3" Honda petrol water		196,881	42%

Activity	Conditions	Total Investment (N)	Return to Capital
pump and surface water supply			
0.5 ha of 2.5 ha irrigation module using 3" Honda petrol water pump and surface water supply		98,452	45%
Rainfed production			
1 ha rainfed production (millet, maize, sorghum, cowpea)		61,236	25%
1 ha rainfed production (yam, maize, cassava)		103,513	53%
Livestock			
Pig Fattening	24 weaner piglets	243,810	22%
Layer hens	250 day old chicks	525,677	39%
Layer hens	200 lay birds	502,911	13%
Layer hens	200 growers	485,921	17%
Cockerel production		96,326	42%
Bull Fattening		190,808	43%
Broiler Production		141,586	71%
Ram Fattening		147,393	22%

Source: Yaro (2004)

The GES is another example of these types of interventions. This is an initiative of the Federal Government of Nigeria (FGN) under the Agricultural Transformation Agenda programme for agricultural development that commenced in 2011. The objectives are to provide input subsidy to at least five million farmers initially and ultimately ten million farmers. The goal is to accelerate local food production and introduce non-cash subsidy through the e-wallet system for farmers in the national database of FMARD. Its specific objectives include: facilitate the delivery of credit to eligible agro-dealers and seed companies for procurement of fertilizer and seeds for resale to farmers; drive the growth of the agro-input industry through the private sector and discontinue the old system of government direct procurement that has not achieved the desired impact; and create redemption centres at locations nearer to the target farmers in such a manner as to reduce transaction costs.

9. Public-Private Partnership: NIRSAL

In 2011, CBN launched a new agricultural financing strategy and platform known as Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL). It was established as a public-private initiative designed to mobilize financing for Nigerian agribusiness by using credit guarantees to address the risk of default. With a plan to raise formal agricultural lending to about 10%, NIRSAL was incorporated as a public liability company in 2013. Its core objectives are to:

- Fix the broken agricultural value chains to de-risk agricultural lending.
- Mobilize finance for Nigerian agribusiness by using credit guarantees to address the risk of default.
- Provide technical assistance through capacity building across agriculture value chains.
- Reduce the cost of borrowing.
- Provide technical advice to agribusinesses.

Its operations are expected to cover all crops and livestock activities in Nigeria and also build on previous legacies of CBN interventions in agriculture that has helped create thousands of jobs.

Five key pillars were established under NIRSAL: Risk Sharing Fund; Technical Assistance Fund; Insurance Facility; Bank Rating; and Bank Incentive Mechanism. NIRSAL focuses on using innovative finance strategies such as its Risk Sharing, Credit Guarantee, Incentives and Insurance support instruments to leverage commercial capital into agricultural value chains. It also aims to build capacity of farmers, value chain actors and financial institutions in agricultural finance and good agricultural practices, using its technical assistance window. It acts in advisory capacity, offering strategic and investment advice to financial institutions, agribusiness operators and farmer groups. Also, it partners with other key value chains operators including development institutions, the federal, state and local governments on how to create an enabling business environment for agriculture as a business.

Since inception in April 2012 to date, NIRSAL had facilitated loans to agricultural value chain operators, through its counterparties. Cumulatively, it has executed (539) Credit Risk Guarantees to date with a total value of almost ₦61.5 billion. Under its capacity building window, NIRSAL has contributed to employment generation in the agriculture sector by training smallholder farmers on good agricultural practices and imbibing the culture of seeing agriculture as business in order to ensure that farmers earn higher returns from their investment and cultivate the habit of timely loan repayment. Over 90,000 farmers have been trained to date in rice, cocoa, cotton, and tomatoes.

NIRSAL has established a mechanization framework that supports equipment purchase through mechanization service providers. It also provides guarantee to banks and other financial institutions to finance procurements of agricultural machines for land preparation and development. As at now, NIRSAL has engaged with FCMB and Sterling Bank to guarantee over ₦696 million for the purchase of 179 tractors, equipment and power tillers through the Tractor Owners and Hiring Facilities Association of Nigeria (TOHFAN). NIRSAL has challenged the Tractor Owners Association of Nigeria (TOAN) to come on the platform and start financing its members to acquire agricultural machines nationwide.

NIRSAL is also pioneering input production financing. Nigeria is a major importer of all high quality seeds. This is due to the limited role of agricultural research institutions in developing certified seeds to meet the needs of farmers. This has resulted in low output recorded by farmers nationwide. To checkmate these problems and curtail seeds importation, NIRSAL is working with the National Seeds Council of Nigeria (NASC) and the Association of Seeds Councils of Nigeria (SEEDAN) to establish a financing framework to commercially finance high quality seeds production of diverse crops in Nigeria. NIRSAL is providing the guarantee and enabling support for research and seed multiplication activities to meet the demand for seeds in the country.

NIRSAL is financing production by small, medium and large scale farmers. Financing of small scale farmers is highly critical and challenging. Most financial institutions are risk averse and are, therefore, reluctant to lend to this class of farmers that make up between 70 and 80 per cent of the total farming society in Nigeria. NIRSAL provides 75 per cent guarantee on the face value of the loan and 40 per cent interest rebate to cushion the commercial interest that is posted by the financial institution to small holder enterprises. In addition, NIRSAL works with every project from start to finish (end-to-end linkage). At its inception in 2011, the total lending of all banks to agriculture was only 1 per cent of their total portfolio combined but currently it stands at about 7 per cent of banks' portfolio from 2013 to date (*See Table 3 for NIIRSAL's guarantee and interest drawback terms*).

In NIRSAL, all finances across the value chain is associated with the development of financing framework which is accepted by all stakeholders working within the segment of the value chain

that require financing. This makes financing by financial institutions become acceptable and easier. Detailed NIRSAL guarantee terms for each and every level of engagement is shown in Table 3 below.

Table 3: NIRSAL Guarantee and Interest Drawback Terms

Source: NIRSAL

Category Number	Category	Single Obligor Limit (Naira)	CRG Cover	IDB payable on face value of loan
1(a)	Smallholder Farmers, Farmer Groups and (Livestock, Poultry, Aquaculture and Single or Mixed Cropping)	5 Million	75%	40%
1 (b)	Cooperatives	50 Million	75%	40%
1 (c)	Large Scale Primary Producers: (Livestock, Poultry, Aquaculture and Single or Mixed Cropping)	2 Billion	50%	20%
2(a)	Mechanization	50 Million	75%	40%
2 (b)	Large Scale Mechanization	2 Billion	50%	20%
3	Processors	2 Billion	50%	20%
4	Integrated Farms	2 Billion	30%	20%
5	Logistics Provider	2 Billion	30%	20%
6	Agro-dealers, Input and Equipment Suppliers	2 Billion	30%	20%

10. Role of Donors

10.1 African Development Bank

African Development Bank approved a USD9 million equity investment, representing approximately 12 per cent of the fund's capitalisation in the Fund for Agricultural Finance in Nigeria (FAFIN) to provide expansion capital to agricultural small and medium-sized enterprises (SMEs). FAFIN is a first-generation private equity fund that provides financial, capacity-building and technical assistance to commercially viable SMEs in the Nigerian agribusiness sector, through a unique value chain-centric approach, and using a combination of equity, quasi-equity and convertible loan instruments. FAFIN implements its strategy and constructs its portfolio through a bi-focal lens consisting of the twin objectives of competitive financial returns and measurable positive social impact. The Fund is jointly sponsored by the German Development Bank (KfW) and the Government of Nigeria, through the Federal Ministry of Agriculture and Rural Development (FMARD) and managed by Sahel Capital (Mauritius) Limited. The Fund's primary focus is on SMEs across the agricultural value chain with crop value chain and geographic diversification. It aims at fixing broken value chains to increase efficiencies, reduce post-harvest loss, and increase smallholder farmer incomes and SME agribusiness profitability.

Two other important interventions are the ENABLE Youth Nigeria Programme and Agricultural Transformation Agenda Support Program. Both programmes target fostering inclusive growth through agriculture with focus on generating jobs for the youth and the wider population.

10.2 United States Agency for International Development (USAID)

In 2013, USAID, the Central Bank of Nigeria and Federal Ministry of Agriculture and Rural Development launched a partnership in which the parties expect to leverage up to \$100 million in commercial lending for the country's agriculture sector through a signed Memorandum of Understanding. The interventions aimed at engaging financial institutions, providing technical assistance, exploring new financial products and establishing a staff exchange program to encourage growth of the Nigerian agriculture sector. It focuses on delivering true market linkages that will drive growth, deliver profits, and expand opportunities for poorer and marginalized communities around the country. USAID has partnered with six Nigerian banks to provide up to \$34 million in guaranteed financing for health, agriculture, energy, and housing.

10.3 Food and Agriculture Organization

FAO is responsible for the formulation and design of the Youth Employment in Agriculture Program (YEAP) to create decent jobs in the Nigerian agriculture sector with some support from the ILO. The programme has three components: promoting enabling environment for young women and men employment; support young women and men to engage as N-Agripreneurs and market-oriented producers; and monitoring and evaluation (M&E). The first two have direct relevance to promoting job creation and inclusive.

To promote enabling environment for young women and men employment, the programme supports a broad-based policy dialogue, ensure coordination with national stakeholders and international, promote adequate financial and insurance services, and develop a knowledge platform, foster States accompanying investments, and rebranding the agricultural sector. On the second component, the programme creates awareness and promotes agriculture as a business, engage in value chain mapping, strengthen professional organizations and governance bodies, supports investment, links young entrepreneurs and their associations with N-Agripreneurs, and engage in agriculture, business and life skills support.

This intervention aimed to develop a new cadre of 740,000 market-oriented young agricultural producers in rural areas. These were expected to be school leavers and rural youth leaders of 20,000 per state. It also aimed to develop 18,500 university graduates that will be organized into young agribusiness entrepreneurs called "nagropreneurs". These would develop businesses along the entire agricultural value chains spanning the farm, storage, processing and value addition, financial services and logistics. Leveraging the presidential schools initiative, it aimed to connect the young school children in agriculture to the Nagropreneurs, and grow them to become the new Nigerian millionaires and billionaires. Through the YEAP intervention, successful youths were provided with wide array of support that include access to land, technical, entrepreneurial, finance, business and marketing skills, and mentorship.

10.4 Others

There are several other initiatives that cover both demand and supply side and include programs and studies by development partners such as IFAD, USAID, DFID, GTZ and the World Bank. On institution building with semi-formal and formal agriculture finance providers, a number of programs aimed at strengthening service providers are being implemented. Among these is IFAD's Rural Finance Institution Building Programme (RUFIN). It also supported strengthening rural MFIs and established linkages between them and more formal financial

institutions. On the demand side, USAID undertook a demand survey for financial services by micro, small and medium enterprises (MSMEs) in Nigeria. The USAID work complements DFID and World Bank efforts on the interface between private sector development and, among other things, access to finance. The World Bank's MSME project also supports urban-based Greenfield MFIs.

UNDP has engaged in capacity building for NGO-MFIs through its MicroStart Program since 2000. The top MFI performers in this program – Development Exchange Centre (DEC), Justice Development and Peace Commission (JDPC), and Life above Poverty Organization (LAPO) – continue to receive support to help expand their operations. While MicroStart does not have a specifically rural vocation, DEC and JDPC have a primarily rural client base, while LAPO has just recently started an initiative to channel more financial resources to rural communities. With between 15,000 to 20,000 clients each, these are by far the most successful MFIs in Nigeria.

11. Emerging Trend in the Literature

This literature review reveals several noteworthy emerging trends. A few of these are highlighted below.

Agriculture and agribusiness have high potential for promoting inclusive growth in Nigeria. To illustrate, out of the total land area of about 68 million hectares in Nigeria that is capable of supporting agricultural, only 33 million hectares are currently under cultivation. Also, mere 7 per cent of the estimated 3.14 million hectares irrigable land area is actually being cultivated. This reveals the large existing gap and untapped potential of agriculture for reducing poverty, increasing income and generating employment. Another source of potential is the large annual food imports bill of about US\$22 billion, mainly on basic necessities like rice, wheat, sugar and fish. Bridging this gap through domestic production will put a lot of Nigerians to work with high potential for improved livelihood.

There is a seeming consensus on key challenges limiting the potential of agriculture and agribusiness to foster inclusive growth in Nigeria. Illiteracy is a challenge as majority of smallholder farmers lack basic education. Use of manual farm tools and method of farming as most farmers still rely on the use of hoes and cutlasses to prepare land, plant and harvest. This is the result of illiteracy and non-availability of modern farming equipment and technology. Poor infrastructure. Lack of basic infrastructure like feeder roads, storage facilities, irrigation, electricity, and processing infrastructure constrain the sector's potential. Institutional weakness in research and development. A large percentage of the tons of agricultural research institutions are in a state of comatose, sometimes emanating from funding and capacity issues. Input and commodity prices are also highly unstable. Inconsistencies in agricultural policy also contribute to limiting the potential of agriculture and agri-business. There is also the challenge of high post-harvest losses where between 20 – 40 per cent of annual harvest is lost as a result of poor storage and processing facilities.

Coordinated and focused policy interventions are required to mainstream agriculture as engine of inclusive growth. Presently, different stakeholders and actors in the agriculture and agribusiness in Nigeria appear not to have sufficient synergy on their interventions. Many of these stakeholders appear to be working in silos without sufficiently

'talking' to each other. Hence, the possibility of duplication and dissipating energy in a sector while other important ones are being neglected is high.

Rural infrastructure imperative to generate and sustain job creation in agriculture and improve rural livelihood. One way to encourage agriculture and agribusiness, especially for the youths is to make the rural sector sufficiently attractive to live. This will require the provision of basic hard and soft infrastructure and amenities like electricity, potable water, health care facilities, schools, etc. In addition, agriculture and rural livelihood supporting infrastructure are also needed to promote agriculture and agribusiness. These include feeder roads, storage facilities, irrigation, etc.

Agriculture value chain development offers opportunity for increased rural livelihood. Nigeria has high potential for agriculture value chain development in several commodities. The key ones are cassava, cocoa, cotton, rice, tomato, palm oil and livestock. The benefits of agriculture value chain development are numerous. They assure buyers of good and acceptable product quality, supply and safety through integrated systems spanning production through retail. It also assures producers of a market and the benefits of economies of scale. It improves access to the market and reduces the time needed to respond to changing customer demand, as a result of better communication with partners in the chain.

There is a large untapped pool of employment opportunities in agriculture. However, this is moderated by drudgery and lack of interest by youths. Sometimes, this lack of interest is the result of poor remuneration associated with low-productivity of the sector. Risks associated with agricultural activities also limit the interests of youths in agriculture, thus limiting its employment potential.

12. Conclusion and Recommendations

To ensure that agriculture lives up to its potential to generate employment for the teeming population, especially youths in Nigeria, all hands must be on deck. There is specialized roles for all stakeholders in this regard. Therefore, this section contains recommendations for specific stakeholders in the agriculture value chain with a view to improving employment creation potential of the sector.

- **Government**

Develop agriculture value chains in areas of comparative advantage. This should be planned over the short, medium and long-term. There is a wide array of commodities to choose from. These include rice, cassava, wheat, cocoa, cowpea, groundnuts, oil palm, rubber, maize, soybeans, cotton, tomato and sugarcane.

Develop the agro-industry through upgrading and modernization. This can be achieved through promotion of science and technological innovations and human capacity for agro-industrial development. This will help promote competitiveness of agriculture and agro-industry sector through increased productivity.

Accord indigenous technology a prominent role in promoting agriculture and agro-industry. Intensive use of indigenous technologies should be considered for the agro-industry sub-sector and integrated into activities of institutions focusing on technology development. This is imperative because indigenous technology is a necessary condition for

building successful technological capabilities and sustaining domestic efforts that would effectively adapt foreign technology.

Develop the export market and promote trade at regional and international levels.

The starting point will be to focus on leveraging West African regional integration based on commodities for which the country has comparative advantage and then gradually scale up to the central Africa, the entire African continent and then globally. This may require taking advantage of global initiatives like the Africa Growth and Opportunity Act (AGOA).

Promote private enterprise and foreign direct investment (FDI) in agro-industries.

This can only be achieved if the return on investment in the sector is improved and the risks associated with activities are minimal. Business environment has to be relatively stable and predictable and so is both personal security and security of investment. Also important is attractive fiscal incentives for investors engaged in the sector.

Promote agro-industry and rural infrastructure development. The infrastructure would specifically target the peculiarities of the sector. Both hard and soft infrastructure such as roads, electricity, healthcare facilities, education facilities, etc, should be provided for the rural areas to attract and keep Nigerians, especially the youths in the rural areas for gainful employment in agriculture.

Develop sufficiently robust political will. Policy interventions should not be limited to pronouncements only. Government should ensure effective implementation and follow through on all implementation activities. Strong monitoring and evaluation system should be instituted to track implementation and monitor progress.

Ensure proper Policy Framework. Government should focus on its role in providing clear and consistent policy direction and serve as facilitator to promote private sector involvement in agribusiness. This will assure certainty and further instil confidence for private sector engagement in agribusiness.

Promote availability of adequate capital. To succeed, agribusiness requires adequate financial capital, machineries, human capital, improved seedlings, fertilizers, pesticides, etc. provision of capital in these different forms through government special interventions and commercial loan guarantees coupled with entrepreneurial trainings will help achieve this.

Encourage commercial farming while nurturing smallholder farmers. There is need for balance in the support provided for agriculture and agro-industry. Smallholder farmers should be given equal support as those being provided for the commercial farmers. These two categories of agro-industry participants complement each other and contribute to overall inclusive growth in the sector.

- ***Farmers, especially young farmers***

Increase your visibility. There is a Nigeria adage that says, “If you don’t say ‘here I am’, nobody will say ‘there you are’”. This suggests that self-projection is necessary to achieve recognition. One way to achieve this is by leveraging rapidly evolving technology and synergy in the entire agriculture and agribusiness value chain. Through technology and synergy, farmers will be able to showcase their perspectives and make them available to policymakers, thereby contributing to the development of policies that will have impact on them.

Promote self-support through self-help organizations. This can be achieved through establishing and nurturing cooperatives in diverse areas of the agriculture and agro-processing value chain. Cooperative organizations have the potential for providing synergy among members to tackle key local challenges that include poverty, food insecurity and unemployment. It has high potential to deliver basic goods and services to members in areas where provision of public and private services have either broken down or failed. The opportunities cooperatives offer in harnessing the local talents and potentials for job creation and poverty reduction should be well utilized.

- ***Donors***

Improve donor coordination. Donors (bilateral, multilateral, and philanthropic) should provide a sense of effective coordination in their intervention in agriculture and agro-processing at country level. This will help avoid undue multiplicity and duplication of some types of interventions while other important ones are being neglected. Global initiatives such as the General Assembly of the Global Donor Platform for Rural Development (GDPRD) should be further encouraged and domesticated at country level in SSA.

Assist in promoting inclusive growth through provision of technical assistance to all segments of the agriculture value chain. Indeed, donors support to agriculture through interventions such as the Comprehensive Agriculture Development Programme (CAADP) is highly commendable. More grants should be made available by donors to fund various youth empowering interventions in the entire agriculture and agro-processing value chain.

- ***Cross-cutting***

Strong partnership among all stakeholders is crucial for success. National and sub-national governments should partner with farmers to allocate and grant them access to land for agricultural purpose. While the federal Government is promoting agriculture and agribusiness, it does not have control over land allocation for this purpose; the State Governments do. Effective partnership between the Federal and State Governments is necessary to make the needed land available for farming. Therefore, the Federal and various State Governments should continually work out modalities for ensuring more and more farmlands are opened up and made available for youths interested in agriculture and agro-processing businesses.

Treat agriculture as a national priority. All stakeholders need to join hands together to accord high importance and priority to agriculture sector, especially employment generation for the populace. This is important to ensure its sustainability. One specific policy action to achieve this is through increased government, donor and private sector funding of agriculture and agribusiness activities. All stakeholders could also demonstrate the priority accorded agriculture and agribusiness through other forms of support that include specific government incentives to attract direct investment and other forms of foreign capital to the sector, and provision of inputs.

Promote agribusiness education and youth vocational training. This should not be left to the Federal Government alone. Sub-national governments, donors, and private businesses should provide support. All stakeholders should join hands in providing effective training for youths as a strategy for encouraging their involvement in agriculture and agribusiness.

References

- Adesugba, M. and Mavrotas G. [2016]. Delving Deeper into the Agricultural Transformation and Youth Employment Nexus: The Nigerian Case. *Nigeria Strategy Support Programme Working paper No 31*. International Food Policy Research Institute.
- Ajakaiye, O., Afeikhena T. J., Nabena D., and Alaba O. A. [2016]. Understanding the relationship between growth and employment in Nigeria. Project report on 'Understanding the African Lions: Growth Traps and Opportunities in Six Dominant African Economies' commissioned by UNU-WIDER, Brookings Institution and the Development Policy Research Unit (DPRU) at the University of Cape Town.
- Akande, T. [2012]. Nigeria. In Wohlmuth, Karl, Patrick M. Kormawa and Jean Devlin. *Agribusiness for Africa's Prosperity Country Case Studies*. Working Paper, Second Edition. UNIDO.
- Ayinde, A. F, Kwaghe, P. V., Agbibo, D. E., & Jijji, S. A. [2016]. *Political Settlement Analysis of Employment Creation in Agriculture and Agro- industries in Nigeria*. Partnership for African Social and Governance Research (PASGR) Working Paper No. 015, Nairobi, Kenya.
- Ayinde, O. E. [2008]. Empirical analysis of agricultural growth and unemployment in Nigeria. *African Journal of Agricultural Research* 3 (7): 465-468.
- Ebere, C. and Osundina K. C. [2014]. Government Expenditure on Agriculture and Economic Growth in Nigeria. *International Journal of Science and Research* 3(9): 188 – 194.

- Eboh, E. C., Kalu O. O., Okey G. O., Uzochukwu S. A., and Oliver C. U.. [2004]. Towards the ECOWAS Common Agricultural Policy Framework: Nigeria Case Study and Regional Analysis. *African Institute for Applied Economics*.
- Ehui, S. and Marinos T. [2009]. The Role of Agriculture in Nigeria's Economic Growth: A General Equilibrium Analysis. Paper presented at the 27th Conference of the International Association of Agricultural Economists (IAAE), 16 – 22 August, Beijing, China.
- Federal Republic of Nigeria [2016]. Strategic Framework and Implementation Plan for Job Creation and Youth Employment in Nigeria. Office of the Vice President/Dalberg Global Development Advisors.
- FMARD [2016]. The Agriculture Promotion Policy (2016 – 2020): The Green Alternative. Federal Ministry of Agriculture and Rural Development.
- Manyong, V. M., Ikpi, A., Olayemi, J. K., Yusuf, S. A., Omonona, R. and Idachaba. F. S. [2005]. Agriculture in Nigeria: Identifying Opportunities for Increased Commercialization and Investment. A USAID-funded Research Report.
- Ogbalubi, L.N. and Wokocha, C. C. [2013]. Agricultural Development and Employment Generation: The Nigeria Experience. *IOSR Journal of Agriculture and Veterinary Science* 2(2): 60 – 69.
- Okonkwo, O. N. and Uwazie I. U. [2015]. Green Economy and Its Implications for Economic Growth in Nigeria. *Journal of Resources Development and Management* 11: 15 – 21.
- Oyakhilomen, O. and Rekwot G. Z. [2014]. Agricultural Production and Economic Growth in Nigeria: Implication for Rural Poverty Alleviation. *Quarterly Journal of International Agriculture* 53(3): 207-223.
- Tersoo, P. [2013]. Agribusiness as a Veritable Tool for Rural Development in Nigeria. *Mediterranean Journal of Social Sciences* 4(8): 17 – 25.
- UNIDO, CBN and BOI. [2010]. Unleashing Agricultural Development in Nigeria through Value Chain Financing. Working Paper. United Nations Industrial Development Organization.